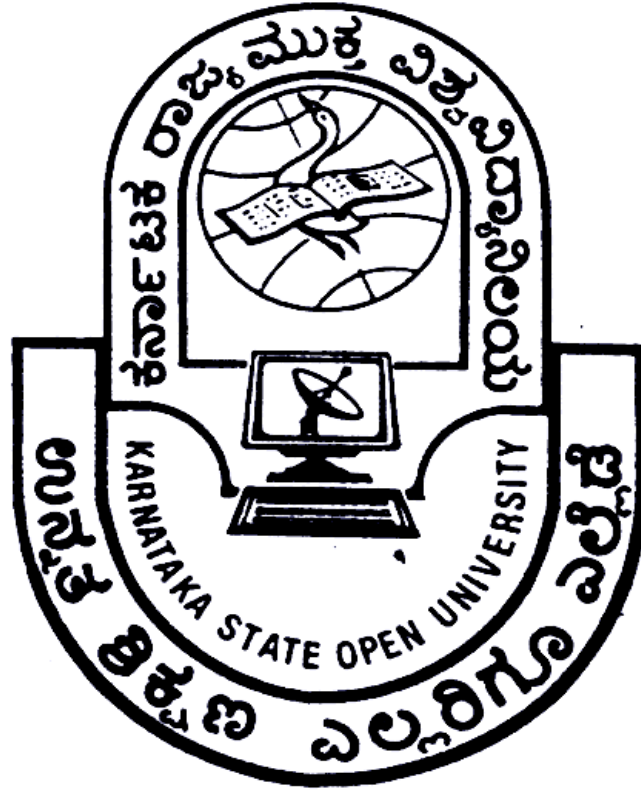


**KARNATAKA STATE OPEN UNIVERSITY**

**PROGRAMME GUIDE**

**MASTER OF ARTS in ECONOMICS**



**DEPARTMENT OF POST GRADUATE STUDIES AND  
RESEARCH IN ECONOMICS**

**Mukthagangothri, Mysore – 570 006**

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December, 2021

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Further, information on the Karnataka State Open University courses may be obtained from the University's office at Mukthagangotri, Mysuru – 570 006.

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## 1.1 ABOUT THE UNIVERISTY

The Karnataka State Open University is recognized by the University Grants Commission under (Open and Distance Learning & Online Learning) Regulation 2017. The University was established in June 1996 with a vision “Higher Education to Everyone, Everywhere”. The University blossomed in the era of globalization in which the economies of the world are being transformed from their original closed self-sustaining structure to the globalized context, where they can expose themselves to the competitive world. This transition forced the arena of knowledge emphasizing itself to more of its application than of accumulation of facts. The Karnataka State Open University in order to cope with the present global environment, is attempting to integrate interdisciplinary approaches in the dissemination of knowledge with the aim of achieving overall human personality development. Mysuru is a historical centre possessing a rich cultural heritage which had valiant historical events of different kingdoms and humane social setup of incomparable stature. University has paved the way for realizing the vision at the international arena leading to human welfare. It was started during the year 1996 as a separate entity to cater to the needs of thousands of young aspirants of higher education. The KSOU is situated at heart of Mysuru city, the University operates in 50 Acre of land in a fully green ambience. The University is offering UG, PG and Ph.D. programs besides diploma and PG Diploma programs in various disciplines. The University is fully equipped with 28 academic departments controlled by the chairpersons and supported by other faculty and non-teaching staff. The University is offering various degrees and diploma in Humanities, Social Science, Science, Commerce and Management. The KSOU is carved mainly with an intention of promoting unprivileged group of society and hence the fees for all the courses at affordable rate. The Open Distance Learning system is a unique and challenging because, the learners joining Open Distance Learning hailed from a diverse socio-economic background and with a varied learning background. The present conventional university system could not meet the genuine needs of such students who could not pursue their studies in a conventional ‘university for various reasons. In order to give them an opportunity to pursue their studies in Open Distance Learning, this University has been established.

The major objective of the University is to generate human resources of top quality with more emphasis laid on the following issues:

- (1) To transform guiding vision into action plan through various measures.
- (2) To generate high quality human resources through skill training.

- (3) To provide opportunity to those who discontinued their studies.
- (4) To provide opportunity to working class to acquire higher knowledge.
- (5) To provide opportunity to pursue higher education at their own places.
- (6) To provide transparent manner of admission.
- (7) To transfer restricted learning to a global-based learning.
- (8) To promote new concept and new direction to higher education.
- (9) To promote multiple imperatives to achieve the national development.
- (10) To play critical role in addressing social imperatives.
- (11) To create adequate student-support services for innate capacity building.

## **1.2 ABOUT THE DEPARTMENT OF STUDIES AND RESEARCH IN ECONOMICS**

**The Department of Studies and Research in Economics** was established in the late 1970's under the aegis of the erstwhile ICC & CE. A premier institute of Correspondence Education of University of Mysore. The institute with its infrastructure including human resources was transformed into an independent KSOU in 1996. The faculties in the department could spread their wings into many courses including research. The M.A Economics is one of the most demanded courses in the country today as it develops the required knowledge, skills, and attitudes among the students for the successful handling of banking, economic analysis, trade and industry and competitive exams.

The Department of Studies and Research in Economics works with an aim of fostering in the students an attitude of objective inquiry. The Department equips students with the latest developments in the field of current economic issues and challenges and trains them to apply the theory of economics in the practical application. It seeks to enable them to handle the challenges of growth and transformation of businesses through critical thinking, rational attitude and quality decision making. It is dedicated to developing the students into responsible citizens of the country with high moral values, understanding the problems of human relationships and developing a capacity to appreciate the finer values of life.

The Department is offering the following programmes:

1. Doctor of Philosophy (Ph.D.)
2. Master in Economics (M.A)
3. Bachelor of Degree (B.A)

The Department of Economics is offering the **Master of Arts in Economics (M.A)** Programme under CBCS in the following Dual Specialisations

Sl. No.	Group	Specialisations
1.	Group A	Rural Development
2.	Group B	Demography
3.	Group C	Welfare Economics
4.	Group D	Contemporary Indian Economy

**Doctor of Philosophy (Ph.D.)** in Economics takes a minimum of 3 years of duration to get completed and can be studied up to a maximum of 6 years. Ph.D. programme in Economics is governed by KSOU Ph.D. Ordinance – 2018. Ph.D. in the department is conducted in a regular mode strictly as per the UGC Ph.D. Regulation 2016. Presently there are 4 Research Supervisors in the Department and 15 students are enrolled for their Ph.D. Programme.

**Bachelor of Arts (B.A)** is of 3 years undergraduate programme. The course is designed to provide students with a wide range of managerial skills and understanding in streams like money, banking, fiscal policy, international trade and finance, economics of development and current economic condition of India. The Bachelor of Arts in Economics programme prepares the students for a career in economic analysis, competitive exams of banking, KPSC and UPSC Exams, Statistical officers, banking, insurance, stock market and also various sectors.

### 1.3 PROGRAMME'S MISSION AND OBJECTIVES

#### **Mission:**

1. To sustain contents and creativity besides stimulating proximity and participation
2. To wake up the clientele to the hard realities of life and the highly competitive scenario which is fast emerging and limiting the opportunities
3. To strengthen the institutional networking for knowledge sharing and academic excellence
4. To make the learner a responsible citizen in the community.
5. To offer affordable course and programme to meet the academic needs of all stake holders

#### **Objectives:**

M.A Economics programme is an embodiment of the objectives stated as under:

- To provide quality higher education with emphasis on educating the clientele by offering relevant, accessible and affordable, student – focused learning, which prepare them to render service and leadership.
- To orient the students' knowledge of major current economic issues.
- To enhance qualities of innovation, discovery and research along with implementing the regular curriculum.
- To impart the learners with the major economic concepts, issues and governmental programme and problems in its implementation
- To take proper decision from household management to the international business transactions.

#### **1.4 Relevance of the programme with HEI's Mission and Goals:**

M.A in Economics in distant mode imparts the knowledge and required skill to the candidates. This is by an in depth investigation into the broad range of Economics at regional, state, national and International level. M.A Economics programme invariably is the composition of the courses which enhance the knowledge and skill required for the present economy.

#### **Nature of Prospective Target Group of Learners:**

- Candidates who have successfully completed qualifying examination (12+3 or 10+2+3) or any equivalent degree.
- Graduates from any discipline other than the cognate shall study Master Preparatory Programme (MPP).
- Graduates in concerned subject who could not access to conventional system of education such as married women, unemployed, senior citizens, working sections of society in Public, Private, NGO's etc.,
- Graduates from economic socio and cultural locational disadvantaged groups including inclusive groups.

## 1.5 Appropriateness of programme to be conducted in ODL mode to acquire specific skills and competence:

M.A in Economics conduct contact classes and prepared Self- Learning Material (SLM) which is subjected to revision periodically, so as to cover contemporary changes in the stipulated arena. The requisite skill and the competencies is by the interaction both in print and electronic version. Further the contact classes, counselling helps in the direction. Therefore with the Self Learning Material, contact classes and counselling, the programme parallels conventional mode of delivering the contents in dissemination of knowledge. Critical reasoning and perception of learners can be assessed through continuous assessment. The structure of the programme is designed in such a way the delivery materials with the structure of the conventional mode.

The ICT enabled teaching and learning in the university is a big support for the learners in an endeavour to gain competencies of the learners at the door steps. Audio video recording system in place, which will be used appropriately.

### **Instructional Design:**

Curriculum development plays a very vital role in imparting quality education. The curriculum is designed keeping in view the norms of UGC from time to time. The instruction is designed as per the credits. The student programme guide, the self-learning material both in print and electronic are pressed in to the service to promote quality and excellence in all fronts. For that purpose, the university takes the following measures:

1. **Articulated:** Curriculum articulation has been adopted to avoid conflicts across the different areas. Development of a logical and sequential instructional flow from one year to the next year. Curriculum articulation is maintained at all levels of studies reducing and eliminating repetitions by establishing sound linkages wherever necessary.
2. **Realistic Contents:** Contents are developed keeping in view of the contributions expected of a student in his career. Career role with specific tasks, knowledge, skills, attitudes, and values are considered for development of curriculum. The content of the programme is delivered by way of self-learning material which is prepared by academicians of reputed both in the university and other institutions.

3. **Evaluation – Conscious:** The curriculum being developed keeping in view of evaluation-conscious, logical, accurate and measurable curriculum are being designed.
4. **Employability:** The curriculum is being developed to bridge the gap between the academic knowledge and job market requirement at various levels.

## 1.6 CHOICE BASED CREDIT SYSTEM (CBCS)

Choice based credit system (CBCS) is an internationally acknowledged system. Therefore, the entire higher education in India is transforming itself to this uniform grading system. The CBCS provides an opportunity for the students to choose courses from the prescribed courses comprising core, elective/minor or skill based courses. The courses can be evaluated through the grading system, which is considered to be better than the conventional marks system. This will benefit the students to move across institutions within India to begin within and across countries. The uniform grading system will also enable potential employers in assessing the performance of the candidates. In order to bring uniformity in evaluation system and computation of the Cumulative Grade Point Average (CGPA) based on student's performance in examinations, the University Grants Commission has formulated the guideline which is being followed. The choice based credit system not only offers opportunities and avenues to learn core subjects but also exploring additional avenues of learning beyond the core subjects for holistic development of an individual. The CBCS will undoubtedly facilitate us benchmark our courses with best international academic practices. Advantages of the choice based credit system are:

- Shift in focus from the teacher-centric to student-centric education.
- Student may undertake as many credits as they can cope with (without repeating all courses in a given semester if they fail in one/more courses).
- CBCS allows students to choose inter-disciplinary, intra-disciplinary courses, skill oriented papers (even from other disciplines according to their learning needs, interests and aptitude) and more flexibility for students.
- CBCS makes education broad-based and at par with global standards. One can take credits by combining unique combinations. For example, Physics with Economics, Microbiology with Chemistry or Environment Science etc.
- CBCS offers flexibility for students to study at different times and at different institutions to complete one course (ease mobility of students). Credits earned at one institution can be transferred.

### 1.6.1 OUTLINE OF CHOICE BASED CREDIT SYSTEM:

1. **Core Course:** A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.

2. **Elective Course:** Generally a course which can be chosen from a pool of courses and which may be very specific/specialized/advanced/supportive to the discipline/ subject of study or which provides an extended scope or which enables an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill is called an Elective Course.

**2.1 Discipline Specific Elective (DSE) Course:** Elective courses may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective.

**2.2 Generic Elective (GE) Course:** An elective course chosen generally from an unrelated discipline/subject, with an intention to seek exposure is called a Generic Elective. A core course offered in a discipline/subject may be treated as an elective by other discipline/subject and vice versa and such electives may also be referred to as Generic Elective.

3. **Ability Enhancement Courses (AEC):** The Ability Enhancement (AE) Courses may be of two kinds: Ability Enhancement Compulsory Courses (AECC) and Skill Enhancement Courses (SEC). "AECC" courses are the courses based upon the content that leads to Knowledge enhancement; i. Environmental Science and ii. English/MIL Communication. These are mandatory for all disciplines. SEC courses are value-based and/or skill-based and are aimed at providing hands-on-training, competencies, skills, etc.

**3.1 Ability Enhancement Compulsory Courses (AECC):** Environmental Science, English Communication/MIL Communication.

**3.2 Skill Enhancement Courses (SEC):** These courses may be chosen from a pool of courses designed to provide value-based and/or skill Component in Under-Graduate Courses Project work/Dissertation is considered as a special course involving application of knowledge in solving / analysing /exploring a real life situation/difficult problem. A Project/Dissertation work would be of 6 credits. A Project/Dissertation work may be given in lieu of a discipline specific elective paper

## 2.0 MASTER OF ARTS IN ECONOMICS PROGRAMME

The School of Economics is one of the leading schools in Karnataka State Open University, has designed and developed an innovative Programme; Master of Arts in Economics (M.A) with four dual specializations namely Rural Development, Contemporary Indian Economy, Demography and welfare economics. The Main objective of this programme is to equip the students with necessary conceptual, analytical and entrepreneurial skills required for handling as well as establishing their own business ventures. The curriculum focuses on the applied aspects of business operations. The course curriculum is designed and prepared by well-experienced academicians in the field of Economics.

**Credit System:** The Karnataka State Open University follows the credit system for all its programmes offered. Each credit accounts to 30 hours of study comprising all learning activities. Thus, a four credit course involves 120 hours. All M.A programme courses are divided into 4 groups namely Hard-core Courses, Soft-core Courses, Inter-disciplinary Courses and Skill Enhancement Courses. This will help the students to understand the academic effort one has to put in, in order to complete the course successfully.

Sl. No	Course Category/Group	Credits	Study Hours
01	Hard Core Courses	4/3	120
02	Soft Core Courses	3	90
03	Inter-disciplinary Courses	2	60
04	Skill Enhancement Courses	2	60

**Duration: 2 years (4 Semester)**

**Table 1: Norms for delivery of M.A Economics courses through distance mode**

No. of Assignments	Total learning hours	No. of counseling sessions	Size of SLMs range	Credit value of the Course
2	120 hours	*12 hours**	16 units	4 credits
2	90 hours	*09 hours**	12 units	3 credits
1	60 hours	*06 hours**	08 units	2 credits

\*10% of total learning hours of a course are earmarked to deliver lecture in PCP/counselling.

\*\*21 hours includes well packed lecturing, and apt counselling by the well experienced academicians. For this purpose face to face, audio visuals and virtual tools will be adopted.

## **2.1 ELIGIBILITY CONDITIONS FOR ADMISSION TO M.A ECONOMICS PROGRAMME**

**Level-1:** Candidates who have obtained Bachelor's Degree from any recognised University of three years duration without studying Cognate Subjects. Such admitted candidates have to qualify the Master's Preparatory Program (MPP) examination conducted by the Karnataka State Open University.

**Level-2:** Candidates who have passed three years B.A with studying Economics as cognate subject in Degree Examination of any recognized University or an examination of any University considered equivalent thereto.

## **2.2 DURATION OF THE PROGRAMME:**

The study of the programme is spread in **two years** with the time range to complete the programme in N+2.

## **2.3 MEDIUM OF INSTRUCTION**

The medium of instruction of M.A Economics Programme is 'English' and 'Kannada', examination may be answered either in English or Kannada.

## 2.4 EXPECTED PROGRAMME OUTCOME

- Responsible citizens in competitive world
- Employability and communication skills.
- Responsible citizens in competitive world.
- Enhancement quality of knowledge in the area.
- Employability and communication skills.

## 2.5 DETAILS OF FACULTIES

Sl. No.	Name of the Faculty	Designation	Qualification	Specialization	Experience in Years	Mobile Number
1	Dr. R.H. Pavithra	Assistant Professor & Chairman	M.A. Ph.D	Econometrics	14	9845659987
2	Dr. Ramananda .M.S	Associate Professor	M.A. Ph.D	Micro Economics	26	7899854594
3	Dr. T.P.Shashi Kumar	Assistant Professor	M.A. Ph.D	Quantitative techniques	12	9036342507
4	Dr.ShivakumaraSwamy	Assistant Professor	M.A. Ph.D	Development Economics	18	9972165817
5	Dr. N. Harisha	Assistant Professor	M.A. Ph.D	Money and Banking	09	8861467351
6	Dr. K.S.Veerendrakumara	Assistant Professor	M.A. Ph.D	Development Economics	14	9901963999
7	Dr. Banashankari.J.L	Assistant Professor	M.A. Ph.D	Moneyand Economics	08	8951217787

## 2.6 PROGRAM STRUCTURE

The following are the courses to be studied by students who are admitted to M.A Economics Program

Course Code	Semester and Course	Credits	Counselling/PCP Hours	Maximum Marks			Examination Duration
				Internal Assessment	TermEnd Examination	Total	
<b>Economics Semester - I</b>							
HC 1.1	Micro Economic Analysis-I	4	12	20	80	100	3
HC 1.2	Macro Economics-I	4	12	20	80	100	3
HC 1.3	International Trade Finance	4	12	20	80	100	3
HC 1.4	Agriculture Economics	3	09	20	80	100	3
HC 1.5	Indian Economy-I	3	09	20	80	100	3
EL 1.1	Open elective	2	06	10	40	50	1 1/2 Hours
<b>Semester – I Total</b>		<b>20</b>	<b>60</b>	<b>110</b>	<b>440</b>	<b>550</b>	
<b>Economics Semester - II</b>							
HC 2.1	Micro Economic Analysis-II	4	12	20	80	100	3
HC 2.2	Macro Economics-II	4	12	20	80	100	3
HC 2.3	Research Methodology	4	12	20	80	100	3
HC 2.4	Money and Banking	3	09	20	80	100	3
HC 2.5	Indian Economy-II	3	09	20	80	100	3
EL 2.1	Open elective	2	6	10	40	50	1 1/2 Hours
<b>Semester – II Total</b>		<b>20</b>	<b>60</b>	<b>110</b>	<b>440</b>	<b>550</b>	
<b>Economics Semester - III</b>							
HC 3.1	Economics of Development-I	4	12	20	80	100	3
HC 3.2	Public Economics-I	4	12	20	80	100	3
HC 3.3	Quantitative Techniques for Economics	4	12	20	80	100	3
SC 3.1 A / SC 3.1 B	Rural Development / Demography-I	3	09	20	80	100	3
SC 3.2 A / SC 3.2 B	Contemporary Indian Economy-I / Welfare Economics-I	3	09	20	80	100	3
SEC-T	Computer Fundamental to Economics-I	2	06	10	40	50	1 1/2 Hours
<b>Semester – III Total</b>		<b>20</b>	<b>60</b>	<b>110</b>	<b>440</b>	<b>550</b>	
<b>Economics Semester - IV</b>							
HC 4.1	Economics of Development-II	4	12	20	80	100	3
HC 4.2	Public Economics-II	4	12	20	80	100	3
HC 4.3	Statistics for Economics	4	12	20	80	100	3
SC 4.1 A / SC 4.1 B	Karnataka Economy / Demography-II	3	09	20	80	100	3
SC 4.2 A / SC 4.2 B	Contemporary Indian Economy-II / Welfare Economics-II	3	09	20	80	100	3
SEC-P	Computer Fundamental to Economics - II	2	06	10	40	50	1 1/2 Hours
<b>Semester – IV Total</b>		<b>20</b>	<b>60</b>	<b>110</b>	<b>440</b>	<b>550</b>	
<b>Semester I to IV Grand Total</b>		<b>80</b>	<b>240</b>	<b>440</b>	<b>1760</b>	<b>2200</b>	

HC – Hard-core Stream;  
 SC – Soft-core Stream;  
 EL – Inter-disciplinary Elective.  
 SEC – Skill Enhancement Course.

**Note:**

- Soft Core (SC) papers are for only 3<sup>rd</sup> and 4<sup>th</sup> semesters.
- Students who take up SC 3.1 (A) in 3<sup>rd</sup> semester has to mandatorily opt SC 4.1 (A) in 4<sup>th</sup> semester.
- Students who take up SC 3.2 (A) in 3<sup>rd</sup> semester has to mandatorily opt SC 4.2 (A) in 4<sup>th</sup> semester.
- If students take up SC 3.1 (B) in 3<sup>rd</sup> semester has to mandatorily opt SC 4.1 (B) in 4<sup>th</sup> semester.
- If students take up SC 3.2 (B) in 3<sup>rd</sup> semester has to mandatorily opt SC 4.2 (B) in 4<sup>th</sup> semester.
- Students has to make choice between SC 3.1 (A) and SC 3.1 (B) in 3<sup>rd</sup> Semester and has to choose between S.C 4.1(A) & S.C 4.1(B) in 4<sup>th</sup> semester.

Total credits for M.A Economics (40 credits from Previous and 40 credits from Final M.A in Economics (20 credits in each semester)).

University makes provision to restructure credits and evaluation system as per time to time UGC directions.

**Interdisciplinary Electives**

SL No	Department	Sub Code	I Semester	Sub Code	II Semester
1	KANNADA	ELK-01	ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಇತಿಹಾಸ	ELK-02	ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಇತಿಹಾಸ
2	ENGLISH	ELE-01	Indian Literature -I	ELE-02	Indian Literature -II
3	HINDI	ELH-01	Vyavaharik Hindi Vyakaran	ELH-02	Hindi Cinema
4	TELUGU	ELT-01	Tilak	ELT-02	Telugu Samskruthi – Samaajam
5	HISTORY	ELHS-01	Ancient World Civilisations  (Egypt, Mesopotamia, Greek,	ELHS-02	Social Reform Movement in India

			Roman, Inca, Chinese)		
6	ECONOMICS	ELEC-01	Economic Policies of India Since 1991	ELEC-02	Institutions for International Development
7	POLITICAL SCIENCE	ELP-01	Local Government in India.	ELP-02	Indian Constitution
8	PUBLIC ADMINISTRATION	ELPA-01	Indian Polity-1	ELPA-02	Indian Polity-2
9	SOCIOLOGY	ELS-01	Invitation to Sociology	ELS-02	Study of Indian Society
10	JOURNALISM AND MASS COMMUNICATION	ELJ-01	Aspects of Journalism and Mass Communication - I	ELJ-02	Aspects of Journalism and Mass Communication - II
11	ANCIENT HISTORY AND ARCHEOLOGY	ELA-01	World heritage sites of India	ELA-02	Cultural History of Hoysalas
12	EDUCATION	ELED-01	Foundations of Education	ELED-02	Higher Education
13	COMMERCE	ELC –01	Personal Financial Planning	ELC –02	Entrepreneurship Development
14	MANAGEMENT	ELM –01	Disaster Management	ELM –02	E-Commerce
15	BIOCHEMISTRY	ELMBC –01	Basics of Bioinorganic and Biophysical chemistry for Biology graduates.	ELMBC –02	Basic Bioorganic chemistry for Biology graduates.
16	BIOTECHNOLOGY	ELMBT –01	Biotechnology Principles and applications	ELMBT –02	Fundamentals of Biotechnology
17	CHEMISTRY	ELMC –01	Open Elective I	ELMC –02	Open Elective II
18	CLINICAL NUTRITION AND DIETETICS	ELMCND –01	Healthy lifestyles and nutrition	ELMCND–02	Nutraceuticals and health foods
19	COMPUTER	ELMCS –01	Mobile App	ELMCS –02	E-Commerce

	SCIENCE		Development		
20	ENVIRONMENTAL SCIENCE	ELMES –01	Basics of Environmental Science	ELMES –02	Advances in Environmental Science
21	GEOGRAPHY	ELMG –01	Introduction to Physical Geography	ELMG –02	Geography of Karnataka
22	MATHEMATICS	ELMM –01	Fundamentals of Mathematics	ELMM –02	Combinatorics and Graph Theory
23	MICROBIOLOGY	ELMMB –01	Microbial World and Microbial Diversity	ELMMB –02	Microbes in Sustainable Agriculture and Development
24	PHYSICS	ELMP –01	Mechanics	ELMP –02	Waves and Optics
25	PSYCHOLOGY	ELMPHY –01	Introduction to Psychology	ELMPHY –02	Psychology in Everyday Life
26	INFORMATION TECHNOLOGY	ELMIT –01	Green Computing	ELMIT –02	E-Commerce
27	BOTANY (NEW)	ELMBOT –01	Plant-Microbe Interactions	ELMBOT –02	Plant Diversity and Human Welfare
28	ZOOLOGY (NEW)	ELMZ –01	Parasites Vectors & communicable diseases	ELMZ–02	Essential of Reproductive Health
29	FOOD AND NUTRITION SCIENCES	ELMFNS –01	Food Psychology	ELMFNS –02	Nutritional Management in Disaster Conditions

**Note**

A. I and II Semester Open elective (Interdisciplinary Electives) syllabus are attached in Annexure – I and Annexure - II respectively.

B. The Students may contact respective department chairperson in case of any queries regarding open elective course. The contact details available in the university website.

**Skill Enhancement Courses (for the students of Economics Discipline):**

• **Semester – III:**

**SEC-T 3.1:** Computer Fundamentals to Economics -1

- **Semester – IV**  
**SEC-P 4.1: Computer Fundamentals to Economics -2**

## 2.7 EVALUATION SYSTEM

Evaluation system comprises of:

- i. Internal assessment (IA) through assignments with a weightage of 20marks.
- ii. Term-end examination with a weightage of 80marks.

### **i. Internal Assessment:**

Internal Assessment by way of assignment is an integral part of distance learning. The main purpose of assignments is to test the students' comprehension of the learning materials acquired through the studies and also to facilitate to understand performance of the student.

- Assignments are to be submitted for each semester. Student will not have any opportunity of submitting the Assignments in subsequent semesters. In case a student fails to submit the assignments, he/she will be assessed only for the theory marks of 80.
- Out station students other than Mysuru should submit their assignments to the **Regional Director, concerned Regional Centre only.**
- Students who have opted Mysuru as a centre for teaching learning, they shall submit the assignments to the address as will be indicated in the assignment circular.
- The questions for assignment will be uploaded in the University official website as per calendar of events.
- The students shall submit their assignments under the First and Second phase at a time. Detailed information and questions will be hosted in the University's website, as per calendar of events.
- The student shall submit assignments in blue books only.
- The University has the right to reject the assignments received after due date. The students are therefore, advised to submit them before the due date.
- The students should preserve the photocopies of all the assignments sent along with proof of submission of such assignment.
- There is no provision for revaluation of components associated with Internal Assessments.

### **ii. Term-end Examination**

Examination for M.A Economics Degree Programme will be held by the University at the end of every semester. No Supplementary examination for M.A Economics.

### Scheme of Examination per course / paper M.A Economics Programme

	Marks	Minimum
Internal Assessment	20	No
Term End Examination	80	32
Total	<b>100</b>	<b>40</b>
Course (Paper) exemption		40
Aggregate for pass		40%

### 3.0 STUDENT SUPPORT SERVICES

The University has created learners friendly support services to enable them to pursue students without any inconvenience. The students support service is considered to be excellent in the headquarters while proper measures have been taken up to provide such services at the Regional Centres /Learners Support Centre (LSC).

#### List of Learners Support Centres will be uploaded after the admission

KSOU functions in 3 tier system in student support services Viz.,

- i) Headquarters
- ii) Regional Centres
- iii) Learner Support Centre (Study Centre).

The **headquarters** controls all the activities of Regional Centres and study centres.

The **Regional Centres** led by the Regional Directors, engage in admission process, issue of study material, besides the management of counselling /PCP and also continuous assessment. The regional centres update all the information to the students from time to time, as and when university initiates. Candidates can select the convenient Regional Centres. There are 20 Regional centres located across Karnataka.

**Learners support centres** are the reputed and established colleges located at various part of Karnataka. KSOU has identified good collages at taluk levels so as to provide convenient access to students.

#### A. Library at Head Quarters, Mysuru

The Karnataka State Open University Library caters to the need of the students, research scholars, faculty members and non-teaching staff of the university since 1996. At present, the Library's collection exceeds one lakh volumes, apart from the conventional book resources; it comprises a good number of periodicals, reference books, encyclopedia, reports, theses, dissertations, audio visual materials, CD/DVDs, etc. Presently it has more than 300 National and International Journals. The Library is planning to build a digitalized institutional repository.

**a. Membership Services:**

- i. All the students of the University can become the members of the library after getting their Student Identity Card issued from the University authorities at the time of Admission.
- ii. To get membership, they have to fill Membership Application and submit it along with 2 Passport Size Photos and 1 Stamp Size Photo, Total 3 Photos.
- iii. Borrowers Tickets will be issued on payment of a Refundable Caution Deposit of Rs. 250/-
- iv. Users can Borrow One Book per Card. The issued books can be retained for a period of 60 days, and after the due date, penalty of Rs.1/- per book per day will be levied. 14
- v. The students should return the books and borrowers card 30 days before the commencement of the Annual Examinations. In case they fail to return the same, the Admission ticket for the Examination will not be issued.
- vi. As per University guidelines students have to produce their Identity Card and compulsorily surrender their Borrowers Tickets to the Library Authorities for obtaining No Due Certificate (NDC) of the Library.

**b. Library Services**

- a. Reference and Referral Service, Current Awareness Service, Users Orientation Service,
- b. Bibliographic Service, News Paper Clipping Service, Photocopy Service, etc. provided to the users.
- c. The Library has a well-equipped computer lab with internet facility to cater to the needs of the users.
- d. The library functions from 10:00 a.m. to 5:30 p.m. on all working days.
- e. During contact Programme and university examinations, the Library will be kept open from 8:00 a.m. to 8:00 p.m. and on Government Holiday's library functions from 10:00 a.m. to 5:30 p.m.
- f. The housekeeping operations and catalogue is computerized using New Gen Lib integrated library management software.
- g. Web based Online Public Access Catalogue is provided to the users.
- h. The Library website provides access to e-journals, e-Books, old question papers, etc. And link to the Online Public Access Catalogue (OPAC) of the Library [<http://ksoumysore.edu.in/library.html>]. For any information regarding the library services please send your queries and feedback to e-mail id: ksoulibrary@gmail.com and contact Telephone No. 0821-2500873 / 251995 Ext: 525/526.

**B. Health Centre:** The University has established a Health Centre to attend to the urgent and immediate need of the students“ whenever they stay in the campus. Only OPD facility is available and regular doctor and other staff will be on duty.

**C. Hostels:** The University has provided hostel facility both for men and women separately in KSOU Mysuru campus.

Men's Hostel: KSOU Boys' Hostel is located in KSOU campus. It consists of 33 rooms. Each room could accommodate 5 students. Thus, this facility will be available to 165 students at a time. The students who wish to avail this facility shall pay 70/- per day.

**D. Women's Hostel:** KSOU cottages, located in the University campus, reserved to the girls' students. Each cottage can house 12 students. Totally University is having 09 cottages. Thus, 108 students can stay in these cottages at a time. The student who is willing to avail this benefit, shall pay Rs.70/- per day. The University is extending this facility within its limits. The accommodation will be provided depending on the availability by following the policy of 'First Come-First Serve'. The students of the hostel/ cottages shall maintain decency and decorum in the campus, no damage to the properties of the University shall be caused. Any violation will attract disciplinary action and penalty. Those who do not get the accommodation shall make their own arrangements. To avail Hostel / cottage facility and payment of tariff, contact the Office of the University Guest House during working hours. For details contact-9880072854.

- a) Well maintained cafeteria
- b) State Bank of India with its ATM facility
- c) Post Office
- d) Wi-fi Facility
- e) Well maintained playground
- f) Pure drinking water facility

**E. Special Concession for Women Students:**

Women Candidates coming under the category of Below Poverty Line (BPL), seeking admission to UG/PG will be given 15 % concession in the Tuition Fee. The applicant should submit the BPL card issued by the competent authority at the time of admission. Such candidates are required to enclose a copy of the BPL Card containing the photo and the name self-attested, along with the application and original documents.

**F. Mukta Sanjeevini Scholarship:** The Karnataka State Open University has established Mukta Sanjeevini Scholarship Fund to encourage poor students to pursue the studies. This scholarship is available to students of economically weaker section of B.A/B.Com., Programs in KSOU.

**Conditions:**

- a) Annual income of students/ father/ mother/ guardian/ husband should not exceed Rupees One Lakh.
- b) Income/Caste certificate issued by concerned Tahasildar shall be submitted.
- c) Scholarship is available to II & III B.A./B.Com, students who have successfully completed their Previous Year examination with 50% marks in the first attempt.
- d) Students should be below the age of 30 years.

- e) Those who apply for this scholarship should not have applied for any scholarship anywhere else.
- f) Students will be selected for scholarship based on their merit.
- g) Students should submit prescribed filled in application form along with relevant documents to the Deputy Registrar (Admissions), Karnataka State Open University, Mukthagangothri, Mysuru -570 006 within the stipulated time,

**G. Competitive Examination Training Centre:** The KSOU competitive examination training Centre offers training and guidance to various competitive examinations. For details contact No.0821-2515944.

**H. Placement cell:**

The university has a placement cell which provides placement assistance. Placement fairs are conducted by the University to provide placement assistance to students. The cell is having continuous liaison with different industry/companies. Placements are being provided to meritorious candidates.

Placement cell was started in July 2019 with the objective of providing jobs for meritorious candidates of KSOU exclusively. In later days the placement cell retained same objectives but the 16 scope was extended all aspirants of Karnataka with the above objective 4 job fairs including one mega job fair is arranged through which job were provide to 4000 students.

University has signed MOU with 2 companies for placements. Presently negotiations are going with Board of Apprentiship training Department of Employment and Training, Government of Karnataka. Around 50 students have been selected for apprentice with stipend of around 10,000 per month for 2 years. State level apprenticeship fair also arranged in collaboration of Government of Karnataka. The Placement cell planning to provide apprenticeship training with stipend of minimum 10,000/- per month for all Under Graduate and Post Graduate on SSLC based students. For more details contact placement cell: 9964697521.

**I. KSOU APP**

Karnataka State Open University has developed an App which can be downloaded from the Google Play store. The App provides all the relevant information such as Courses, Admissions, Classes, and Examinations. Soft copy of the Study material can also be downloaded from the App along with previous question papers and assignments.

**J. KSOU Connect:** KSOU connect is a Web Based interactive platform developed by the University. It is used to conduct online classes, Counselling session and Special lectures. Students will get a link which enables them to join the sessions.

**K. Video Lectures:** The Department of Studies and Research in Economics has developed few video lectures which would be uploaded in the YouTube Channel.

**L. KSOU Radio:** KSOU has setup Radio station to provide radio programmes for the benefit of the students. Audio tapes related to various programmes shall be broadcasted at scheduled time.

**M. CMKKY:** KSOU is a training partner to Chief Ministers Koushalya Karnataka Yojane (CMKKY). KSOU imparts training to all its Final year / Semester students who have enrolled for various classes. For more details students can contact Dr. Sumati Ramakrishna Gowda Director CMKKY.

#### **4.0 INSTRUCTIONS TO CANDIDATES RELATING TO EXAMINATION**

- **Semester Examination:** the Examination for M.A.Degree Programmes will be conducted by the University at the end of each academic Semester. No supplementary examination for M.A.
- **Period for Completion of the Programme:** The students shall complete the programme in a period of N+2 years.
- **Procedure of Examination:** Candidate shall register for all subjects (whole examination) when he/she appears for the examination for the first time (during the year of admission).
- **Examination Centres:** Depending upon the number of students enrolled, the University will identify the Examination Centres. In addition to these Examination Centres, the University conducts examination in other institutions which will also be notified in the examination circular. If any changes are made regarding examination centres, the same will be updated in the KSOU official Website: [www.ksoumysore.karnataka.gov.in](http://www.ksoumysore.karnataka.gov.in). Supplementary examinations will have lesser number of examination centres depending on the strength of the students.
- **Course Exemption:** Course exemption is granted to all under graduate and Post graduate courses as per the ordinance of the University.
- **Declaration of Results for Undergraduate Programmes:** The candidates should score minimum 32 Marks in theory and aggregate of 35 percent including IA Marks in all courses at the Term end examination. Those who score less than 35 per cent will be considered as failed in the examination, therefore such candidates have to reappear for the respective courses in the examination.
- **Declaration of Results for Postgraduate Programmes:** The candidates should score minimum 32 Marks in theory and aggregate of 40 percent including IA Marks in all courses at the Term end examination. Those who score less than 40 per cent will be

considered as failed in the examination, therefore such candidates have to reappear for the courses in the examination.

- **Marks Card:** The University shall issue Aadhaar based digital Marks Card and Convocation Certificate through Online, such copies will also be available in National Academic Depository (NAD).
- **Grace Policy:** The grace marks permissible shall be 1% of total maximum marks of all the papers or component or group or for the whole examination of all under graduate courses.

## **5.0 DETAILED SYLLABUS OF MASTER OF ARTS IN ECONOMICS (M.A ECONOMICS) UNDER CHOICE BASED CREDIT SYSTEM**

### **Karnataka State Open University, Master of Arts in Economics, Semester – I**

#### **Course – HC1.1: MICRO ECONOMIC ANALYSIS - I**

- **Objective:** To equip students with the fundamentals and application of economic theory and practice
- **Pedagogy:** A combination of Lectures, Counselling, Assignments, etc.
- Credits: 4
- Examination Duration: 3 hours and Maximum Marks: 100

#### **Course Inputs**

#### **BLOCK – I: Fundamentals to Micro Economics**

##### **UNIT : 1 Introduction to Micro Economic Analysis**

Origin – Nature – Scope – Importance – Limitations of Micro Economics – Macro Economics.

##### **UNIT : 2 Basic Problems of Economy**

Production Possibility curve - What to produce – How to produce – Is there any economic growth.

##### **UNIT : 3 Method of Economic Analysis**

Introduction – Types: Statistic – Comparative - Dynamics

##### **UNIT : 4 Tools in Economic Analysis**

Mathematical Analysis – Statistical Analysis – Methods : Inductive and Deductive Methods.

#### **BLOCK : II Demand and Utility Analysis**

##### **UNIT : 5 Equilibrium**

Meaning – Types: Partial – General Equilibrium – Merits and Demerits

##### **UNIT : 6 Demand Analysis**

Concept – Law of Demand – Determinants – Exception to Law of Demand – Increase and decrease in Demand – Extension and contraction of demand.

**UNIT: 7      Elasticity of Demand**

Concept – Types – Determinants – Measurement of Elasticity of Demand

**UNIT : 8      Cardinal Approach to Utility Analysis**

Concept of Utility – Types – Features of Utility – Law of Diminishing Marginal Utility.

**BLOCK : III      Consumer's Behavior and Equilibrium**

**UNIT : 9      Consumer Behaviour**

Law of Equi marginal utility – Consumer's Surplus..

**UNIT : 10      Ordinal Approach**

Indifference Curve – Properties – Consumer's Equilibrium through Indifference Curve Effects of Indifference Curve.

**UNIT : 11      Revealed Preference Theory**

Strong order – Weak order preference – Assumptions – Choice – Criticisms.

**UNIT : 12      Neumann – Morgenstern theory**

Neumann – Morgenstern Theory – Revision of theory by Hicks – Characteristics of Good Approach.

**BLOCK : IV      Production and Cost Analysis**

**UNIT : 13      Law of Supply**

Law of Supply – Determinations – Exceptions to the Law of Supply – Elasticity of Supply.

**UNIT : 14      Cost Analysis**

Meaning – types – Short run – Long run – Total Cost – Average Cost – Marginal Cost.

**UNIT : 15      Production Function**

Production Function – ISO Quants – Properties – Returns to Scale – Law of Variable Proportions.

**UNIT : 16      Least Cost Combination**

Least cost combination of inputs - Returns to economies of Scale – Cob Douglas Production Function.

**References:**

1. Koutsoyiannis A (1982): Modern Micro Economics, McMillan.
2. Ahuja, H. L. (2010): Advanced Economic Theory, S. Chand & Co., New Delhi
3. Sen, Anindya (1999): Microeconomic Theory and Applications, Oxford University, Press, New Delhi.
4. Chauhan. S.P.S (2009) Microeconomics: Theory and Applications, PHI Learning Pvt. Ltd., New Delhi – 110001.
5. Dwivedi (2008), Microeconomics: Theory and Applications (Second Edition), Dorling Kindersley (India) Pvt. Ltd.
6. Baumol W.J. (1982), Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.

7. Hirshleifer J.A Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi.
8. Kreps David. M. (1990), A Course in Microeconomic Theory, Princeton University Press, Princeton
9. Lancaster K. (1969): Consumer Demand- A New Approach, Rand McNally London.
10. Layard P.R.G and A.W. Walters (1978), Micro Economic Theory, McGraw Hill, New York.

## **Karnataka State Open University, Master of Arts in Economics, Semester – I**

### **Course – HC1.2: MACRO ECONOMICS - I**

- **Objective:** To acquaint the students with the Knowledge of Macro Economics Variables.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 4.
- Examination Duration: 3 hours and Maximum Marks: 100

#### **Course Inputs**

#### **BLOCK – I: Introduction to Macro Economics**

- UNIT : 1 Nature and Significance of Macro Economics**  
Nature and Significance of Macro Economics – Concept - Nature and Significance of closed and open Economy.
- UNIT : 2 National Income and Its Accounting**  
Concepts – Method - Difficulties in the calculating of National income.
- UNIT : 3 Classical Theory of Employment**  
Features – J.B. Says Law of Market – Wage – Price Flexibility – Employment Determination.
- UNIT : 4 Keynesian Employment Theory**  
Aggregate Demand Function – Aggregate Supply Function – Equilibrium Level of output and Employment – Effective Demand.

#### **BLOCK : II Keynesian Approach Towards Consumption and Investment**

- UNIT : 5 Consumption Function**  
Meaning – Psychological Law of Consumption – Average Propensity to consume – Marginal Propensity to Consume – Marginal Propensity to Consume – factors determining consumption function.
- UNIT : 6 Investment Function**  
Interest rate – Marginal Efficiency of capital – Factors determining Investment Function – Liquidity theory of Interest.
- UNIT: 7 Multiplier and Accelerator**  
Concept – Features – Significance – Multiplier – Trends in Income – Concept and Significance of Accelerator - Interaction between multiplier and accelerator.

**UNIT : 8      Supply of Money**

Meaning – Components of Money Supply - Approaches to measuring money supply – velocity of Circulation of Money – Factors Determining Supply of Money – Role of Supply of Money in economic development.

**BLOCK : III      Theories of Demand for Money**

**UNIT : 9      Demand for Money**

Meaning – Objectives – Classical Approaches for Demand for money - Fisher's Equation – Cambridge Theory – Difference between Fishers and Cambridge Approach – Superiority and criticisms of Cambridge approach – criticism of Fishers Approach.

**UNIT : 10      Keynes Theory of Demand for Money**

Keynes Theory of demand for Money – Three motivations of demand for money – Saving investment Theory of Money – Superiority of Saving Investment theory – Liquidity Trap.

**UNIT : 11      Post Keynesian Theories of Demand for Money**

Introduction – Baumol's Inventory Approach – Superiority of Baumol's Inventory Approach - Tobin Porfolio Approach – Superiority and criticism of Tobin Approach – Real Balance effect.

**UNIT : 12      Modern Theory of Money**

Milton Friedman's Theory – Nature of Money – demand for Money function – Importance of Friedman's Theory – Criticisms – Friedman and Keynes: A Comparison.

**BLOCK : IV      Keynesian, Neo – Classical and Modern Theories**

**UNIT : 13      Control of Money Supply**

Quantitative and Qualitative methods – Problems in Controlling Money Supply.

**UNIT : 14      Neo-Classical Theory of Investment**

Investment and forces determining the rate of Interest – demand for Loanable Funds – Supply of Loanable funds – Determination of the Rate of Interest – Criticisms – Improvement over the Classical Theory.

**UNIT : 15      Keynesian Theory of Investment**

Keynesian Liquidity Preference Theory of Interest Motivation factors – determination of the Rate of Interest – Liquidity trap - criticisms.

**UNIT : 16      Modern Theory of Interest**

Hick Hansen Synthesis Deviation of IS curve – Derivation of LM Curve – Determination of Interest.

**References:**

1. Mankiw, N.G. (1994), Macroeconomics, (2nd Edition.), Worth Publisher, New York
2. Ackley, G., (1978), Macroeconomic: Theory and Policy, Macmillan, New York
3. Shapiro, E., (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
4. Branson, W.A., (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York,

5. Dudley, Dillard (2005), Economics of John Maynard Keynes- The Theory of a Monetary Economy, Kessinger Publishing, Kila MT 59920, USA
6. Rana and Verma (1981), Macroeconomic Analysis, Vishal Publishing House, New Delhi
7. Dornbusch, R. and F. Stanley (1997), Macroeconomics, McGraw Hill, Inc., New York,
8. Dwivedi, D.N. (2001), Macroeconomics: Theory and Policy, Tata McGraw Hill Publishing Company Limited, New Delhi,
9. Heijdra, B.J and V.P Frederick (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi,
10. Jha, R., (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.

## **Karnataka State Open University, Master of Arts in Economics, Semester – I**

### **Course – HC1.3: INTERNATIONAL TRADE AND FINANCE**

- **Objective:** To facilitate understanding of the conceptual framework of International and Internal trade & other Financial institutions.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 4
- Examination Duration: 3 hours and Maximum Marks: 100

#### **Course Inputs**

#### **BLOCK – I: Fundamentals to International Economics**

##### **UNIT : 1 Introduction to International Economics**

Meaning – Scope – Importance – Difference between Internal and International Trade

##### **UNIT : 2 Classical Theory of International Trade**

Absolute Advantage – Comparative Cost Theory of International Trade.

##### **UNIT : 3 Modern Theory of International Trade**

Assumptions – Factor Abundance – Factor Price – Factor Intensity Reversal – Leontief Method of Testing – Leontief Paradox.

##### **UNIT : 4 Factor Price Equalization of Samuelson**

Meaning of Factor Price Equalization Hypothesis – Assumptions – Criticism.

#### **BLOCK : II International Trade : New Theories, Gains from Trade and Terms of Trade**

##### **UNIT : 5 New Theories of International Trade**

Klavis Model – The availability approach – Linder's Representative Demand Hypothesis – Overlapping Demand – Rybczynski Theory – Assumptions - Policy implications of immiseralising Growth – Causes of Emergence and measurement of intra – industry trade and its impact on developing countries.

##### **UNIT : 6 Gains from Trade**

Meaning – Types – Factor determining gains from Trade – Difficulties in getting gains from International trade – Specialization and Gains from Trade – Conditions

for Gains from Trade – Gains from Trade in case of Big and Small countries – Disadvantages of gains from trade.

**UNIT : 7 Terms of Trade**

Meaning – Types – Factors affecting terms of trade – Different Concepts of Terms of Trade.

**UNIT : 8 International Trade Policies**

Free Trade Policy – Merits and Demerits - Protectionist Trade Policy – Agreement in favor of protectionist trade policy.

**BLOCK : III Trade Barriers, BOP and Foreign Exchange Rate**

**UNIT : 9 Trade Restrictions**

Tariffs – Types – Effects - Partial Equilibrium – Analysis of a tariff – General equilibrium – Analysis of a tariff – optimum tariff and non welfare.

**UNIT : 10 Non Tariff Trade Barrier**

Quotas – Types – Effects – Voluntary export Restraints – other distortions of trade – Subsidies – Dumping – Government procurement Policies - Social Regulations.

**UNIT : 11 Balance of Payment**

Meaning – Concepts – Components – Types – causes for disequilibrium in balance of payment.

**UNIT : 12 Foreign Exchange Market and Rate**

Meaning – Types of Foreign Exchange Market – Types of Foreign exchange Rate – Determinants of Foreign Exchange Rate.

**BLOCK : IV International Financial Institutions and Regional Integration**

**UNIT : 13 Theories of Foreign Exchange Rate**

Mint Parity – Purchasing Power Parity – Balance of Payment Theory.

**UNIT : 14 International Financial Institutions**

Introduction – World Bank – Objectives – functions – World Bank and Developing countries – World Bank and India – International Money Fund – Objectives - Special Drawing Rights – IMF and developing countries.

**UNIT : 15 World Trade Organization**

Objectives – Functions – TRIPS – TRIMS and other agreement – Related to Trade, Environment, Labour etc

**UNIT : 16 Regional Integration**

European Economic Community – SAARC – ASEAN – IDA - BRICS

**References:**

1. Apte A.N. (2011) International Financial Management, Tata McGraw Hill Pub., Co. Ltd., New Delhi.
2. Bhambari C.P, (1980) The World Bank and India, Vikas Publishing House, New Delhi.
3. International Development Association, Annual Reports.
4. International Finance Corporation, Annual Reports.
5. International Monetary Fund, Annual Reports.

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7. World Bank, World Bank in India, Washington, D.C. USA
8. World Bank, World Development Reports, and Annual Reports.
9. Palle Krishna Rao, (2005) WTO, Text and Cases, PSG Excel Series, New Delhi

## **Karnataka State Open University, Master of Arts in Economics, Semester – I**

### **Course – HC1.4: AGRICULTURAL ECONOMICS**

- **Objective:** To make the students to acquaint with the advanced concepts of Agricultural Economics which assist them to develop proficiency in the field of Agricultural science.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 3
- Examination Duration: 3 hours and Maximum Marks: 100

#### **Course Inputs**

#### **BLOCK – I: Introduction to Agricultural Development**

##### **UNIT : 1 Introduction to Agriculture**

Introduction – meaning – Importance – Contribution of Agriculture for National income – dependency on Agriculture for Livelihood.

##### **UNIT : 2 Agricultural Labour:**

Meaning – labour Problems – Bhoodan Movement – Unemployment and Under Employment – problems of Socio Economic and Cultural Background – Employment generation and Absorption.

##### **UNIT : 3 Agriculture and Economic Development**

Concept of Development – Characteristics of Indian economy – Causes of Agricultural Backwardness – Present Position of Agriculture – Causes of Low Productivity in Agriculture – Agricultural Marketing – problems of Agricultural Marketing.

##### **UNIT : 4 Strategies of Growth and Development in Planning**

Agricultural policies and Programmes in India – New Agricultural Strategy and Green Revolution and its impact on the Economy – Agrarian Structure and the growth of Capitalism in Indian Agriculture.

#### **BLOCK : II Agricultural Finance and Land Reforms**

##### **UNIT : 5 Institutions of Agricultural Finance**

Institutions and Non institutional Financial Sources to rural Agriculture in India.

##### **UNIT : 6 Land Tenure**

During Hindu, Muslim, British Period and on the eve of independence – Zamindari – Mahalwari – Ryotwari Systems.

##### **UNIT: 7 Land Reforms:**

Importance – evolution of Land Reforms Policy – Objectives – Land Reform Measures – difficulties in the Abolition of Intermediaries – ceiling of Land Holidays – recommendations of Expert Committees.

**UNIT : 8      Problems of Farmers**

Problems of Marginal and Small Farmers – Tenancy Reforms – Land distribution – Tenancy and Crop sharing – cooperative farming – Landless Rural people – Gramdhan Movement – Achievements of Land reforms – Impact of Land Reforms.

**BLOCK : III      Agricultural Development and Environment**

**UNIT : 9      Agricultural Inputs**

Seeds – Fertilizers – Subsidy – Pesticides – Irrigation.

**UNIT : 10      Mechanization of Agriculture:**

Types and Magnitude – Rural Electrification.

**UNIT : 11      Environment and Soil Erosion**

Degradation of and Deforestation – Ecological Imbalance in India – Soil Erosion – Extent – Soil Conservation – Dry Farming – Land Reclamation and Development – pricing of inputs – Subsidies.

**UNIT : 12      Agricultural Production Under Five Year Plans**

Recent Trends in Agricultural Growth in India – cropping Pattern Shifts – Impact of Agriculture on industry – Diversification of Agriculture – Inter Regional Variations in growth and Output and Productivity.

**References:**

1. Bardhan. P (1984), Land Labour and Rural Poverty, Oxford University Press, New Delhi.
2. Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
3. Choudhary P. (1972), Reading in Indian Agriculture Development, George Allen and Unwin, Landon.
4. Eicher, C and L. Witt (Eds) (1970): Agriculture in Economic Development, Vora & Co. Bombay.
5. Ghatak, S. and K. Ingersent (1984): Agriculture and Economic Development, Wheat sheaf, London.
6. Hanumantha Rao C.H. (2005) Agriculture, Food Security, Poverty Environment-Essays on Post Reform India, OUP
7. Mellor J.W and John. W (1966), The Economics of Agricultural Development. Cornell University Press, Ithaca, New York
8. Schultz TW (1968), Economic Growth and Agriculture, McGraw Hill, New York.

**Karnataka State Open University, Master of Arts in Economics, Semester – I**

**Course – HC1.5: INDIAN ECONOMY - I**

- **Objective:** To enable the students to understand the structure of Indian Economy and to provide them complete knowledge of the existing contemporary Indian economic scenario.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 3.

- Examination Duration: 3 hours and Maximum Marks: 100

### **Course Inputs**

#### **BLOCK – I: An Introduction to Indian Economy**

##### **UNIT : 1 Economic Development and its Determinants**

Concepts – Factors that determine economic Development: Natural resources – Economic factors and Noneconomic factors.

##### **UNIT : 2 Approaches to Economic Development and its Measurement in India**

Income indices: GDP – Non Income Indices: PQLI – Basic Needs Approach – FDI – GDI – Human Happiness Index – Human Poverty Index – Corruption Index.

##### **UNIT : 3 Features of Indian Economy**

Economic Features – Social Features – Political feature – India as a Dualistic Economy – India as a mixed Economy – India as a Planned Economy.

##### **UNIT : 4 Natural Resources in India**

Meaning – types – Importance Different Natural Resources – Ecological Balance – Environmental pollution.

#### **BLOCK : II Population and Man Power Planning in India**

##### **UNIT : 5 Population in India**

Size – Growth – Structure – Causes for Rapid Growth of Population.

##### **UNIT : 6 Problems of Population Explosion**

Problems – Population Policy in India – Recent Population Policy in India.

##### **UNIT: 7 Human Resource Development in India**

Concept – Significance – Social Infrastructure: Health and Education.

##### **UNIT : 8 Man Power Planning**

Concept – Strategies and significance of Man power Planning.

#### **BLOCK : III Infrastructural Development and Planning in India**

##### **UNIT : 9 Infrastructure in India**

Different Types of Infrastructure – Role of Infrastructure in Economic Development.

##### **UNIT : 10 Planning Strategy in India**

Concept – Features of Planning in India – Objectives of Planning in India.

##### **UNIT : 11 India's five Year Plan**

India's five year plan since 1951 to 12<sup>th</sup> Five Year Plan – Achievement and Failures of Planning – NITI Ayoga.

##### **UNIT : 12 Decentralized Planning**

Features – Panchayat Raj System in India – Non Governmental Organisations Pressure Groups.

#### **References:**

1. Acharya Shankar, (2003) India's Economy: Some Issues and Answers, Academic Foundation, New Delhi.

2. Byres J Terence (Ed.,) (1999) The Indian Economy, Major Debates since Independence, OUP, New Delhi.
3. Datt Ruddar, (2002) Economic Reforms in India - A Critique, S.Chand and Co, New Delhi.
4. Kapila Uma (Ed) (2015) Indian Economy since Independence, Academic Foundations, New Delhi.
5. Kapila Uma, (2005) Understanding the Problem of Indian Economy, Academic Foundation, New Delhi.
6. Misra S.K. & V.K. Puri, (2011) Indian Economy-Its Development Experience, Himalaya Pub., House, Mumbai.
7. NCAER, Economic and Policy Reforms in India, NCAER, New Delhi.
8. Rangarajan C, (1998) Indian Economy- Essays on Money and Finance, UBSPD, New Delhi.
9. Sachs D.Jeffrey, A.Varshney & N Bajpai (Ed)(1999) India in the Era of Economic Reforms,OUP, New Delhi.
10. Vaidyanathan A, India's Economic Reforms and Development, OUP, New Delhi.

## **Karnataka State Open University, Master of Arts in Economics, Semester – II**

### **Course – HC2.1: MICRO ECONOMIC ANALYSIS - II**

- **Objectives:** To enable the students aware of the concepts, techniques and Principles of Advanced Micro Economics.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- **Credits:** 4
- **Examination Duration:** 3 hours and Maximum Marks:100

#### **Course Inputs**

#### **Block – I                      Analysis of Market Structure**

##### **Unit – 1                      Marginal Analysis**

Concept – Importance of Marginal Analysis – Price and Output determination.

##### **Unit – 2                      Perfect Competition**

Features – Price and Output determination in short run – Price and Output Determination in Long Run.

##### **Unit – 3                      Monopoly Market**

Features – Price and output determination in short run – Price and output determination in long run – Price discrimination.

##### **Unit – 4                      Monopolistic Market**

Meaning – Features – Product differentiation – Chamberlin's Model – Short run equilibrium – Long run equilibrium.

**Block – II      Imperfect Competitive Market: Oligopoly and Monopsony**

**Unit – 5      Oligopoly**

Meaning – Features – Non Collusive Oligopoly – Cournot Price Output determination.

**Unit – 6      Recent Models of Oligopoly**

Brutrand Model – Sweezy or Kinked Demand Curve – Chamberlin's Oligopoly Model – Stackelberg solution.

**Unit – 7      Collusive Oligopoly**

Cartels – Large Firms – Price Leadership.

**Unit – 8      Monopsony and Bilateral Monopoly**

Meaning of Monopsony – Meaning of Duopoly - Price and output Determination Under Duopoly.

**Block – III      Theories of the Firm**

**Unit – 9      Baumol's Theory of Sales Maximisation**

Baumol's Theory of Sales Maximisation – Baumol's Static Model – Baumol's Dynamic Model – Critics.

**Unit – 10      Alternative Theories of the Firm**

Marris model – Equilibrium of the Model – Criticism's – Williamson's Model – Full Cost Pricing Principle.

**Unit – 11      Pricing Theory and Its Recent Development**

Bain's Limit Model – Barriers to New Competition – Barriers to Entry – Assumptions of Bain's Model – Bain's model – Criticisms – Recent Developments in Limit Pricing Theory – Sylos – Labini Model – Price Determination – Recent Development.

**Unit – 12      Behavioural Theory of the Firm**

Simon's Theory of satisfying behaviour – Criticism – Cyert – March Model of behaviourism – Critique of behaviourism – Theory of Firm.

**Block – IV      Theories of the Firm, Distribution, Factor Pricing**

**Unit – 13      Game Theoretical Models of the Firm**

Introduction – Game Theory – Two Person Zero Sum Game.

**Unit – 14      Theory of Distribution**

Neo Classical Approach – Marginal Productivity Theory – Market Equilibrium – Product Exhaustion Theorem – Elasticity of Technical Substitution – Technical Progress and factor shares.

**Unit – 15      Factor Pricing Imperfectly Competitive Markets**

Introduction – Monopoly in the Product Market – Factor Pricing Under Monopolistic Market – Bilateral Monopoly.

**Unit – 16      Theories of Factor Pricing**

Theories of Rent – Determination of Interest – Theories of Profit.

**References:**

1. Koutsoyiannis A (1982): Modern Micro Economics, McMillan.
2. Ahuja, H. L. (2019): Advanced Economic Theory, S. Chand & Co., New Delhi
3. Sen, Anindya (1999): Microeconomic Theory and Applications, Oxford University, Press, New Delhi.
4. Chauhan. S.P.S (2009) Microeconomics: Theory and Applications, PHI Learning Pvt. Ltd., New Delhi – 110001.
5. Dwivedi (2008), Microeconomics: Theory and Applications (Second Edition), Dorling Kindersley (India) Pvt. Ltd.
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7. Hirshleifer J.A Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi.
8. Kreps David. M. (1990), A Course in Microeconomic Theory, Princeton University Press, Princeton
9. Lancaster K. (1969): Consumer Demand- A New Approach, Rand McNally London.
10. Layard P.R.G and A.W. Walters (1978), Micro Economic Theory, McGraw Hill, New York

**Karnataka State Open University, Master of Arts in Economics, Semester – II**

**Course – HC2.2: MACRO ECONOMICS – II**

- **Objectives:** To enable the students aware of the concepts, techniques and Applications of Macro Economics variables.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 4
- Examination Duration: 3 hours and Maximum Marks:100

**Course Inputs**

**Block – I      Business Cycle and Theories of Business Cycle**

**Unit – 1      Business Cycle – Phases and Features**

Concept – Types – Phases of business Cycle – Depression – Recovery – Boom – Recession – Features of Business Cycle.

**Unit – 2 Theories of Business Cycle**

Schumpeter's Theory of Business Cycle – Invention and Innovation – Schumpeterian model – Critical Evaluation – Kaldor theory of business cycle – Kaldor model – Business Cycle and Linear Saving and Investment Functions – Evaluation of model.

**Unit – 3 Hicksian Theory of Business Cycle**

Ingredients of Hicksian theory – Assumption – Special Features – Hicksian Model – Upswing – Downswing of the Business Cycle – Critical Evaluation.

**Unit – 4 Monetary Theories of Business Cycle – Hayak and Hawtrey's Theories.**

Introduction – Monetary over invest theory of Hayak – Basis of over investment theory – Theory of operation – The Course of Recession – Course of Depression – Recovery – Critical evaluation – Hawtrey's Argument – Upswing and Downswing of the Cycle – Critical Evaluation.

**Block – II Inflationary and Deflationary and Theories**

**Unit – 5 Inflation and Deflation**

Concept of Inflation – Types - Causes – Effects of Inflation – Concept of Deflation – Deflationary Gap – Effects of deflation.

**Unit – 6 Theories of Inflation**

Introduction – Demand pull Inflation theories – Inflationary gap analysis – Convergent and divergent inflationary process – Factor affecting the real demand inflation – Pure excess demand analysis – Bent Hansen's Theory – Cost-Push inflation Theories – Demand pull Inflation Theories – Mixed Demand Inflation Sectoral Demand Shift Theory Criticism.

**Unit – 7 The Phillip's Curve**

Introduction – Inflation – Unemployment trade off - Rational under lying Phillips curve – Factors responsible for inverse Relationship – Collaps of Phillip's Curve – Causes for Shifting Phillip's curve – The Theory of lowest sustainable unemployment rate - Modified Phillip's Curve.

**Unit – 8 Role of Government Controlling Variations in Business Cycles**

Introduction – Nature – Objective – Monetary Policy – Quantitative instruments – Qualitative instruments – Effectiveness – Time – Lags Policy – Fiscal Policy –

Tools – effectiveness – Fiscal policy – Tools – Effectiveness – Fiscal Policy and Economic Growth.

**Block – III Macro Economics and Open Economy**

**Unit – 9 Macro Economics in an Open Economy – Mundall Fleming Model**

Macro economics in an Open Economy and Mundall– Fleming Model – Introduction – Mundell – Fleming model – Components of the model - Open Economy under the floating exchange rate – Open Economy under the fixed exchange rate.

**Unit – 10 Exchange Rates**

Introduction – Major exchange rate systems – Fixed exchange rate system – Flexible exchange rate system – Meaning, Equilibrium – The four pronged Mechanism – Towards a common currency.

**Unit – 11 Monetary Approach to the Balance of Payment**

The monetary approach – Monetary approach under fixed exchange rates – monetary approach under flexible exchange rates.

**Unit – 12 The New Classical Approach**

Emergence of the New Classical Approach - Rational Expectation – Market Clearing Approach – Lucas Supply Curve – Evaluation – Illusory phillip’s Curve.

**Block – IV New Classical Approach and Recent Developments**

**Unit – 13 Policy Implications of the New Classical Approach**

Introduction – Policy implications of the new classical approach – Ineffectiveness – Desirability affixed Rules – Lucas Critique – State of Debate – New Synthesis.

**Unit – 14 Market V/S State**

Parallel Economy – Black Money – Corruption – Scams – Redefining the role of state and the market.

**Unit – 15 Millennium Development Goals**

The Millennium Development Goals – Concept – Goals – Priority Challenges in meeting the goals – Hunger – Education – Health – Water Supply and Sanitation.

**Unit – 16 India and its Economic Issues and Challenges**

Poverty in India – Unemployment – Causes – Trends – Population growth and opportunity and challenges – Governmental measures.

**References:**

1. Mankiw, N.G. (2019), Macroeconomics, (10<sup>th</sup> Edition.), Worth Publisher, New York
2. Ackley, G., (1978), Macroeconomic: Theory and Policy, Macmillan, New York
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4. Branson, W.A., (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York,
5. Dudley, Dillard (2005), Economics of John Maynard Keynes- The Theory of a Monetary Economy, Kessinger Publishing, Kila MT 59920, USA
6. Rana and Verma (1981), Macroeconomic Analysis, Vishal Publishing House, New Delhi
7. Dornbusch, R. and F. Stanley (1997), Macroeconomics, McGraw Hill, Inc., New York,
8. Dwivedi, D.N. (2005), Macroeconomics: Theory and Policy, Tata McGraw Hill Publishing Company Limited, New Delhi,
9. Heijdra, B.J and V.P Frederick (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi,
10. Jha, R., (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.

## **Karnataka State Open University, Master of Arts in Economics, Semester – II**

### **Course – HC2.3: RESEARCH METHODOLOGY**

- **Objective:** To facilitate understanding of the conceptual framework of Research methodology and its applications in analysing the research problem with a view to arrive at objective findings and to draw a conclusions of their study in the form of systematic reports.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 4
- Examination Duration: 3 hours and Maximum Marks: 100

#### **Course Inputs**

**Block I:        Fundamentals to Research**

**Unit - 1:        Introduction to Research**

Research– Meaning - Characteristics – Objectives - Scientific Method – Research and Theory – Theoretical Models - Theoretical Foundation.

**Unit 2:        Social Science Research**

Applicability in Social Research - Subjectivity v/s Objectivity in Social Research; Plagiarism and Ethical Issues in Research. Case Study.

**Unit 3:        Types of Research**

Classification of Research - Pure and Applied Research - Exploratory Research - Descriptive Research - Diagnostic and Evaluation Study - Action - and Experimental Research.

**Unit 4: Methods of Research**

Surveys - Field Studies - Conceptual Outlook – Meaning - Advantages and Limitations.

**Block II: Planning, Sampling Methods and Techniques of Research**

**Unit 5: Planning of Research**

The Planning Process - Selection and Formulation of a Research Problem - Hypothesis and Research Design.

**Unit 6: Sampling Method**

Introduction, Population versus Sampling - Advantages and Limitations Sample Techniques - Sample Size.

**Unit 7: Sampling Techniques-1**

Introduction – Classification - Probability Sampling – Advantages and Disadvantages-Errors in Sampling.

**Unit 8: Sampling Techniques-2**

Introduction, Classification, Non- Probability Sampling –Advantages and Disadvantages- Sample Design and Choice of Sampling Techniques.

**Block III: Review of Literature, Methods, Tools and Processing of Data**

**Unit 9: Review of Literature**

Need and Purpose for Review of Literature - Literature Search literature – Sources of Literature - Planning the Review work.

**Unit 10: Methods of Data Collection**

Meaning and Types of Data, Sources of Data, Primary and Secondary Data, Advantages/Disadvantages. Data Collection Techniques: Observation Method, Survey -Interview and Questionnaire Method, Merits and Demerits.

**Unit 11: Tools for Data Collection**

Types of Tools, Functions, Schedules and Questionnaires, Measurement Scale and Indices, Pilot Study and Pre Tests.

**Unit 12: Processing of Data**

Introduction, Coding and Classification, Tabulation, Graphical Representation-  
Graphs, Charts and Diagram.

**Block IV: Statistical Analysis, Hypothesis Testing, Report Writing and Uses of  
Computer**

**Unit 13: Statistical Analysis of Data**

Introduction, Purpose, Approaches and Types of Statistical Analysis, Measures of  
Central Tendency, Measures of Dispersion, Correlation and Regression Analysis.

**Unit 14: Hypothesis Testing**

Meaning, Approaches to Hypothesis Testing, Confidence and Test of Significance  
Approach, One sided and Two sided Hypothesis, Type-1 and Type 2 Error.

**Unit 15: Report Writing**

Meaning, Types of Reports - Steps in Report Writing, Research Report Format,  
Writing the Report. Documentation: Appendices, Footnote, Endnotes, References  
and Bibliography.

**Unit 16: The Role of Computer in Research**

Introduction, the Computer and Computer Technology, the Computer System,  
Important Characteristics, the Binary Number System, Computer Applications,  
Computers and Researchers.

**Reference:**

1. C R Kothari (2008), Research Methodology: Methods and Techniques, New Age International, Ansari Road, Darya Ganj, New Delhi-110 002, INDIA.
2. Ghosh, B.N. (1992), Scientific Methods and Social Research, Sterling Publishers Pvt., Ltd. New Delhi. Goode W. J and Hatt P. K (2014), Methods in Social Research, McGraw Hill, New York.
3. Krishnaswamy O. R. (1993), Methodology of Research in Social Sciences, Himalaya Publishing House, Mumbai
4. Sadhu A.N. and Amarjit Singh (2005), Research Methodology and Social Sciences, Himalaya Publishing, New Delhi.
5. Wilkinson, S. and Bhandarkar, P.L. (1989), Methodology and Techniques of Social Research, Himalaya, New Delhi.
6. Young, Pauline V. (1987), Scientific Social Surveys and Research, Asia Publishing House

**Karnataka State Open University, Master of Arts in Economics, Semester – II**

**Course – HC2.4: MONEY AND BANKING**

- **Objective:** To enable the students to understand and equip with the current money & banking system.
- **Pedagogy:** A combination of Lectures, Case Analysis, Group Discussion, Assignments, etc.
- Credits: 3
- Examination Duration: 3 hours and Maximum Marks: 100

### **Course Inputs**

#### **Block – I                      Introduction to Money and Banking**

##### **Unit – 1            Money Concept and Functions**

Money – Meaning and Definition – Characteristics of Good Money – Kinds – Functions of money – Role of Money in Capitalist, Socialist and Modern Economy – Limitations.

##### **Unit – 2            Banking: Concepts and Structure**

Concept of Banking – Meaning – Unit Banking – Branch Banking – Group Banking – Chain Banking - Meaning and Significance.

##### **Unit – 3            Functions of Commercial Banks**

Evolution - Functions of Commercial Banks – Primary functions – Agent Functions – Public utility services – Role of Commercial Banks in a developing economy.

##### **Unit – 4            Balance Sheet of Commercial Banks**

Balance sheet of a commercial bank – Meaning – Significance – Description – Liabilities and Assets – Investment Policy of a commercial Bank.

#### **Block – II                      Banking System and Central Bank**

##### **Unit – 5            Credit Creation and its Limitation**

Credit creation and its limitation – Meaning – Credit multiplier – Limitations of credit creation by commercial bank.

##### **Unit – 6            Non Banking Financial Intermediaries**

Meaning of Non Banking Financial Intermediaries (NBFIs) - Types of NBFIs – Role of NBFIs in Economic Growth – NBFIs and Monetary Policy – Major NBFIs in India.

##### **Unit – 7            Central Bank and its Functions**

Concept and Evolution of Central Banking – Role of Central Banking in Economic Development – Functions of Central Banks – Monopoly of Note Issue – Banks to the Government – Bankers Bank – Custodian of Foreign Exchange Reserve - Credit Controller and other Functions.

##### **Unit – 8            Quantitative and Selective Credit Control Methods**

Meaning of quantitative credit control methods – Bank Rate Policy – Open Market Operation – Variable Reserve Ratio – SLR - REPO – Reverse REPO rate – Meaning of Selective Credit Controls – Margin money Requisition – Regulation of consumer credit – Direct Action – Significance – Limitations.

**Block – III Market Structure and International Banking System**

**Unit – 9 Capital Market and Money Market**

Meaning of Money Market– Features – Structure – Importance - Meaning of Capital Market– Features – Structure – Importance – London Money Market – New York Money Market.

**Unit – 10 Bank of England and British Banking System**

Organisation of Bank of England - Power – Functions of Bank of England – Special Features of British Banking system.

**Unit – 11 Federal Reserve System and American Banking System**

Structure of Federal Reserve System – Powers – Functions – Structure and Features of American Banking System.

**Unit – 12 Commercial Banks in India and Recent Developments**

Evolution of Commercial Banks in India – Nationalisation of Commercial Banks in India – Argument for and against – Merger of Commercial Banks in India – Opportunities and Challenges

**References:**

1. Bholey L.M. (1999), Financial Institutions and Markets, Tata McGraw Hill Co Ltd, New Delhi.
2. Bholey L.M.(2000), Indian Financial Systems, Chugh Publications, Allahabad.
3. Edminister R.O (1986), Financial Institutions, Markets and Management, McGraw Hill Co Ltd, New York .
4. Goldsmith R.W. (1969), Financial Structure and Development, Yale London.
5. Glenn Hubbard R (2019) Money, Banking and the Financial System, (2<sup>nd</sup> Edition), Pearson India Publication, New Delhi.
6. Johnson H.J.(1993), Financial Institutions and Markets, McGraw Hill Co Ltd, New York.
7. Khan Y.M. (1996), Indian Financial System, Tata McGraw Hill Co Ltd, New Delhi.
8. Machiraju, M.R. (1999), Indian Financial System, Vikas Publishing House, New Delhi.
9. Prasad. K.N. (2001), Development of India's Financial System, Swarup and Sons, New Delhi.
10. Robinson, R. I and D Wrightman (1981), Financial Markets, McGraw Hill, London.
11. Smith P.F (1978), Money and Financial Intermediaries: The theory and Structure of Financial System. Practice Hall, Engle Wood – Cliff- New Jersey.

## **Karnataka State Open University, Master of Arts in Economics, Semester – II**

### **Course – HC2.5: INDIAN ECONOMY - II**

- **Objective:** To enable the students to acquire the theoretical & practical knowledge of Indian Economic Policies.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 3
- Examination Duration: 3 hours and Maximum Marks: 100

#### **Course Inputs**

##### **Block – I                      Agriculture in India**

###### **Unit – 1                      Agriculture and Economic Development in India**

Introduction – Features – Role – Cropping Pattern of Indian agriculture – Importance of Commercial crops in India.

###### **Unit – 2                      Agricultural Productivity in India**

Concept of Agricultural Productivity – Causes for low agricultural Productivity – Farm size.

###### **Unit – 3                      New Agricultural Strategies**

Technological Change – Green Revolution – White Revolution – Blue Revolution – Yellow Revolution – Black revolution.

###### **Unit – 4                      Agricultural Finance in India**

Introduction – Importance - Sources of Institutional and Non Institutional sources – Causes of Rural Indebtness – Consequences – Remedial Measures to the problem of Rural Indebtness.

##### **Block – II                      Sustainable Agriculture Development in India**

###### **Unit – 5                      Agricultural Market**

Meaning – Importance - Defects – Government Measures to Improve - Agricultural marketing – Future trading in Agricultural Product.

###### **Unit – 6                      Agricultural Pricing Policy in India**

Concept – Pricing Output – Pricing Input – Agricultural Price Policy – Minimum Support Prices.

###### **Unit – 7                      Food Security and PDS**

Food Security – Concept of Public Distribution System – Operation and Problems of PDS in India – Food Security Act.

**Unit – 8 Sustainable Agriculture Development in India**

Indian Agricultural Labourers – National Agricultural Policy– Recent Measures to improve agricultural labourers in India.

**Block – III Industrial Sector in India**

**Unit – 9 Industrial Growth in India**

Industrialisation - Concept of Industrialisation and economic development – Industries under various plans – Industrial growth in India – Trends and Pattern – Major Problems – Measures to solve the Problem.

**Unit – 10 Industrial Policy in India**

Concept of Industrial policy – Industrial Policy Resolution in 1948 – Various Industrial Acts – New Industrial Policy 1991 – New trends in Industrial Policy.

**Unit – 11 Public Sector Enterprises in India**

Concept of public enterprise – Role – Origin – Growth – Performance – problems - Remedial Measures – Public Sector under globalisation period.

**Unit – 12 Micro, Small and Medium Enterprises in India (MSME)**

Concept of MSME and its classification – Importance – Growth and Performance of MSME – Problems – Remedial Measures.

**References:**

01. Ruddar Dutta and Sundaram (2018) Indian Economy, S. Chand & Co. New Delhi.
02. Dhingra, I C (2009) Indian Economy, Sultan Chand & Co, New Delhi.
03. Jain A.K (1986), Economic Planning in India, Ashish Publishing House, New Delhi.
04. Jalan B. (1996), India's Economic Policy-Preparing for the Twenty First Century, Viking, New Delhi.
05. Jalan, B. (1992), The Indian Economy-Problems and Prospects, Viking, New Delhi.
06. Sen, R.K. and B.Catterjee (2001), Indian Economy; Agenda for 21st Century (Essays in honour of Prof P.R.Brahmananda), Deep & Deep Publications, New Delhi.
07. Ahluwalia, I.J and I.M.D. Little (eds.) (1999), India's Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
08. Bardhan, P.K. (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.
09. Bawa, R.S and P.S.Raikhy (ed) (1997), Structural Changes in Indian Economy, Guru Nanak Dev University Press, Amritsar.
10. Brahmananda, P.R. and V.R.Panchamukhi (eds) (2001), Development Experience in the Indian Economy: Inter-State Perspectives, Bookwell, Delhi

## **Karnataka State Open University, Master of Arts in Economics, Semester – III**

### **Course – HC3.1: ECONOMICS OF DEVELOPMENT-I**

- **Objective:** To facilitate understanding of the classical & modern theories of economics.
- **Pedagogy:** A combination of Lectures, Case Analysis, Group Discussion, Assignments, etc.
- Credits: 4
- Examination Duration: 3 hours and Maximum Marks: 100

#### **Course Inputs**

#### **BLOCK -I: Introduction to Economics of Development**

##### **UNIT : 1 Introduction to Economics of Development**

Economics of Development: Concepts and approaches –Economic Development-concept –Economic Development and Economic Growth Measurement of Economic Development –Prerequisite for development-Impediments to Development

##### **UNIT : 2 Economic Indicators and Non-Economic Indicator**

Introduction-Economic Indicators and Non-Economic Indicators- International Gap-Trends in International Gap-causes for the Gap-Income distribution and Economic Growth-Dimension of the problem-poverty and Inequality.

##### **UNIT – 3 Characteristics of an underdeveloped country**

Meaning – Characteristics of an underdeveloped country – Different criteria of under development.

##### **UNIT – 4: Obstacles to Economic development:**

Vicious circles of Poverty – capital formation – Socio – cultural Constraints – Agricultural constraints - Human Resource constraints – Foreign Exchange constraints.

#### **Block II : Classical theory of Economic Development**

##### **UNIT – 5 : Adam Smith and Ricardian theory:**

Introduction – Main ideas of Adam Smith and Ricardo on Economic Development – A critical Appraisal and its applicability to underdeveloped countries.

##### **UNIT – 6 : T. R. Malthus and J. S. Mill:**

Introduction – Main ideas of T. R. Malthus and Mill's on economic development – A critical Appraisal and its applicability to LDCs.

##### **UNIT – 7 : Karl Marx**

Introduction – Main elements of Marx theory of Economic development – A critical appraisal – Relevance to LDCs.

##### **UNIT – 8 : Joseph Schumpeter**

Introduction- Main elements of Schumpeter theory of Economic development – Higgin’s analysis of Schumpeter system – criticism of the theory and relevance to LDCs.

### **Block III : Approach to Development and Growth**

#### **UNIT – 9 : Rostow’s Stages of Economic Growth:**

Introduction – Rostow’s Stages of Growth-criticism – Importance and limitations of Take – off for UDCs – The Takeoff and India.

#### **UNIT – 10 : The Big Push Theory**

Introduction – Explanation – Merits of Big-Push theory – Critical Appraisal.

#### **UNIT – 11 : Critical Minimum Effort Thesis**

Introduction – Explanation of critical Minimum Theory Investment phasing- Motivation theory-critical appraisal .

#### **UNIT – 12 Lewis theory of unlimited supply of Labour**

Introduction–Lewis growth model–capital accumulation in open economy – Critical Appraisal.

### **Block IV : Domestic Measures for Economic Development**

#### **UNIT –13 Capital formation and Economic Development:**

Meaning – Importance of capital formation – Reasons for Low rate of capital formation – sources of savings and capital formation.

#### **UNIT – 14 Human capital formation and Man Power :**

Meaning- Importance – Problems of Human capital formation \_ Man Power planning in UDCs. Man Power shortage and surplus strategy for Man Power planning.

#### **UNIT –15 : Deficit financing and Economic Development:**

Meaning – Role of Deficit financing – Deficit financing and its adverse effect – safe limits of Deficit financing.

#### **UNIT – 16 : Role of State in Economic Development**

Introduction – changes in institutional frame work – Social and Economic overheads – Agricultural and Industrial Development – Monetary and Fiscal Policies – Increase in Foreign Trade.

### **References:**

1. A.N. Agarawal and Kundan Lal (2006), ‘Economics of Development and Planning’, Vikas Publishing House Pvt Ltd, Thrid edition, New Delhi.
2. Mishra and Puri (2012), ‘The Economics of Development and Planning’, Himalaya Publication,15<sup>Th</sup> Edition, New Delhi.
3. N.T. Somashekar (2007), ‘Development Economics’, New age International Publishers, second edition, New Delhi.
4. M.L. Jhingan (2009), ‘The Economics of Development and planning’ 39th Edition, Vrinda Publication (p) Ltd, Delhi.

5. Michael .P. Todaro, stephen E. Smith (2003), Economic Development; Dorling Kinders Pvt Ltd, Eight edition, New Delhi.
6. M.L. Jhingan, 2010, The Economics of Development and planning, (p) L T D, 39<sup>th</sup> edition, Vrinda publications, Delhi.
7. R.C. Agarwal, 2013-14, Economics of Development and planning, Education publisher, Agra.

## **Karnataka State Open University, Master of Arts in Economics, Semester – III**

### **Course – HC3.2: PUBLIC ECONOMICS-I**

- **Objective:** To impart students with knowledge of concepts and tools of fiscal policies.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 4
- Examination Duration: 3 hours and Maximum Marks: 100

#### **Course Inputs**

#### **BLOCK -1: DEVELOPMENTAL ROLE OF GOVERNMENT**

##### **UNIT : 1 Nature and Scope of Public Economics**

Nature - Scope-objectives-Instruments of public economics Subject matter of Public Economics-Difference between Public Economics and Public Finance.

##### **UNIT: 2 Economics Justification for Government Intervention**

Introduction-Market failure- Externality-Deceasing cost- supply of Public goods.

##### **UNIT : 3 Allocation and Distribution Functions of the Government**

Reason for government Intervention in Resource Allocation-Instruments of allocation-Allocation function-Effects of resource Allocation.

##### **UNIT: 4 Stabilization Function and Development Role of the Government-**

Reasons for Government Intervention in maintaining-Economics Stability – Objectives and Instruments of stabilization function-Effects of stabilization functions the economy.

#### **BLOCK -2: Allocation of Resources and Public Goods**

##### **UNIT : 5 Private and Public Mechanism for Allocation Resources:-**

Private and Public Mechanism for allocation Resources-Problems of allocating Resources-Preference revelation and aggregating of Preferences.

##### **UNIT: 6 Voting System Aromas Impressibility Theorem and Economic theory of Democracy:-**

Voting systems-Arrow's Impossibility theorem An economic theory of democracy.

**UNIT: 7 Politico-Economic Interaction-Rent seeking – A directly unproductive Profit seeking (DVP) Activities:-**

Politico-economic Interaction - Rent Seeking and directly unproductive profit seeking.

**UNIT:8 Provisions of Public Goods:-**

Provisions of Public goods-voluntary Exchange Model.

**BLOCK -3 Theories of Public Goods :-**

**UNIT:9 Demand Revealing Schemes for Public Goods**

Demand Revealing schemes for Public Goods (Clark Groves and Ledyard theories of Public Goods).

**UNIT:10 Musgrave Contribution to Provision of Public Goods:-**

Samuelsson's and Musgrave's contribution to Provision of Public Goods-Theory of club goods by Tiebout.

**UNIT:11 Keynesian Stabilization Policy- failure of Intertemporal markets-Liquidity Preference:-**

Keynesian stabilization Policy of failure of Intertemporal markets – Liquidity Preference.

**UNIT:12 Theory of Social Goods: Poverty Alleviation-Removing Inequalities :-**

Theory of social Goods –Poverty Alleviation –Removing Inequalities.

**BLOCK -4 Fiscal Policy and stabilization**

**UNIT: 13 Role and Importance of Fiscal Policy:-**

Meaning of fiscal policy-Traditional view-Keynes view-Modern view-Latest View-Objectives of Fiscal policy.

**UNIT:14 Functions and Instruments of Fiscal Policy:-**

Allocation of Resources- Distribution of Income and wealth- Economic stabilization –capital formation and Economic Growth-Instruments of fiscal Policy- Budget-Taxation Public Expenditure- Public debt-fiscal policy in the less developed countries.

**UNIT:15 Interdependency of Fiscal and Monetary Policies**

Meaning of complementarity-Need for complementarity-formulating a coordinated policy-link between monetary and fiscal policies-Government Budget constraint-Budgetary Deficit –concept and measurement –Implications of Budgetary Deficit – Budgetary deficit and Inflation-Budgetary deficit and distribution of Income, capital formation and economic growth-Budgetary deficit and employment-limits of deficit financing.

**UNIT:16 Fiscal Policy and Stabilization:-**

Multiplier models with Investment Fixed - Balanced Budget multiplier-multiplier models with Investment variable stabilization and policy mix- A aggregate fiscal policy instrument Need for a comprehensive and flexible policy.

**References:**

1. Om Parkash (2008) Public Economics: Theory and Practice, Vishal Publishing CO.Jalandhar – Delhi.

2. R.K. Lekhi (2012) Public Finance, Kalyani Publishers, Ludhiana
3. Tyagi B.P. (2016) Public finance, Jai Prakashnath and Company, Meerut, India.
4. Buchanan J.M. (1970) The public Finance, Richard D. Irwin, Homewood.
5. Stiglitz J.E (2005) Economics of Public Sector, Norton, Newyork.
6. Musgrave R.A. and P.A. Musgrave (1989), Public finance: Theory and Practice, Mc Graw – Hill Kogakusha, Tokyo

## **Karnataka State Open University, Master of Arts in Economics, Semester – III**

### **Course – HC3.3: QUANTITATIVE TECHNIQUES FOR ECONOMICS**

- **Objectives:** To make the students understand the fundamental aspects of quantitative techniques & methods used to measure the relationships of variables.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 4
- Examination Duration: 3 hours and Maximum Marks:100

#### **Course Inputs**

#### **Block – I Introduction to Mathematical Methods in Economic Analysis**

##### **Unit – 1 Basics of Mathematical Economics**

Basic concepts – Importance of Mathematical Methods in Economic Analysis – Relationship between Mathematical and Economic Theory – Applications of Mathematics in Economic Analysis – Its Uses and Limitations.

##### **Unit – 2 Functions and Functional Relations**

Concepts of Functions – Functional relation – Linear function – Non –linear function – Solutions of Quadratic Equations – Factorisation Method – Completing the square Method – Exponential function – Logarithmic function.

##### **Unit – 3 Application of Linear Function in Economic Analysis**

Demand and Supply function – Market equilibrium – Impact of Tax and Subsidy on market equilibrium.

##### **Unit – 4 Application of Non-Linear function in economic Analysis**

Market equilibrium – Solutions to Quadratic Equations

#### **Block – II Applications of Non-Linear equations to Economic Analysis**

##### **Unit – 5 Production transformation Curve**

Introduction – linear function – Parabolic function – Hyperbolic Function – Circle

##### **Unit – 6 Pareto's Law of income Distribution**

Introduction – Pareto’s Optimum – Exponents functions – Gini’s Co-efficient – Lorenz Curve.

**Unit – 7      The Real Number System**

Meaning – Types of Numbers System – Constant – Variable – Functions and their Graphical Presentation.

**Unit – 8      Set Theory**

Definitions – Forms of Sets – Representation of a set – Set operations – Venn Diagrams – Ordered Pairs – Cartesian Product.

**Block – III    Introduction to Application of Differential Calculus to Economics**

**Unit – 9      Application of Differential Calculus to Economics - I**

Meaning – Rules of Differentiation of Algebraic functions – Cost and Revenue functions – Elasticity of Demand.

**Unit – 10     Application of Differential Calculus to Economics -II**

Concepts of Maxima and Minima – Conditions for Maxima and Minima

**Unit – 11     Profit Maximisation**

Revenue Maximisation – Cost Minimisation – Profit Maximisation – Market equilibrium – Monopoly condition.

**Unit – 12     Integral Calculus**

Definite and Indefinite Integral calculus – Simple rules of Integrals – Cost and Revenue functions – Consumers Surplus and Producers Surplus.

**Block – IV    Matrix and Determinants**

**Unit – 13     Matrix Algebra**

Concepts of Matrix – Types of Matrix – Determinants Rules.

**Unit – 14     Cramer’s rule and its Applications**

Cramer’s Rule, Input – Output Analysis and Its Applications.

**Unit – 15     Linear Programming**

Concepts – Formation of Linear Programming Problem – Its Structure and Variables.

**Unit – 16     Economic Models**

Meaning of Economic Model – National Income Analysis – Multiplier and Accelerator interaction – Domar economic Growth Model – the Coweb Model.

**References:**

1. G.s. Monga, 2002, Mathematics and statistics for Economics, Vikas publisher, New Delhi.
2. J. Medhi, 2000, Statistical methods an introduction, New Age International (P) Limited publisher, New Delhi.
3. Sonia Taylor, 2001, business statistics, plgrave publisher, Delhi.
4. D. Bose, 2003, introduction to mathematical problems, Himalaya publisher, Bangalore.

5. Veerachamy, 2002, Quantitative Methods for economists. New Age International (P) Limited publisher, New Delhi.
6. D.R. Agarwal, 2006, Mathematics and Statistics in Economics, VRINDA publisher, Delhi
7. Alpha C. Chinag 1974, Fundamental Methods of Mathematical Economics. Mc Graw-Hill, Kogakusha Ltd, Japan

## **Karnataka State Open University, Master of Arts in Economics, Semester – III**

### **Course – SC3.1A: RURAL DEVELOPMENT**

- **Objective:** To enable the students to acquire knowledge of issues & challenges of rural economy.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 3
- Examination Duration: 3 hours and Maximum Marks: 100

#### **Course Inputs**

#### **Block – I Introduction to Rural Development**

##### **Unit – 1 Introduction to Rural Development**

Nature – Scope and Importance – Need for Rural Development – Problems of Rural Sector – Rural Development Models – Contribution of Gandhi – VKRV Rao – Approaches of rural Development – PURA model.

##### **Unit – 2 Rural Development Initiatives in India**

Firka Development Scheme of Madras (1947) – Nilokiteri Approaches in Haryana (1947) – Etawa Rural Development Pilot Project of UP(1948) – Gandhian Approach to Rural Development: Sarvodaya Movement in 1950's – Bhoodan Movement (1951) – Tagore Society for Rural Development at Kolkatta (1969).

##### **Unit – 3 Rural Demography**

Population – Density of Population – Population Growth – Fertility – Mortality and Migration – Family Welfare Programme and Population Policy for India – Issues in Rural Health – Women Status – Gender Issues and Policies for Rural Women Empowerment.

##### **Unit – 4 Rural Economic Activities in India**

Agriculture – Size of Land holdings – Land Tenure and Land Reforms – Farm technology – Special Problems of Small and Marginal Farmers – Priorities and Policies for Agriculture Development – Cottage and Village Industries – Importance – Problems and Promotion of these Industries.

**Block – II**                      **Structure and Problems of the Rural Economy of India**

**Unit – 5**                      **Structure and Problems of the Rural Economy of India**

Size – Growth and Structure of the Rural Population –Problems of Growth of Population in Rural areas - Rural Surplus Manpower – Rural Unemployment and Under Employment – Problems of Unemployment among Youths – Remedial Measures – Agricultural Labourers and their Problems – Migration of Rural Population to Urban Centres – Causes and problems – Rural Urban Economic Relations – Interdependence between Rural and Urban Economy.

**Unit – 6**                      **Agriculture Sector**

Land Utilisation Pattern – Cropping pattern and its Determinants – National Agricultural Policy – Implications of Globalisation for Indian Agriculture – Governance Reforms for better policy Implication in Agriculture – Confronting Challenges – Agrarian Crisis and Farmers Suicides – National Commission on Farmers - Dry land Farming – Impact of LPG on Agriculture and Rural Development.

**Unit – 7**                      **Rural Marketing**

Problems of Transportation – Grading – Storage and Warehousing – Marketing Information – Channels of Market Information – Market cost – Methods of Measuring Market Cost – Minimum Support Prices for Agricultural Commodities – Markets; Primary, Secondary and Tertiary markets – Regulated Markets – Co-Operative Marketing System – National Council of State Agricultural Marketing Boards – Agro Processing Enterprises.

**Unit – 8**                      **Rural Financial Sector**

Sources of Rural Credit – Institutional and Non-Institutional Credit – Rural Indebtedness : Causes and Consequences – Institutional Credit for Rural Development – Role of NABARD - Role of Cooperative Credit Institutions – Role of Commercial Banks – Role of Regional Rural Banks – Functions of Lead Bank Scheme – Micro Finance Institutions.

**Block – III**                      **Rural Development Institutions**

**Unit – 9**                      **Infrastructure for Rural Development**

Transport and Communication: Road Connectivity – Access to information – Power Supply – Education: importance of education – Status of Schools and Enrolment – Compulsory Primary Education –Importance of Education for Rural Reconstruction – New Education Policy: Navodaya Schools, Sarvashiksha Abhiyan (SSA) – Right to Education – Current Issues – Health Care Facilities: Medical Care

– Hospitals –Health for all – Programmes for Health Care welfare Services – Rural Housing – Problems and Programmes

**Unit – 10 Rural Social Problems**

Untouchability – Juvenile Delinquency – Problems of the Disabled Beggary – Prostitution – Child Labour – Problems of the aged – Bonded Labour – HIV/AIDS Affected families.

**Unit – 11 Evolution of Decentralisation and Panchayath Raj Institutions**

Historical Development; Village Panchayats in Ancient India – Panchayaths before Independence– Royal Commission on Decentralisation (1907) – Panchayath Committee of Local Self Government – 73<sup>rd</sup> Constitutional Amendments (1992 and 1993) – Functions of Panchayat Samiti – Reservation for Women.

**Unit – 12 Rural Development Policies**

Rural Development Policies in Pre independence India – Approaches of Rural Development in Independent India - Rural Development Policies during different Plan Periods – Recent Models of Rural Development Programmes.

**References:**

1. Satya Sundaram I, (2011) Rural Development, Himalaya Publishing House, New Delhi.
2. Jain Gopal Lal (1998), Rural Development, Mangal Deep Publications, Jaipur.
3. Katar Singh, (2009) Rural Development: Principles Policies and Management, Sage Publications, New Delhi.
4. Shriram Maheshwari (1995), Rural development in India: A Public Policy approach, Sage Publications, New Delhi.
5. Dubashi, P.R. (1985), Rural Development in India, New Delhi.
6. Mishra, R.P., Rural Development, 4 vols.
7. Vasanth Desai (1988), Rural Development, 6 vol., Himalaya, Bombay.
8. Abdul Aziz (1984), Organising Agricultural Labourers, Ashish, New Delhi.
9. Brennar, J. and S. Mundle eds. (1998), Rural Transformation in Asia.
10. Chattarjee, S.K. (1981), Development Administration in India, Surjeet, Delhi

**Karnataka State Open University, Master of Arts in Economics, Semester – III**

**Course – SC3.1B: Demography-1**

- **Objective:** To enable the students to have the knowledge of Demographic transition & dividend.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 3

- Examination Duration: 3 hours and Maximum Marks: 100

### **Course Inputs**

#### **Block – I**

#### **Introduction to Demography**

##### **Unit 1:**

##### **Nature and Scope of Economics of Demography**

Definition of Demography - Nature of Demography - Scope of Demography- Demography and other Disciplines - Importance of Demography

##### **Unit 2:**

##### **Theory of Demographic Transition**

Meaning of Demographic Transition - Theory of Demographic Transition- Different views on Demographic Transition - Notestein and Cowgill's Theories of Demographic Transition Demographic Transition in the course of Economic Development Zero -Population growth Critical Review of Demographic Transition

##### **Unit 3:**

##### **Role of population in Economic Development**

Role of Population as an accelerating factor - Role of population as a retarding factor

##### **Unit 4:**

##### **Malthus' pessimistic theory of Population**

Malthus' pessimistic theory - Assumptions - Central theme of the theory - Importance of Malthusian theory - Application of Malthus' theory - Criticisms - Neo-Malthusian theory

#### **Block – II**

#### **Theories of Demography**

##### **Unit 5 :**

##### **Optimistic Theories of Population - Marxian Theory of Surplus Population**

Marx and Malthusian views of Population - Explanation of Marx's Theory - His definition about development - Karl Marx's Theory of Surplus Population - Marx's socialist views about population - Critical evaluation of Marx's Theory

##### **Unit 6 :**

##### **Population And Keynesian Thesis**

Keynes' views and Malthusian Theory - Keynes and declining population - The Neo- Keynesian views - Advantages of population growth - Criticisms

##### **Unit 7:**

##### **Cannon's Optimum theory of population**

Definition of optimum population - Assumptions - Explanation of the Theory - Superiority of optimum theory - Criticisms

##### **Unit 8 :**

##### **Population and Economic Development of Less developed countries**

Concept of Less-development and features of less-developed countries - Effects of Population on Economic Development in Less Developed Countries - Control of population

#### **Block – III**

#### **Structure of Population And Fertility**

##### **Unit 9 :**

##### **Population Trends in the 21 st Century**

Population Trends - population explosions - Structure of population in developed and less developed countries

##### **Unit 10 :**

##### **Demographic Effects of Population and Life Table**

Effects of Sex and age Structure - Problems due to ageing - Construction and Uses of Life Table - Concept of Stable Population - Methods of Population Projection

**Unit 11 : Theories of fertility**

Meaning and importance of the study of Fertility - Importance of the study of Fertility Trends in Fertility - Factors affecting Fertility- Biological Theories and Hypothesis of fertility - Structure: Biological Theories of Fertility - The Density Principle - The Diet Principle - Gini's Theory - Biological Theory of spencer - Castro's Theory of Protein Consumption

**Unit 12 : Socio - Cultural and Economic Theories**

Social Theories of Fertility - Economic Theories of Fertility - Socio-Economic Theories - Differential Fertility

**References :**

01. Asha Bhende and Tara Kanitkar (2000), Principles of population studies, Himalaya Publishing house, New delhi.
02. Agarwal S.N. (1972), India's Population Problem, Tata McGraw- Hill Co., Bombay.
03. Bogue, D.J (1971) Principles of Demography, John Wiley, New York.
04. Choubey, P .K. (2000), Population Policy in India, Kanishka Publications, New Delhi.
05. Coals, A.J. and E.M. Hoover (1958), Population Growth and Economic Development in Low income
06. Gupta, J. A. (2000), New Reproductive Technogies, Women's Health and Autonomy, Indo Dutch Studies
07. Novell, C. (1988), Methods and Models in Demography, Belhaven Press, London.
08. Srinivasan K (1998), Basic Demographic Techniques and Applications, Sage, New Delhi.

**Karnataka State Open University, Master of Arts in Economics, Semester – III**

**Course – SC3.2A: CONTEMPORARY INDIAN ECONOMY**

- **Objective:** To enable the students to understand the emerging trends in the contemporary Indian economy.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 3
- Examination Duration: 3 hours and Maximum Marks: 100

**Course Inputs**

**Block – I Industrial Sector in India**

**Unit – 1 Large Scale Industries**

Importance and Problems of Large Scale Industries – The Iron and Steel Industry – Cotton industry – The jute industry – The Sugar industry – The Cement Industry – The Paper Industry – Petroleum industry and Automobile industry.

**Unit – 2 Information Technology Industry**

IT and Knowledge Economy - IT and India – Major issues in IT Sector – Growth and Present states of IT industry in India – Future Prospects of IT industry.

**Unit – 3 Industrial Labour and Policy**

Problems – Features and status of industrial Labour in India. Trade Union Movement – Industrial Disputes in India – Causes for Industrial Disputes - Settlement of Industrial Disputes - Social Security Measures in India.

**Unit – 4 Sources of Industrial Finance**

Long-Term Lending Financial Institutions – Industrial Finance Corporation of India – (IFCI) – Industrial Credit and Investment Corporation of India – (ICICI) – Industrial Development Bank of India (IDBI) – Industrial Reconstruction Bank of India (IRBI) - - Small Industrial Development Bank of India (SIDBI) – State Financial Corporation (SFCs) – State Industrial Development Corporation (SIDCs) – Investment Institutes: The Unit Trust of India (UTI) – Other Investment Institutions.

**Block – II Economic Policy and Industrial Development**

**Unit – 5 Industrial Sickness**

Causes for Industrial Sickness; External Causes – Internal Causes – Consequences of Industrial Sickness – Government Policy on Industrial Sickness – Remedial Measures taken by Banks and Government.

**Unit – 6 Privatisation and Disinvestment in India**

Concept and Objectives of Privatisation – Needs for Privatisation – Methods of Privatisation – Privatisation in India – Evils of Privatisation – Concept and Objectives of Disinvestment – Methods and Progress of Disinvestment Strategies of Disinvestment – Limitations of Disinvestment.

**Unit – 7 Regulation of Private Corporate Sector**

Private Corporate Sector in India – Regulation of Private Corporate Sector Licensing – Industries Development Act (1951) – Hazari Report – Dutt Committee Report – The Foreign Exchange Management Act – 1999 (FEMS) – Silent Features of FEMA.

**Unit – 8 Anti-Monopolies and Restrictive Trade Practices Regulation**

Economic Concentration in India – Mahalanobiscommittee – Manifestation of Economic Power – Extent of Economic Concentration – Consequences of Economic Concentration: Economic and Social Consequences – Causes for Economic Concentration – Monopolies and Restrictive Trade Practices (MRTP) Act (1969).

**Block – III Policies and Reforms in Money and Banking System of India**

**Unit – 9      Supply of Money in India**

Present Indian Currency System – Money Supply in India – Four Measures – Money supply measures and liquidity – Narrow Money and Broad Money – Factors – Influencing money supply in India – Trends and Implications of Money Supply in India – Money supply and Price behaviour in India – Causes for price rise in India – Impact of Money Supply on Prices – Anti-Inflationary Policy of the Government – Chakravarthy Committee Recommendations.

**Unit – 10      Money Market and Capital Market in India**

Money Market: Meaning – Importance – Nature – Composition and Characteristics of Indian Money Market – The Reform of Indian Money Market – Suggestions for Improvement of the Indian Money Market.

Indian Capital Market: Structure, Growth and Role of Capital Market in India's Industrial Growth of Capital Market - Factors contributing to the growth of Capital Market in India – Problems of Indian Capital Market – Capital Market Reforms – SEBI and Capital Market Development.

**Unit – 11      Commercial Banking System**

Banking Development in India: Nationalisation of Banks - Progress in Branch Expansion – Progress in Deposit Mobilisation – Mass Banking – Priority to Neglected Sectors – Public Sector Banks – Establishment of RRBs – Banking Sector Reforms.

**Unit – 12      Reserve Bank of India and Monetary Management**

Structure and functions of Reserve Bank of India – Monetary Policy of Reserve Bank of India – Meaning and Objectives – Instruments of Monetary Policy – Monetary Policy – A Performance Evaluation.

**References:**

01. S.K Misra and V.K Puri(2008) Indian Economy Himalaya Publishing House, Delhi.
02. Ruddadrrth & K.P.M Sundram (1996) Indian Economy- S Chand & Company Ltd NewDelhi.
03. A N Agrawal (1975) Indian Economics (Problemes of Development & Planning) New Delhi.
04. Ishwar C Dhinges (2012) The Indian Economy Environmental and Policy- Sultan & Sons, New Delhi.
05. Rajkamal Sen, Biswjit Chatterjee-Indian Conomy, Deep and Deep Publications. New Delhi.
06. Shankaran (2004) Indian Economy.
07. Hanson James A., and Sanjay Kathuria (Ed), India-A Financial Sector for the Twenty-First Century, World Bank, Oxford University Press, New York.

08. Kapila Uma, Understanding the Problem of Indian Economy, Academic Foundation, New Delhi.
09. Kapila Uma, Indian Economy since Independence, Academic Foundation, New Delhi.
10. NCAER, Economic and Policy Reforms in India, National Council of Applied Economic Research, New Delhi.
11. Vaidyanathan A, India's Economic Reforms and Development, Academic Foundation, New Delhi.
12. Government of India, Economic Survey Reports, Ministry of Finance, New Delhi.
13. Planning Commission, Five Year Plan Drafts, (6th to 12th Plan) New Delhi.
14. Reserve Bank of India, Report on Currency and Finance, Mumbai.

## **Karnataka State Open University, Master of Arts in Economics, Semester – III**

### **Course – SC3.2 A: WELFARE ECONOMICS - I**

- **Objective:** To enable the students to acquire the knowledge of Welfare economics.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 3
- Examination Duration: 3 hours and Maximum Marks: 100

#### **Course Inputs**

#### **Block I: Nature and scope of welfare Economics**

##### **UNIT: 1 Nature and scope of welfare Economics**

Definition - nature of welfare economics - subject matter - positive economics and welfare economics - individual, general and social welfare - value judgement - welfare state - different functions of welfare state - social security schemes - Public sector enterprises.

##### **UNIT: 2 Pre-Paretain welfare Economics and Benthamite Approach to Aggregate welfare**

Classical theory - welfare and classical value theory - economic problem - classical welfare ideas - classical theory of trade and welfare - Marginal revolution and welfare economics - two main lines of development Benthamite approach- Happiness of society - aim of the government - limitations and institutional arrangements.

##### **UNIT: 3 Individual Consumption and Income Distribution**

Meaning of Utility - Cardinal utility - relation between utility and welfare - measurement of utility - ordinal measurement - monotonic transformation and linertransformation - Income Distribution- Real income - Lerner's views, utilitarian's view - marginal utility of money - distribution of income.

##### **UNIT: 4 Marshallian welfare Economics**

Meaning - Marshallian Welfare Economics 0 Consumer's and producer's Surplus - doctrine of maximum satisfaction - tax- bounty analysis - consumer surplus and welfare effect - tax- bounty analysis and Hicks.

**Block II: Basic Theories of Welfare Economics**

**UNIT: 5 Compensation Principle and Principle of Compensation Variation**

Meaning, New Welfare Economics – Two lines of Developments – Assumptions - Compensation Principle – Utility Possibility curve, Criticisms, Principle of Compensation Variation - Measurement of consumer's surplus with indifference curve - consumer's surplus with diminishing marginal utility of money, comparison of Hicks and Marshallian consumer's surplus - Hicks concept of consumer surplus - application and importance of consumer's surplus.

**UNIT: 6 Scientific Socialism**

Meaning, Socialists views – Limitations in a free enterprise economy – state intervention – Miser – Hayek – Robbins views - Democratic Socialism

**UNIT: 7 Pareto Optimality**

Meaning, Pareto Optimality- Pareto criterion, utility possibility curve, Pareto optimum and marginal conditions, second order and total condition, evaluation of Pareto optimality.

**UNIT: 8 Contribution of Scitovsky**

Meaning, Scitovsky's Paradox - Scitovsky's double criterion of welfare, criticism – community indifference curves- criticism

**Block III: Contribution to Welfare Economics by Modern Economists**

**UNIT: 9 Contribution of Samuelson**

Contribution of Samuelson- Revealed preference, Samuelson's conditions for welfare maximization – Pure exchange conditions – Samuelson's and social indifference curves – Samuelson's procedure.

**UNIT: 10 Contributions of Burgson**

Contribution of Burgson – Social welfare function and value judgment – individualistic social welfare function – representation of Burgson – Samuelson welfare function through social indifference curves, maximum social welfare, critical evaluation

**Unit: 11 Contributions of Arrows**

Arrow's Theory of Social Choice, condition of social choice, Arrow's theory of Impossibility, Arrows Consequences, alternative social choice theories

**UNIT: 12 Pigouvian welfare Economics**

Pigouvian concept of economic welfare, main elements of Pigouvian Welfare Economics – two basic propositions - Problems of Non- Market interdependence- Externalities of Production and consumptions

**References :**

1. Kunde K B (1971): Welfare Economics: an introductory analysis, Navabharat publication, New Delhi.

2. Little I M D (1950): A Critique of welfare Economics, Oxford university press U.K.
3. Graaff J.D.V (1968), Theoretical welfare Economics Cambridge University press U.K.
4. K.J. Arrow (1951); Social choice and Individual values yale University press, USA.
5. H.L. Ahuja (2014); Advanced Economic Theory S. Chand & Co. New Delhi.
6. Koutsoyiannis A (1982); Modern Micro Economics Mc Millan U K
7. AC Pigou (1920); The Economics of welfare Macmillan and Co. U K
8. D Macrice (1969); welfare Economics and the Economics of socialism macmillan and U.K.
9. Robert Dekachman (1976); A History of economic ideas, Mcg raw Hill publication New Delhi.
10. Scitovsky, Tibor (1958), Two concepts of external economics “Journal of politicalEconomy” Vol No. 17, University of Chicago press (US).

## **Karnataka State Open University, Master of Arts in Economics, Semester – IV**

### **Course – HC4.1: Economics of Development-II**

- **Objective:** To enable the students to understand the concept of sustainable development & millennium developmental goals.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 4
- Examination Duration: 3 hours and Maximum Marks: 100

#### **Course Inputs**

##### **Block I : Introduction to sustainable Development**

###### **UNIT 1 : Sustainable Development**

Meaning – objectives – Environmental problems – causes and policies for sustainable development – Measuring Sustainable development.

###### **UNIT 2 : Economic Growth and Income Distribution**

The Kuznets Hypothesis - Causes of Income increasing inequality with development – causes of relation in inequality with development.

###### **UNIT – 3 : Modern Economic Growth**

Meaning – characteristics of Modern Economic Growth conclusion – Factors of Economic Growth : Economic and Non – Economic factors

###### **UNIT – 4 : Chenery’s Patterns of structural change: Introduction – Development Process – Accumulation Process – Resource Allocation Process – Demographic and Distributional Process.**

##### **Block II : Economic Growth Models**

###### **UNIT – 5 : Solow model of Long – Run Growth and Meade’s model of Economic Growth.**

Introduction – Assumptions – Critical Appraisal – Applicability of Solow model to UDCs – The Meade model – A Critical Appraisal.

**UNIT – 6 : Joan Robinson’s model of capital Accumulation**

Introduction – Main Index of Joan Robinson on Economic Development – Relevance to UDCs.

**UNIT – 7 : Harrod – Domar model**

Introduction – Main elements of Harrod – Domar growth model – obstacles and constraints – applicability to UDCs.

**UNIT – 8 : Endogeneous Growth theory**

Arrow’s, Lucas and Romer’s model – criticisms – Policy implications of Growth theory - Implications for Developing countries.

**Block III : Some Growth models**

**UNIT – 9 : Balanced and unbalanced Growth model:**

Introduction – Balanced Growth – critical Appraisal – unbalanced Growth – critical Appraisal.

**UNIT – 10 : Kaldor model of Distribution and Pasinetti model of Profit and Growth.**

Introduction – Assumption – The model – critical Appraisal – Pasinetti model – criticisms.

**UNIT 11 : Nelson’s low level equilibrium Trap:**

Introduction – explanation of theory – graphical representation – critical Appraisal.

**UNIT –12 : Harris – Todaro model of Migration and unemployment**

Introduction – Assumptions – The model-Policy Implications of Harris – Todaro model – A critical Appraisal.

**Block IV : International measures for Economic Development**

**UNIT–13: Foreign Trade and Economic Development:** Introduction – Importance of Foreign Trade-Direct Benefits – Indirect Benefit – criticism.

**UNIT -14 : Private Foreign Investment and Multinationals:**

Nature – Merits and Demerits of Private Foreign Investment – Multinational corporation and LDCs-Meaning – spread of Multinational corporation- Merits and Demerits of Multinational corporation.

**UNIT – 15 : Economic Integration among Development countries:** Need for Economic Integration – Benefits from Economic Integration – Problems of Economic Integration – Measures to encourage Economic Integration among Developing countries.

**UNIT –16 : Millennium Development Goals**

Introduction – Goals and Targets – Strategies- How to achieve the Goals – Implementation of Millennium Development Goals in India – Progress of Millennium Development Goals.

**References:**

01. A.N. Agarawal and Kundan Lal (2006), ‘Economics of Development and Planning’, Vikas Publishing House Pvt Ltd, Thrid edition, New Delhi.

02. Mishra and Puri (2012), 'The Economics of Development and Planning', Himalaya Publication, 15<sup>Th</sup> Edition, New Delhi.
03. N.T. Somashekar (2007), 'Development Economics', New age International Publishers, second edition, New Delhi.
04. M.L. Jhingan (2009), 'The Economics of Development and planning' 39th Edition, Vrinda Publication (p) Ltd, Delhi.
05. Michael .P. Todaro, stephen E. Smith (2003), Economic Development; Dorling Kinders Pvt Ltd, Eight edition, New Delhi.
06. M.L. Jhingan, 2010, The Economics of Development and planning, (p) L T D, 39<sup>th</sup> edition, Vrinda publications, Delhi.
07. R.C. Agarwal, 2013-14, Economics of Development and planning, Education publisher, Agra.

## **Karnataka State Open University, Master of Arts in Economics, Semester – IV**

### **Course – HC4.2: PUBLIC ECONOMICS-II**

- **Objective:** To enable the students to understand the tools of Fiscal policies.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 4
- Examination Duration: 3 hours and Maximum Marks: 100

#### **BLOCK -1: PUBLIC REVENUE AND TAX SYSTEM**

##### **UNIT : 1 Public Revenue**

Meaning –Sources of Public Revenue – Classification of Public Revenue-Principles of Public Revenue Significance.

##### **UNIT : 2 Taxation**

Meaning-Nature-Types characteristics of good tax system-Cannons of taxation-Progressive –Proportional-Regressive tax system-Elasticity of Taxation-Theory of optimal taxation.

##### **UNIT : 3 Tax Incidence and shifting**

Meaning-impact of taxation- Effects and incidence of taxation-Distinction between impact and incidence- Importance-Different approaches to the division of tax burden-Shifting of taxation theories of incidence-Musgrave's contribution.

##### **UNIT : 4 Tax Reforms and Policy in India.**

Reforms in direct and Indirect Taxes- Recent committee. Recommendations -GST and its Implications.

#### **BLOCK -2: Budget and Public Expenditure**

##### **UNIT 5 : Wagner's Law of Increasing State Activity and Wiseman -Peacock Hypothesis -Pure theory of public Expenditure.**

Introduction-Meaning and scope- theories of Public expenditure-Reasons for growth of public expenditure –control and accountability of public expenditure.  
**UNIT : 6 Social Cost- Benefit Analysis –Project Evaluation.**

Introduction-Origin of Cost –Benefit Analysis- objective function of SCBA- Difficulties in the valuation and measurement of Benefits and costs-Shadow pricing in SCBA- Critical evaluation.

**UNIT : 7 Public Expenditure and Cannons of Public Expenditure**

Meaning-Increasing Public Expenditure Causes for increasing public expenditure.

**UNIT : 8 Public Budget**

Meaning - Purpose - Characteristics - Significance of preparation of budget - Performance budgeting - Programme budgeting- zero Base budgeting deficit-budget-Reforms.

**BLOCK -3: Public Debt and Debt Management**

**UNIT : 9 Sources of Public Debt**

Introduction - Meaning-Reasons for increasing public debt-classifications of public debt-sources of public borrowing –Effects of public debt.

**UNIT : 10 Debt Management.**

Meaning of burden of public debt-Public debt management - Objective-Need-Redemption of public debt-Methods of debt Redemption

**UNIT : 11 Public Debt in India**

India's public debt after independence- Trends and composition of public debt of Central and state governments.

**UNIT : 12 Administrative Reforms for Good Governance**

Right to information-measures towards good governance –A New thrust to planning NITI Ayoga and Aft math.

**BLOCK –IV Financial Relations in India**

**UNIT : 13 Federal Finance**

Concept and Nature of Indian Federalism –Problems of feudal/multi-level finance - Horizontal and vertical Imbalances

**UNIT : 14 Center –State Financial Relations in India**

State financial relations under the constitution –Rational of constitutional arrangements- Machinery for financial adjustment in India- Philosophy of articles 268 and 269-Mechanism of central transfers to the state in India-Problems of center - state financial relations in India.

**UNIT : 15 Finance Commission**

Functions of finance commission-New systems of sharing central taxes with state government-Gadgil formula-Recommendations of 14<sup>TH</sup> Finance commission-Recant finance commission-Federalism and decentralization.

**UNIT : 16 Local Governments**

Rationale of local bodies - General background-New decentralized dispensation in India Devaluation of functions of Panchayathi Raj Institutions under 73<sup>rd</sup> constitutional amendment Gram Panchayath- Zilla Parishads –urban local bodies.

**References:**

1. Om Parkash (2008) Public Economics: Theory and Practice, Vishal Publishing CO.Jalandhar – Delhi.
2. R.K. Lekhi (2012) Public Finance, Kalyani Publishers, Ludhiana
3. Tyagi B.P. (2016) Public finance, Jai Prakashnath and Company, Meerut, India.
4. Buchanan J.M. (1970) The public Finance, Richard D. Irwin, Homewood.
5. Stiglitz J.E (2005) Economics of Public Sector, Norton, Newyork.
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**Karnataka State Open University, Master of Arts in Economics, Semester – IV**

**Course – HC4.3: STATISTICS FOR ECONOMICS**

- **Objective:** To enable the students to use statistical tools to measure or test the macro economic variables.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 4
- Examination Duration: 3 hours and Maximum Marks: 100

**Course Inputs**

**Block – I Introduction to Statistics**

**UNIT : 1 Basics of Statistics**

Meaning and Scope of Statistics - Descriptive and Inferential Statistics-Importance- Scope and Limitations.

**UNIT : 2 Data Collection , Classification and Tabulation of Data**

Sources of Data and Statistical Enquiry, Survey Method of Collection of Data- Statistical Errors - Classification and Presentation of Data.

**UNIT : 3 Diagrammatic Representation of Data**

Types of Diagrams in Statistics - Pie-Diagram – Histogram - Ogive Curve Limitations of Diagrammatic and Graphical Representation of Data.

**UNIT : 4 Measures of Central Tendencies**

Introduction to Mean –Median – Mode and its Applications

**Block – II**                      **Measures of Dispersion, Correlation and Regression**

**UNIT : 5**            **Measures of Dispersion**

Range - Mean Deviation - Quartile Deviation and Its Applications.

**UNIT : 6**            **Standard Deviation**

Standard Deviation Variable-Lorenz Curve-Their Merits and Demerits- Gini's Coefficient.

**UNIT : 7**            **Correlation**

Meaning of Correlation, Partial-Positive and Negative Correlations, Linear and Non - Linear Correlation - Karl Pearson's Coefficient of Correlation-Rank Correlation.

**UNIT : 8**            **Regression Analysis**

Meaning-Distinction between Correlation and Regression- Simple Linear Regression – Least Square Method – Goodness of Fit – Introduction to Multiple Regression.

**BLOCK : III**            **Time Series, Index Number and Probability Theory**

**UNIT : 9**            **Analysis of Time-Series**

Components of Time Series - Methods to Overcome Fluctuations in the Time Series- Freehand Method-The Semi Average Method - The Moving Average Method –Fitting a Linear Curve to Given Data by the Method of Least Squares.

**UNIT : 10**        **Business Forecasting**

Introduction – Role of Forecasting in Business – Steps in Forecasting – Methods of Forecasting – Theories of Business Forecasting.

**UNIT : 11**        **Index Numbers**

Definition - Construction of Price Index Numbers - Problems of Construction-Marshall and Edgeworth and Fishers Ideas - Weighted Average of Price Relatives-Quantity Index Numbers - Consumer Price Index Numbers – Uses of Price Index.

**UNIT : 12**        **Probability Theory**

Deterministic and Non Deterministic Experiments- Various Types of Events-Classical and Empirical Definitions of Probability - Laws of Additions and Multiplications-Conditional Probability and Concept of Interdependence Baye's Theorem and its Applications.

**BLOCK : IV**            **Theoretical Distributions and Hypothesis Testing**

**UNIT : 13**        **Skewness and Kurtosis**

Karl Pearson's Measures of Skewness - Bowley's Measures of Skewness-Kurtosis.

**UNIT : 14**        **Theoretical Distributions**

Permutation and Combinations-Binomial Distribution- Their Properties-Elementary Problems on these Distributions.

**UNIT : 15**        **Theory of Estimation and Hypothesis Testing-I**

Hypothesis Testing – Approaches to Hypothesis Testing – Confidence Interval Approach – Test of Significance Approach and P-Value Approach – Formulation of Hypothesis – Null and Alternative – Level of Significance.

**UNIT : 16 Theory of Estimation and Hypothesis Testing-II**

One Sided and Two Sided Hypothesis – Type-I and Type – II Error Test Statistic - Critical Value – Parametric and Non-Parametric Tests.

**References:**

01. Elhance D.N. et.al. (1996), Fundamentals of Statistics. Kitab Mahal, Allahabad.
02. Goom A.M. and Gupta M.K. (1975), Fundamentals of Statistics, The world Press Ltd. Kolkata.
03. Gupta B.N. (1992), Statistics Theory and practice, Sahithya Bhavan, Agra.
04. Gupta, S.P. (1983), Statistical Methods, S. Chand and Company, New Delhi.
05. Gupta. S.C. (1982), Fundamentals of Statistics, Himalaya Publishing House Private Limited, Mumbai.
06. Yogish. S.N. (2008), Statistical Method for Economics, Vikas publisher, New Delhi.
07. G.S. Monga, 2002, Mathematics and Statistics for Economics, vikas Publisher, New Delhi.
08. J. Medhi, 2000, Statistical methods an introduction, New Age International (P) Limited Publisher, New Delhi.
09. Sonia Taylor, 2001, Business Statistics, Palgrave Publisher, Delhi.

**Karnataka State Open University, Master of Arts in Economics, Semester – IV**

**Course – SC4.1A: KARNATAKA ECONOMY**

- **Objective:** To familiarize the students about the issues & challenges of Karnataka Economy.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 3
- Examination Duration: 3 hours and Maximum Marks: 100

**Course Inputs**

**Block – I Introduction to Karnataka Economy**

**Unit – 1 Introduction to Karnataka Economy**

Features of Karnataka Economy – Place of Karnataka Economy in India – Per capita Income – Structure of Karnataka Economy – HDI in Karnataka – Karnataka as Knowledge Capital of India – Karnataka as FDI Destination.

**Unit – 2 Geographical Features of Karnataka and Natural Resources**

Geographical Situation – Geographical divisions of Karnataka – Climate and Seasons in Karnataka – Rain fall in Karnataka – Natural Resources: Land – Forest – Water – Mineral – Energy– Environmental Destruction and Protection in Karnataka.

**Unit – 3 Human Resources of Karnataka**

Importance of Human Resources - Population Composition of Karnataka – Causes for Rapid Growth of Population – Effects of Population Explosion – Measures to Check Growth of Population – Control of Population: Government Efforts.

**Unit – 4 Irrigation in Karnataka**

Importance of Irrigation – Sources of Irrigation – Important Irrigation Projects of Karnataka – Problems of Irrigation – Dry Land Farming – Rain Water Harvesting (RWH) – Command Area Development.

**Block – II Agriculture and Industries**

**Unit – 5 Agriculture**

Importance of Agriculture – Important Crops of Karnataka – Agricultural Productivity in Karnataka - Agricultural Development Programmes in Karnataka – Problems in Agriculture – Land Reforms in Karnataka – Application of Science and Technology in Agriculture – Irrigation – Watershed Development.

**Unit – 6 Marketing System in Karnataka**

Agricultural Marketing System in Karnataka – Defects of Agricultural Marketing in Karnataka – Measures Taken by Government – Ware Housing in Karnataka – Agricultural Prices -Agrarian Crisis – Agriculture Price and Procurement Policy – Public Distribution System (PDS).

**Unit – 7 Economic Prospects of Allied Activities**

Horticultural/Plantation Crops – Vegetables and Fruits – Floriculture – Sericulture – Fisheries – Live Stock.

**Unit – 8 Industrial Sector of Karnataka**

Importance of Industries in Karnataka – Classification of Industries – Problems – Major Industries in Karnataka – Importance of Small Scale and Cottage Industries – Problems and Measures – Growth of Public Sector Industries in Karnataka – Industrial Finance – Industrial Labourers – Industrial Policy.

**Block – III Infrastructural Facilities and Regional Disparity in Karnataka**

**Unit – 9 Infrastructure in Karnataka**

Importance of Infrastructure – Electricity – Transport: Road Transport, Railway Transport, Water Transport, Air Transport – Communications – Education – Health services – Housing Facilities – Water Supply and Sanitation.

**Unit – 10 Banking System in Karnataka**

Banking System in Karnataka – Indigenous Bankers- Commercial Banks – Regional Rural Banks – Cooperative Banks and Societies.

**Unit – 11 Public Finance of Karnataka**

Sources of Revenue – Tax Revenue and Non-Tax Revenue – Sharing of Central Taxes and Grants in Aid – Tax Reforms in Karnataka – Growth of Public Expenditure – Karnataka Budget – State Finance Commission – E-Governance in Karnataka.

**Unit – 12 Regional Disparities in Karnataka**

Regional Imbalance – Causes and Consequences – The Concept of Back-Ward Areas – Criteria and Identification – Techniques to Reduce Imbalances – Recommendations of Nanjudappa Committee - Recommendations of Pande, Wanchoo and Shivaraman Committees – Recommendations of High Power Committee for Redressal of Regional Imbalances (HPCRPI).

**References:**

1. Meti J.K (1976) Economy of Karnataka and Planning, Oxford and IBM New Delhi.
2. Madaiah M and Ramapriya (1988), Karnataka Economy, Himalaya Publishing House, Mumbai.
3. Puttaswamaiah. K. (1980) Economic Development of Karnataka: A Treatise in continuity and change, volume 1&2, oxford & IBH, new Delhi.
4. Nanjudappa D M (1971), Some Aspects of Karnataka Economy, Dharwad.
5. Gowda MVS and D.T. Nanjegowda, Economic Development of Karnataka Leading Issues

**Karnataka State Open University, Master of Arts in Economics, Semester – IV**

**Course – SC4.1B: DEMOGRAPHY-II**

- **Objective:** To expose the students regarding the concepts of demography.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 3
- Examination Duration: 3 hours and Maximum Marks: 100

**Course Inputs**

**Block – I: Population and Migration**

**Unit 1 : The Stage Theory of Population and Marriage**

The Stage Theory of Population, Critique, Concept of Marriage, Analysis of Marital Status, Trends in Age and Marriage, Differentials in Mean Age at Marriage

**Unit 2 : Measurement and Theories of fertility and Mortality**

Measures of Fertility, Proximate Determinants of Fertility, Meaning and Importance of the study of Mortality, Measures of Mortality, Trends of Mortality, Mortality Differentials, Factors of Mortality Decline

**Unit 3 : Migration and Population Change**

Kinds of Migration Causes of Migration, Migration Effects on Population, Factors Affecting Migration, Obstacles in Migration

**Unit 4 : Theories of Migration :**

Theories related to Internal Migration, Urbanization, United Nations Classification of Urbanization, Process of Urbanization, Measures of Degree of Urbanization, Determinants of Urbanization, Distribution of Rural - Urban Population.

**Block II: Population And Man Power Economics**

**Unit 5: Methods of Measuring, Migration, Lewis and Todaro Models of Migration :**

Methods of Measuring Internal Migration, Place of birth method, Duration of Residence Method, Place of Last Residence Method, Indirect Measures for Estimating Internal Migration, Sources of Finding International Migration, Lewis Model of Unlimited Supply of Labour, Todaro Model of Migration.

**Unit 6 : Population Change and Environment Protection :**

Population - Environment Analysis, Demographic Background, Population impact on the environment, Environmental impacts on population, Critical Issues, Types of population, Population, Development and Environment

**Unit 7 : Population and Education Problems - Education Policy :**

Returns to Education, Impact of family size on the amount of education children receive, Trends in the total and school age population, Trends in School Enrolment and Educational Attainment, Problems involved in education and policy aspect.

**Unit 8: Manpower Economics and Manpower Supply :**

Human Capital, Cost-Benefit Analysis applied to education, Manpower Planning Manpower Shortages, Manpower Surpluses, Strategy for manpower planning

**Block III: Demography in India and World**

**Unit 9: Manpower Economics and Manpower Demand:**

The concept of Manpower Requirement, Validity of Manpower forecasting, Methods of Manpower forecasting, Employer's Estimate of future manpower requirement, Method of International Comparison, Method of Manpower-Population Ratios, Method of Extrapolation of fixed input-output ratios, The links between Manpower, Levels of output and education, The analysis of Manpower Demand.

**Unit 10 : Fertility and Mortality in India**

Fertility Concept, Historical Background Trends in fertility and its Measures, Reasons for High Fertility in India, Measures to control High Fertility, Mortality-Meaning, Trends in and measures of Mortality-Crude Death Rates, Differential Mortality in India, Infant Mortality, Expectation of Life at Birth, Measures to control High Fertility, Sterility in India, Population Policy India

**Unit 11 : Different aspects of Demography in India and Food and Nutrition Position in India**

Different Aspects of Demography in India, Density, Sex Ratio, Religion Wise Population, Literacy, Importance of Food and Nutrition, Position of Food and

Nutrition in India and their problems, Factors that affect Food and Nutrition, Public Distribution System and Food Security (PDS), PDS and Poverty, Defects of PDS, Revised System Public Distribution

**Unit 12 : Study of Census in India and Trends in World Population**

Census of 1971, Census of 1981, Census of 1991, Census of 2001, Census of 2021, Growth of World Population (1000-1940), Recent Trends in world population, Causes for Rapid growth of world population, Different Aspects of world population, Distribution of world population, Reasons for unequal distribution of world population, Implications of uneven distribution of world population  
Different views of Global population

**References :**

01. Asha Bhende and Tara Kanitkar (2000), Principles of population studies, Himalaya Publishing house, New delhi.
02. Agarwal S.N. (1972), India's Population Problem, Tata McGraw- Hill Co., Bombay.
03. Bogue, D.J (1971) Principles of Demography, John Wiley, New York.
04. Choubey, P .K. (2000), Population Policy in India, Kanishka Publications, New Delhi.
05. Coals, A.J. and E.M. Hoover (1958), Population Growth and Economic Development in Low income
06. Gupta, J. A. (2000), New Reproductive Technogies, Women's Health and Autonomy, Indo Dutch Studies
07. Novell, C. (1988), Methods and Models in Demography, Belhaven Press, London.
08. Srinivasan K (1998), Basic Demographic Techniques and Applications, Sage, New Delhi.

**Karnataka State Open University, Master of Arts in Economics, Semester - IV**

**Course – SC4.2A: CONTEMPORARY INDIAN ECONOMY**

- **Objectives:** To enable the students to understand the importance of policies & programmes of Indian Economy.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 3
- Examination Duration: 3 hours and Maximum Marks:100

**Course Inputs**

**Block – I Indian Public Finance**

**Unit – 1 Fiscal Policy**

Objectives of Fiscal Policy in India – Fiscal Policy and Growth Performance of the Economy: Resource Mobilisation – Allocation Efficiency – Fiscal Equilibrium - Tax Structure – Promoting Socially Desirable Activities – Market Oriented Development – The Fiscal Imbalance and Crisis – Fiscal Correction – Remedial

Measures – Features of New Fiscal Policy – Fiscal Responsibility and Management Bill.

**Unit – 2 Public Revenue and Public Expenditure**

Revenue of the Central Government: Tax Revenue and Non-Tax Revenue – Taxation in India: Trends – Tax Reforms Since 1991 – Public Expenditure in India – Growth – Trends – Composition – Causes for Increasing Public Expenditure – Public Expenditure Management – Expenditure Reform Commission.

**Unit – 3 Public Debt and Deficit Financing**

Public Debt in India: Growth - Trends – Composition – Causes for Increasing Public Debt – Debt Obligations of the Central Government - Role of Public Debt in India – Problems and Issues – Deficit Financing in India – Objectives and Role of Deficit Financing in India – Evil Consequences of Deficit Financing – Ways and Means of Advances: Features and Implications.

**Unit – 4 Black Money in India (Parallel Economy in India)**

The Parallel Economy in India – Factors Responsible for the Generation of Black Money – Black Money in India – Measures Taken by the Government to Unearth Black Money – Suggestion to Eliminate Black Money.

**Block – II Indian International trade and Balance of Payments**

**Unit – 5 India's Foreign Trade**

Indian Foreign Trade – Importance of Foreign Trade for a Developing Economy – Foreign Trade Since Independence – Compositions of India's Foreign Trade – Direction of India's Foreign Trade.

**Unit – 6 Export and Import Policies**

Foreign Trade Policy and Economic Development in India – Import Policy in the Pre-Reform Period – Brief Evolution of Import Policy – Export Policy in the Pre-Reform period – Brief Evolution of Export Policy – Import Export Policy in the Post Reform Period - Main Features of EXIM Policy in the Post Reform Period.

**Unit – 7 India's Balance of Payments**

Balance of Payments – Meaning – Trends in Balance of Payments and Balance of Trade – Trends in Invisibles and Others - Causes for In-Equilibrium in India's Balance of Payments – Financing Deficit in the Pre Reform Period and Post Reform Period – Emerging Issues in the Balance of Payment Management.

**Unit – 8 Foreign Exchange Rate**

Exchange Rate: Meaning – Exchange Rate Policy an Overview - Exchange Rate Management during the Pre-Reform Period – Exchange Rate Management – Its

Significance in the Post Reform Period – Foreign Exchange Rate Management - Major Developments India's Foreign Exchange Reserves – Foreign Exchange Management Act (FEMA).

### **Block – III    Multinational Corporation (MNCs) and International Trade Institutions**

#### **Unit – 9        Foreign Capital and MNCs**

Role of Foreign Capital – Indian Government Policy Towards Foreign Capital – Dangers Associated with Foreign Capital – Foreign Private Investment – Merits and Demerits – Multinational Companies – MNCs and India – Regulations of Multinational Corporations – Merits and Demerits of Multinational Corporation.

#### **Unit – 10      WTO and India**

The Uruguay 8<sup>th</sup> Round of Negotiations – Its Implications for India – Impact of WTO on Various Aspects of Indian Economy – WTO - Subsidies and Agriculture - Special Economic Zones (SEZs) – An Overview – Some Recent Development in the Evolutions of SEZ Policy.

#### **Unit – 11      Rationale of Internal and External Reforms**

Internal and External Reforms – A Conceptual Framework – Rationale for Economic Reforms – Components of Economic Reforms – Internal Reforms – an Outline – External Reforms – A Brief Implications of Economic Reforms – Impact of Economic Reforms.

#### **Unit – 12      Globalisation and Indian Economy**

Globalisation – Conceptual Clarity – Globalisation Process and India – Globalisation and Agriculture – Globalisation and Industry – Globalisation and Foreign Trade – Globalisation and Governance – Globalisation and Competition – Globalisation and Safety Nets.

#### **References:**

01. S.K Misra and V.K Puri(2008) Indian Economy Himalaya Publishing House, Delhi.
02. Ruddadrrth & K.P.M Sundram (1996) Indian Economy- S Chand & Company Ltd New Delhi.
03. A N Agrawal (1975) Indian Economics (Problems of Development & Planning) New Delhi.
04. Ishwar C Dhinges (2012) The Indian Economy Environmental and Policy- Sultan & Sons, New Delhi.
05. Rajkamal Sen, Biswjit Chatterjee-Indian Economy, Deep and Deep Publications. New Delhi.
06. Shankaran (2004) Indian Economy.
07. Hanson James A., and Sanjay Kathuria (Ed), India-A Financial Sector for the Twenty-First Century, World Bank, Oxford University Press, New York.
08. Kapila Uma, Understanding the Problem of Indian Economy, Academic Foundation, New Delhi.
09. Kapila Uma, Indian Economy since Independence, Academic Foundation, New Delhi.
10. NCAER, Economic and Policy Reforms in India, National Council of Applied Economic Research, New Delhi.

11. Vaidyanathan A, India's Economic Reforms and Development, Academic Foundation, New Delhi.
12. Government of India, Economic Survey Reports, Ministry of Finance, New Delhi.
13. Planning Commission, Five Year Plan Drafts, (6th to 12th Plan) New Delhi.
14. Reserve Bank of India, Report on Currency and Finance, Mumbai.

## **Karnataka State Open University, Master of Arts in Economics, Semester - IV**

### **Course – SC4.2B: WELFARE ECONOMICS-II**

- **Objectives:** To enable the students to understand the importance of welfare Economics.
- **Pedagogy:** A combination of Lectures, Group Discussion, Assignments, etc.
- Credits: 3
- Examination Duration: 3 hours and Maximum Marks:100

#### **Course Inputs**

#### **Block I - Welfare and Efficiency**

##### **UNIT: 1 External Economies and Diseconomies**

Meaning, Optimal resource allocation in a competitive market, competitive model with external economies Effects of externalities on allocation of resources – Mead's analysis of external economies and diseconomy – unpaid factors – criteria of atmosphere.

##### **UNIT : 2 Welfare and Efficiency**

Concept of Welfare – Criteria of Social welfare – Bentham's Criteria – Cardinalist Criteria – Pareto optimality criteria–Kaldor Hicks criteria. Efficiency- Concept, Efficiency criteria – efficiency in production–efficiency in allocation of factors among commodities (Efficiency in the product mix or composition of output).

##### **UNIT: 3 Theoretical Measures of Economic welfare**

Measures of Economic welfare, national and per capital income, economic welfare, sustainable economic welfare, index of economic well-being, earned income, taxes, Intra family transfers- Non- Market Activities and leisure times

##### **UNIT: 4 The Empirical Measures of Economic welfare**

Consumers surplus as a measure, pareto principle, compensation principle, aggregate surplus measures, economic opportunity, standardizing by family size, components of economic welfare, net worth.

#### **Block II - Welfare and Economic Progress**

**UNIT: 5      The Distribution of Economic welfare**

The Distribution of Economic Welfare -Presentations of results- income poverty- country experience- Canada, Poland, Russia, India, cash components of economic welfare, demographic characteristics and economic welfare

**UNIT:6      Increasing Returns and Economic Progress**

Economic progress and Economic return – concept of increasing returns – Buchanan’s increasing returns multiplier – Implications for economics progress – productivity game – taxes and subsidies.

**UNIT: 7      Interdependent Utilities and Interdependences of Investment Functions**

Interdependent Utilities - A functional representation – welfare economics and inter dependent utility – Empirical studies - Interdependence of Investment Decisions.

**UNIT : 8      Optimum Tariff Structure**

Meaning – Effects – Optimum tariff – determination of Optimum tariff.

**Block III -      Policy Implications and Welfare Measures**

**UNIT : 9      Pricing of Public Utility Undertaking**

Meaning and nature of public utility undertaking, Government provision for Public utilities – Objectives of Pricing Policy – Principles of Pricing.

**UNIT : 10      Utility Strategy and social decision rules**

Meaning – Utility Strategy and Social decision rules – Evaluation.

**UNIT : 11      Conceptualizing welfare efficiency relationship**

Meaning, Welfare and Efficiency issue - Output- Taxation relationship- policy implications of output tax curve ,taxation and Public expenditure - relation to aggregate demand.

**UNIT : 12      Policy Implications and future Directions**

Significance of the welfare measure- welfare measure in future decision, calculating economic welfare for young families, Benefits from government programmes for the aged.

**References :**

1.Kunde K B (1971): Welfare Economics: an introductory analysis, Navabharat publication,New Delhi.

2.Little I M D (1950): A Critique of welfare Economics, Oxford university press U.K.

3. Graaff J.D.V (1968), Theoretical welfare Economics Cambridge University press U.K.
4. K.J. Arrow (1951); Social choice and Individual values Yale University press, USA.
5. H.L. Ahuja (2014); Advanced Economic Theory S. Chand & Co. New Delhi.
6. Koutsoyiannis A (1982); Modern Micro Economics Mc Millan U K
7. AC Pigou (1920); The Economics of welfare Macmillan and Co. U K
8. D Macrice (1969); welfare Economics and the Economics of socialism Macmillan and U.K.
9. Robert Dekachman (1976); A History of economic ideas, McGraw Hill publication New Delhi.
10. Scitovsky, Tibor (1958), Two concepts of external economics "Journal of political Economy" Vol No. 17, University of Chicago press (US).

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## **Question Paper Pattern for Semester-end Examinations**

Each Question Paper shall be divided into three Sections Viz., Section – A Section – B & Section – C.

### **Section – A**

- Maximum Marks: 20,
- Four Questions shall be answered out of Six Questions,
- Each Question carries five marks, and
- Answer to each theory Question shall be in not more than two pages.

### **Section – B**

- Maximum Marks: 30,
- Three Questions shall be answered out of Five Questions,
- Each Question carries ten marks, and
- Answer to each theory Question shall be in not more than five pages.

### **Section – C**

- Maximum Marks: 30,
- Two Questions shall be answered out of Four Questions,
- Each Question carries fifteen marks, and
- Answer to each theory Question shall be in not more than six pages

### **Note:**

**01. Basic Calculators are allowed in the examination**

**Skill Enhancement Courses for the Students of Economics  
Department**

**Skill Enhancement Course – SEC-3.1: Computer Fundamentals to  
Economics-I**

(to be offered for III-Semester Students of Economics Departments)

- **Objective:** To enable the students to understand the principles and practice of computer fundamentals.
- **Pedagogy:** A Combination of Lectures, Group Discussion, Project Assignments etc.
- **Credits:** 2 ; Examination Duration: 1½ and Maximum Marks: 50 (Internal Assessment Marks = 10 and Semester-end Examination =40)

**Course Inputs**

**Block I: Introduction and Operating System**

**Unit - 1: Fundamentals to Computer**

Basic Components of Computer – CPU – Input Output Devices: Keyboard, Mouse and Scanner, Video Display, Printers and Plotters, Data Storage and their Applications.

**Unit -2: Computer Networking**

Introduction – Hardware –Software and Firmware, Floppy Disk and CD ROM; Software and Firmware, Concept of Data, Information, LAN, MAN and Internet-Uses and Abuses of Internet.

**Unit - 3: Operating System**

Introduction to Operating System, Types of Operating System (Windows XP), MS Office Utilities, Components of the Windows Operating System (Desktop, Different type of Menu, Taskbar, Control Panel, Accessories),

**Unit - 4: Spreadsheet (MS Excel)**

Introduction to Spreadsheet (MS Excel) Basic, Function, MS-Chart, Sorting and Filtering of Data, MS-Word, MS-PowerPoint

**Block-II: Data Representation and Applications of Statistical Methods**

**Unit - 5: Data Representation**

Introduction-Types -Data Representation, Tables, Charts and Graphs-Time and Frequency Series-Descriptive Statistics, Generating Graphs – Histogram, Pie Charts, Bar-Graphs.

**Unit – 6: Calculation of Mean and Variance**

Introduction-Various Methods of Calculation of Central Values and Measures of Dispersion

**Unit - 7: Calculation of Correlation and Regression**

Introduction and Calculation of Correlation and Simple and Multiple Regression Analysis

**Unit - 8: Statistical Packages and Data Base**

Application of SPSS for Statistical and Econometric Analysis, Database in Indian Economy – Collection of Data through Census –CSO, NSSO, CMIE reports

**Reference:**

01. Rajasekaran, S. (1986), Numerical Methods in Science and Engineering.
02. A. H. Wheeler,Allahabad Sanders D.H (1988) Computer Today, McGraw Hill ( 3rd Edition), New York.
03. Sinha P.K. (1992), Computer Fundamentals , BPB Publications, New Delhi.
04. Rajaraman, V. (1996), Fundamentals of Computers, Prentice Hall of India, New Delhi.
05. Dass and Singh (2006): Introduction to Computers, Shree Publishers and Distributors, New Delhi.
06. Lipschultz, M.M and S. Lipschultz (1982), Theory and Problems of Data Processing, Schaum’s Outline Series, McGraw Hill,New York.
07. Intrilligator, M.D (1978), Econometric Models, Econometrics and Applications, Prentice Hall Hanglowood Cliffs.
08. Wood, M.B. (1983), Introducing Computer Security, Broadman Associates, New Delhi.
09. Sanders, D.H. (1988): computers Today, McGraw Hill, New York.

**Skill Enhancement Course – SEC-4.1: Computer Fundamentals to Economics -II**

(to be offered for IV-Semester Students of Economics Departments)

- **Objective:** To enable the students to understand the practical knowledge of computer fundamentals.
- **Pedagogy:** A Combination of Lectures, Group Discussion, Project Assignments etc.
- **Credits:** 2 ; Examination Duration: 1½and Maximum Marks: 50 (Internal Assessment Marks = 10 and Semester-end Examination =40)

**Course Inputs**

**Block I: Introduction and Operating System**

**Unit - 1: Fundamentals to Computer**

Basic Components of Computer – CPU – Input Output Devices: Keyboard, Mouse and Scanner, Video Display, Printers and Plotters, Data Storage and their Applications

**Unit -2: Computer Networking**

Introduction – Hardware –Software and Firmware, Floppy Disk and CD ROM; Software and Firmware, Concept of Data, Information, LAN, MAN and Internet-Uses and Abuses of Internet.

**Unit - 3: Operating System**

Introduction to Operating System, Types of Operating System (Windows XP), MS Office Utilities, Components of the Windows Operating System (Desktop, Different Type of Menu, Taskbar, Control Panel, Accessories).

**Unit - 4: Spreadsheet (MS Excel)**

Introduction to Spreadsheet (MS Excel) Basic, Function, MS-Chart, Sorting and Filtering of Data, MS-Word, MS-PowerPoint.

**Block-II: Data Representation and applications of Statistical Methods**

**Unit - 5: Data Representation**

Introduction-Types -Data Representation, Tables, Charts and Graphs-Time and Frequency Series-Descriptive Statistics, Generating Graphs – Histogram, Pie Charts, Bar-Graphs.

**Unit – 6: Calculation of Mean and Variance**

Introduction-Variou Methods of Calculation of Central Values and Measures of Dispersion.

**Unit - 7: Calculation of Correlation and Regression**

Introduction and Calculation of Correlation and Simple and Multiple Regression Analysis.

**Unit - 8: Statistical Packages and Data Base**

Application of SPSS for Statistical and Econometric Analysis, Database in Indian Economy – Collection of Data Census –CSO, NSSO, CMIE Reports

**References:**

1. Rajasekaran, S. (1986), Numerical Methods in Science and Engineering ,
2. A. H. Wheeler,Allahabad Sanders D.H (1988) Computer Today, McGraw Hill ( 3rd Edition), New York
3. Sinha P.K. (1992), Computer Fundamentals , BPB Publications, New Delh
4. Rajaraman, V. (1996), Fundamentals of Computers, Prentice Hall of India, New Dilhi
5. Dass and Singh (2006): Introduction to Computers, Shree Publishers and Distributors, New Delhi.
6. Lipschultz, M.M and S. Lipschultz (1982), Theory and Problems of Data Processing, Schaum’s Outline Series, McGraw Hill,New York
7. Intrilligator, M.D (1978), Econometric Models, Econometrics and Applications, Prentice Hall. Hanglowood Cliffs, Wood, M.B. (1983), Introducing Computer Security, roadman Associates, New Delhi
8. Sanders, D.H. (1988): computers Today, McGraw Hill, New York

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**Question Paper Pattern for Skill Enhancement Courses – SEC3.1 : Computer Fundamentals to Economics - 1 and SEC4.1: Computer Fundamentals to Economics - I**

- Duration: 1  $\frac{1}{2}$  hours,
- Maximum Marks: 40,
- Students shall answer 5 questions out of 8 questions, and
- Each question carries 8 marks.

# Annexure I

## INTER- DISCIPLINARY COURSE (Open Elective) for First Semester

### ವಿಭಾಗ- ಕನ್ನಡ

**ಪತ್ರಿಕೆ-೬: ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಇತಿಹಾಸ EL 1.1 (ಕ್ರೆಡಿಟ್-೩)**

**ಬ್ಲಾಕ್-೧೯: ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಮುಖ್ಯ ಘಟ್ಟಗಳು**

**ಘಟಕ-೨೩:** ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಹಿನ್ನೆಲೆ ಮತ್ತು ಪ್ರೇರಣೆಗಳು.

**ಘಟಕ-೨೪:** ನವೋದಯ ಪೂರ್ವ, ನವೋದಯ- ಬಿ.ಎಂ.ಶ್ರೀ., ಕುವೆಂಪು, ದ.ರಾ.ಬೇಂದ್ರೆ, ಶಿವರಾಮಕಾರಂತ, ಮಾಸ್ತಿವೆಂಕಟೇಶ್ ಅಯ್ಯಂಗಾರ್, ಕೆ.ಎಸ್. ನರಸಿಂಹಸ್ವಾಮಿ.

**ಘಟಕ-೨೫:** ಪ್ರಗತಿಶೀಲ ಮತ್ತು ನವ್ಯ: ಅನಕೃ, ಕಟ್ಟೀಮನಿ, ನಿರಂಜನ, ಚದುರಂಗ, ವಿ.ಕೃ. ಗೋಕಾಕ, ಅಡಿಗ, ಜಿ.ಎಸ್. ಶಿವರುದ್ರಪ್ಪ, ಶಾಂತಿನಾಥ ದೇಸಾಯಿ, ಅನಂತಮೂರ್ತಿ, ಯಶವಂತ ಚಿತ್ತಾಲ, ಲಂಕೇಶ್, ತೇಜಸ್ವಿ, ವೈದೇಹಿ, ವೀಣಾ ಶಾಂತೇಶ್ವರ, ವಿಜಯಾದಿಪ್ಪೆ.

**ಘಟಕ-೨೬:** ಬಂಡಾಯ ಮತ್ತು ದಲಿತ:

ಬರಗೂರು ರಾಮಚಂದ್ರಪ್ಪ, ಬಿ.ಟಿ. ಲಲಿತಾನಾಯಕ, ಸಾರಾ ಅಬೂಬಕ್ಕರ್, ದೇವನೂರು ಮಹಾದೇವ, ಸಿದ್ದಲಿಂಗಯ್ಯ, ಅರವಿಂದ ಮಾಲಗತ್ತಿ, ಮೊಗ್ಗಿ ಗಣೇಶ್.

**ಬ್ಲಾಕ್-೨೦: ಆಧುನಿಕ ಕನ್ನಡ ಕಾವ್ಯ ಮತ್ತು ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು**

**ಘಟಕ-೨೨:** ಕಾವ್ಯ ಪ್ರಕಾರಗಳು: ಭಾವಗೀತೆ, ಸುನೀತ, ಶೋಕಗೀತೆ, ಪ್ರಗಾಥ.

**ಘಟಕ-೨೪:** ಕಥನ ಕಾವ್ಯ, ಖಂಡ ಕಾವ್ಯ, ಮಹಾಕಾವ್ಯ.

**ಘಟಕ-೨೯:** ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು: ಕಥೆ, ಕಾದಂಬರಿ, ನಾಟಕ ಜೀವನ ಚರಿತ್ರೆ.

**ಘಟಕ-೪೦:** ಲಲಿತ ಪ್ರಬಂಧ, ಆತ್ಮಕತೆ, ಪ್ರವಾಸ ಸಾಹಿತ್ಯ, ಸಂಪಾದನೆ, ವಿಚಾರ ಸಾಹಿತ್ಯ, ವಿಜ್ಞಾನ ಸಾಹಿತ್ಯ

### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು

೧. ಹೊಸಗನ್ನಡ ಸಾಹಿತ್ಯ: ಎಲ್.ಎಸ್. ಶೇಷಗಿರಿರಾವ್, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್, ಬೆಂಗಳೂರು, ೧೯೯೨

೨. ಯುಗಧರ್ಮ ಮತ್ತು ಸಾಹಿತ್ಯ ದರ್ಶನ: ಕೀರ್ತಿನಾಥ ಕುರ್ತಕೋಟಿ, ಮನೋಹರ ಗ್ರಂಥ ಮಾಲೆ, ಧಾರವಾಡ, ೧೯೯೧

೩. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಇತಿಹಾಸ: ರಂ.ಶ್ರೀ. ಮಗುಳಿ, ಗೀತಾ ಬುಕ್ ಹೌಸ್, ಮೈಸೂರು, ೨೦೧೮

೪. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಸಂಗಾತಿ: ಕೀರ್ತಿನಾಥ ಕುರ್ತಕೋಟಿ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಹಂಪಿ, ಹೊಸಪೇಟೆ, ೧೯೯೫

೫. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಸಂಗಾತಿ: (ಪ್ರಸಂ) ಬರಗೂರು ರಾಮಚಂದ್ರಪ್ಪ, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ೨೦೧೮

೬. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ: ತ.ಸು. ಶಾಮರಾಯ, ತಳುಕಿನ ವೆಂಕಣ್ಣಯ್ಯ ಸ್ಮಾರಕ ಗ್ರಂಥಮಾಲೆ, ಮೈಸೂರು, ೨೦೧೪

೭. ಹೊಸಗನ್ನಡ ಕಾವ್ಯ ಪ್ರಕಾರಗಳು: ಪ್ರಧಾನ ಸಂಪಾದಕರು, ಎ.ರಂಗಸ್ವಾಮಿ, ಲೇ. ಮ. ರಾಮಕೃಷ್ಣ, ಪ್ರಸಾರಂಗ, ಕರಾಮುವಿ, ಮೈಸೂರು, ೨೦೧೦

೮. ಆಧುನಿಕ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು: ಪ್ರಧಾನ ಸಂಪಾದಕರು, ಎ. ರಂಗಸ್ವಾಮಿ, ಲೇ. ಡಾ. ಜಿ.ಆರ್. ತಿಪ್ಪೇಸ್ವಾಮಿ, ಪ್ರಸಾರಂಗ, ಕರಾಮುವಿ, ಮೈಸೂರು, ೨೦೧೦

## DEPARTMENT - ENGLISH

### EL-1.1: INTER- DISCIPLINARY COURSE-I (OPEN ELECTIVE)

#### INDIAN LITERATURE-I

#### OBJECTIVES

- To help to understand the contribution of Kalidasa to Sanskrit drama as a playwright
- To create an awareness of the importance of Shakuntala and Mrichhakatika as classical Indian texts
- To evaluate Lord Macaulay and Raja Ram Mohan Roy writers of English Prose.
- To introduce the role of Autobiographies in Indian writing in English

#### BLOCK -I

**Kalidasa:** Shakuntala

**Shudraka:** Mrichhakatika

#### BLOCK -II

**Jawaharlal Nehru:** An Autobiography

**Ram Mohan Roy:** Letter to Lord Amherst

**Macaulay:** Minutes on Indian Education

**Vivekananda:** Address to the Parliament of Religions

#### Suggested Reading:

- **M.K.Naik:** Critical Essays on Indian Writing in English. Sahitya Akademi, 1969.
- **Narasimhaiah. C.D:** The Swan and the Eagle. Indian Institute of Advanced Study, 1987.
- **Meenakshi Mukherjee:** The Twice Born Fiction. Heinemann Educational Publishers, 1972.

- **Chirantan Kulshrestha.** Contemporary Indian English Verse: An Evaluation. Arnold-Heinemann, 1981.

## DEPARTMENT - HINDI

### व्यावहारिक हिंदी एवं व्याकरण

#### वर्ण विचार

- वर्ण
- स्वर और उसका वर्गीकरण
- व्यंजन और उसका वर्गीकरण
- वर्णों का उच्चारण स्थान
- संधि
- समास

#### शब्द विचार

- शब्द के भेद
- अर्थ के आधार पर शब्द भेद
- व्युत्पत्ति के आधार पर शब्द भेद
- रचना के आधार पर शब्द भेद
- प्रयोग के आधार पर शब्द भेद
- विकारी और अविकारी शब्द भेद
- अव्यय
- संज्ञा और उसके भेद
- वचन- उसके भेद, वचन परिवर्तन के नियम
- लिंग- उसके भेद, लिंग परिवर्तन के नियम
- काल और उसके भेद
- कारक और विभक्ति- उसके प्रकार,
- सर्वनाम और उसके भेद
- विशेषण और उसके भेद
- क्रिया और उसके भेद
- क्रिया विशेषण और उसके भेद
- समुच्चय बोधक और उसके भेद
- संबंधबोधक और उसके भेद

- विस्मयादिबोधक और उसके भेद
- परसर्ग और उपसर्ग
- वाच्य और उसके प्रकार

### वाक्य विचार

- वाक्य का अर्थ और परिभाषा
- वाक्य के प्रकार .... आदि

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## DEPARTMENT - TELUGU

### E. L. 1.1 Thilak Prathyeka Adhyayanam

#### Block - 1:Thilak Kavithvam - 1

Unit - 1:Amrutham Kurisina Raathri

Unit - 2:Thilak Padhya Kavithaa Vaibhavam

Unit - 3:Thilak Abhiruchulu - Alavaatlu

Unit - 4: Thapala bantrothu

#### Block - 2: Thilak Kavithvam

Unit - 1:Thilak Sahithya Parichayam - 1

Unit - 2: Thilak Sahithya Parichayam - 2

Unit - 3:Thilak vachana kavithaa Vaibhavam - 1

Unit - 4: Thilak Vachana Kavithaa Vaibhavam – 2

## DEPARTMENT - HISTORY

### ANCIENT WORLD CIVILIZATIONS

(Egypt, Mesopotamia, Greek, Roman, Inca, Chinese)

**Objective:** The course is aims to understand major world civilizations. It is to provide a global historical perspective of ancient world which special reference to Egypt, china, Greek, Roman, Inca civilizations.

**Pedagogy:** personal contact programmes, audio video programmes, online lectures  
Assignments, etc

**Credits:** 2.

**Examination Duration:** 11/2 hours and Maximum Marks:40

**Course outcomes:**

After completing this course the students should be able to

- Discuss the Egyptian and Mesopotamian civilizations.
- Analyse the political socio economic conditions of Greek Roman civilizations.
- Evaluate the Chinese contributions to ancient world.

#### Block – I

##### Unit-1

Egyptian Civilization: Importance of the Nile, Geographical importance, Gift of Nile, Political conditions.

##### Unit-2

Social, Economic and religious conditions, Literature and learning, arts and architecture.

##### Unit-3

Mesopotamian Civilization, Sumer and Babylonian, Hammurabi's code, Society and Culture, Economic conditions, art and literature, Assyrian Empire.

##### Unit - 4

Greek Civilization, Political Organizations, the city, State, Alexander the Great, Greek political theory, Religion, Philosophy, art and architecture, Characteristic of Hellenistic Civilization.

#### Block – II

##### Unit - 5

Roman Civilization, The Land and the people, the Government, Roman Republic, Roman Empire, Roman Republic, The Empire, The Patricians and Plebeians, Punic wars.

### **Unit – 6**

Julius Caesar, his wars, fall Augustus Caesar, Social Economic Conditions, Roman art and architecture.

### **Unit - 7**

Painting, Sculpture, Roman Law, Roman Religion, Philosophy, Roman literature, Decline of the Roman Empire.

### **Unit - 8**

Inca Civilisation, Socio – economic Political conditions, Chinese Civilisation, Socio – economic Political conditions.

### **Suggested readings:**

1. Breasted, J.H. : Ancient Times, A History of the early world.
2. Rostovzeff, M.S. : History of Ancient World
3. Schvidler, H. : The History of Civilization
4. Swain, J.E. : A History of World Civilization
5. Breasted, J.H. : History of Egypt
6. Jastrow, M. : The Civilization of Babylonia and Austria
7. Bury, J.E. & OTHERS: The Hellenistic Age
8. Bailey, C. : The Legacy of Rome and others
9. Abot, F.F.: Society and Politics of Ancient Rome

## **DEPARTMENT - POLITICAL SCIENCE**

### **(OEL-I) Local Government in India**

#### **Block-I**

Unit:1 Meaning, Nature and Scope of Local Governments.

Unit:2 Evolution of Panchayat Raj Institution in India.

- a) Constituent Assembly and Village Panchayat.
- b) Balavanth Roy Mehta Committee Report
- c) Ashok Mehta Committee Report.
- d) G.V.K. Rao Committee Report.

Unit:3 Constitutional Amendments and Panchayat Raj Institutions:

- a) Basis of Constitutional Amendment.
- b) 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendment.
- c) Karnataka Panchayat Raj Act of 1983.
- d) Karnataka Panchayat Raj Act of 1993.

Unit:4 Zilla Panchayat: Structure, Functions and Sources of Revenue.

#### **Block-II**

Unit:5 Taluk Panchayat : Structure, Functions, Executive Officer, Powers and Functions.

- Unit:6 Gram Panchayat: Gram Sabha, Ward Sabha: Structure, Functions and Sources of Revenue.
- Unit:7 Panchayat Development Officer and Secretary: Powers and Functions.
- Unit:8 Role of Panchayat Raj Institutions in Development (with Reference to Karnataka)
- a) Panchayat Raj in Rural Development.
  - b) Social Change: Empowerment of the Weaker Sections.

**References:**

1. Verma B. M, Social justice and Panchayath Raj
2. Mutarib-M.A. and Others, Theory of Local Government,
3. Dr. Arjun darshankar, Panchayath Raj aani Nagari.
4. V. B. Patil, Pancayath Raj.
5. A.N. Kulkarni, Bharatiya Sthanik Swashasan,
6. Shantaram Bhosale, Bharatiya Sthanik Shasan,
7. Kikherji. S, Essays on Rural Development.
8. Balaramu. C. H. Administration of Anty Poverty Programmes.
9. 73<sup>rd</sup> Constitutional Amendment Act, Government of India, 1993.
10. Karnataka Panchayatraj Acts, 1985, 1995.

## **DEPARTMENT – PUBLIC ADMINISTRATION**

### **INDIAN POLITY – I**

**BLOCK – 1**

- UNIT – 1 Indian Constitution. .
- UNIT – 2 Preamble - Meaning and Importance.
- UNIT – 3 Fundamental Rights and Duties.
- UNIT – 4 Directive Principles of State Policy and Relation with Fundamental Rights.

**BLOCK – 2**

- UNIT – 5 Indian Federalism and Parliamentary system of Government.
- UNIT – 6 Centre - State Relations. Legislative Administrative and Financial
- UNIT – 7 Union Executive - President Elections, Powers and Positions. .
- UNIT – 8 Council of Ministers and Prime Ministers - Powers and Functions

## **DEPARTMENT - SOCIOLOGY**

### **Invitation to Sociology**

( 02 Credits )

#### **Course Description**

This course introduces learners to the basic concepts of sociology. It is particularly designed to orient the learners from interdisciplinary background about the essence of sociology and intends to inculcate sociological imagination.

### **Course Objectives**

- To introduce the learner to the basic concepts and processes of sociology
- to comprehend the structural and organizational aspects of society
- to examine the process of social change

### **Learning Outcomes and Competencies**

After successfully completing the course, following outcomes and competencies are possible among the learners. Learner will have/can

- Conceptual precision and clarity about the basic sociological concepts
- Develop sociological imagination and apply to analyze the contemporary events
- explain major social processes of society
- analytical view about Indian social structure
- explicate major process of social change and can conceptualize the changing aspects of Indian society

### **Course Contents**

#### **Block-1 Basic Concepts and Processes**

Unit-1 Emergence of Sociology-Factors and Early Thinkers-Sociological Imagination  
Unit-2 Society, Community- Associations and Institutions- Culture and Socialization  
Unit-3 Social System, Structure and Function  
Unit-4 Social Processes-Cooperation, Competition, Conflict, Accommodation and Assimilation

#### **Block-2 Social Organization and Social Change**

Unit-5 Caste and Class System-Changes in Caste  
Unit-6 Social Mobility and Types  
Unit-7 Factors of Social Change  
Unit-8 Process of Social Change in India (Sanskritization, Westernization, Modernization and Globalization)

### **References**

1. Berger, Peter L. 1978. An Invitation to Sociology, Allen and Unwin, London. Davis, Kingsley. Human Society, Macmilan, New Delhi.
2. Dumont, Louis, 1988, Homo Hierarchicus. Oxford University Press. Giddens, Anthony. 2009. Sociology. Politi Press, Malden.
3. Inkles, Alex. 2002. What is Sociology, Prentice Hall India, New Delhi. Jayaram, N, 1990, Introductory Sociology, Macmilan, New Delhi.

4. Johnson Harry M., 2011: Sociology: A Systematic Introduction: Allied Publishers, New Delhi.
5. MacIver, R.M and C.H. Page. Society - Introduction to Sociology, Macmilan, New Delhi
6. Samuel, Koenig. 1957. Sociology: An Introduction to Science of Society, Barnes & Nobel Books, London.
7. Singh, Yogendra. 1993: Social Change in India: Crisis and Resilience, Har-Anand, New Delhi.

## **DEPARTMENT – ANCIENT HISTORY AND ARCHEOLOGY**

AHA  
OE 1.1

### **World Heritage Sites of India**

**Block - 1**

**Introduction**

- Unit - 1 Nature - Scope - Criteria for incorporation of World Heritage sites
- Unit - 2 Types of World Heritage sites in India

**Block - 2**

**Archaeological and Cave Heritage sites**

- Unit - 3 Bimbetka - Sanchi- Nalanda – Champaner - Dholavira
- Unit – 4 Ajanta – Ellora - Elephant

**Block - 3**

**North Indian World Heritage Sites**

- Unit – 5 Bodh Gaya — Kajuraho–Konarak–Rani kivav– Jaipur,
- Unit – 6 Agra Fort – Red Fort - FathepurSikri–Taj Mahal – Humayun’s Tomb –  
Ahamadabad, Qutub Minar

**Block - 4**

**South Indian World Heritages Sites**

- Unit – 7 Mahabalipuram – Pattadakallu – Chola temples
- Unit - 8 Monuments of Hampi – Churches and Convents of Old Goa – Ramappa Temple

References:

1. Marco Canneo, Jasmina: The world heritage sites of UNESCO – The Treasure of Art
2. ASI: World Heritage Sites Series
3. Individual guide: Books on respective city Individual

## **DEPARTMENT - EDUCATION**

### **IDC – 1 FOUNDATIONS OF EDUCATION**

#### **BLOCK-1 FOUNDATIONS OF EDUCATION – I**

- Unit-1 Philosophical Foundations
- Unit-2 Basic Concepts of Philosophy
- Unit-3 Psychology as a Science
- Unit-4 Basic Concept in Psychology related to Education

#### **BLOCK-2 FOUNDATIONS OF LEARNING – II**

- Unit-5 Sociological bases of Education
- Unit-6 Educational Issues in Indian Society
- Unit-7 Cultural and Historical Foundations
- Unit-8 Political and Economic bases of Education

#### **References:**

1. Harison and Myers (1970), Education, Manpower and Economic Growth, McGrothill, Oxfords, IBH Publishing Co., New Delhi.
2. Kamala Bhatia & Baldev Bhatia, (1974) The Philosophical and Sociological Foundations of Education, Doaba House, New Delhi.
3. Bhatia B.D, (1974), ‘Theory and Principles of Education, Doaba House, Delhi’.
4. Sorokim .P, (1947) ‘Society, Culture and Personality’, Harper and Brothers Publishers, New York.

## **DEPARTMENT – COMMERCE**

### **EL1.1: Personal Financial Planning**

**Objective:** To enable the Students to understand about the different Investment Avenues, Saving Schemes designed by various agencies particularly for the individuals.

**Pedagogy:** A Combination of Lectures, Group Discussion, Assignments.

**Credits:** 2

**Examination Duration:** 1<sup>1</sup>/<sub>2</sub> and Maximum Marks: 50

(**Internal Assessment Marks** = 10 and Semester-end Examination =40)

## Course Inputs

### Block I

- **Unit -1: Introduction to Financial Planning:** Introduction - The Process Financial Planning – Client Interactions – Time Value of Money Applications – Personal Financial Statements – Cash Flow and Debt Management – Planning to Finance Education.
- **Unit -2: Financial Planning Process:** Introduction - Setting Goals – Informal Budget Preparation – Investment Opportunities – Financial Vs Physical Investments – Role of a Financial Planner.
- **Unit -3: Savings Plans:** Introduction - Setting Goals – Savings Instruments – Savings Plan – Tax Savings Schemes.
- **Unit -4: Investment Planning:** Introduction - Risk Return Analysis – Mutual Fund – Derivatives – Asset Allocation – Investment Strategies and Portfolio Construction and Management.

### Block II

- **Unit -5: Risk Analysis and Insurance Planning:** Introduction - Risk Management and Insurance Decision in Personal Financial Planning – Various Insurance Policies and Strategies for General Insurance – Life Insurance – Motor Insurance – Medical Insurance.
- **Unit -6: Retirement Planning and Benefits:** Introduction - Retirement Need Analysis Techniques – Savings and Investment Plans for Retirement – Employee Provident Fund – Public Provident Fund – Superannuation Fund – Gratuity – Annuity Plans.
- **Unit -7: Tax Planning:** Introduction - Income-tax Computation for Individuals – Companies - Trust and other bodies – Statutory Provisions Pertaining to Capital Gains and Indexation – House Property – Deduction and Allowances.
- **Unit -8: Health Financing:** Introduction - Health Financing Models – Financing of Health in India – National Rural Health Mission – Challenges of Access to Health Care and Service Quality – Health Insurance Mechanism & Financial Protection.

### Books Recommended for Reference

01. Khan M.Y, Financial Services, Tata MacGraw Hill.

02. Singhanar V.K, Students' Guide to Income Tax, Taxmann.
03. Ranganathan and Madhuamathi, Investment Analysis and Portfolio Management, Pearson Publications.
04. Gordon and Natarajan, Emerging Scenario of Financial Services, Himalaya Publishing House.
05. George Rejda, Principles of Risk Management and Insurance, Pearson.

## **DEPARTMENT - MANAGEMENT**

### **COURSE: OE-1 : Disaster Management - Credit: 2**

#### **MBAS 459: DISASTER MANAGEMENT**

Objectives	: The course aims at familiarizing the students with the concepts of disaster management, need for disaster management and its relevance.
Pedagogy	: Lectures, assignments, Industrial visits and practical exercises, discussions.

1. Understanding Disasters · Meaning, nature, characteristics and types of Disasters, Causes and effects, Disaster: A Global View, Disaster Profile of India, The Disaster Management cycle.
2. Geological and Mountain Area Disasters · Earthquakes · Volcanic Eruption · Landslides Snow Avalanches, Wind and Water Related Natural Disaster · Floods and Flash Floods · Droughts · Cyclones · Tsunamis, Man Made Disasters · Understanding Man-Made Disasters · Fires and Forest Fires · Nuclear, Biological and Chemical disaster · Road Accidents
3. Introduction to disaster Preparedness · Disaster Management: Prevention, Preparedness and Mitigation · Disaster Preparedness: Concept & Nature · Disaster Preparedness Plan · Disaster Preparedness for People and Infrastructure · Community based Disaster Preparedness Plan
4. Roles & Responsibilities of Different Agencies and Govt. · Roll of Information, Education, Communication & Training · Role and Responsibilities of Central, State, District and local administration. · Role and Responsibilities of Armed Forces, Police, Para Military Forces. Role and Responsibilities of International Agencies, NGO's, Community Based Org. (CBO's)
5. Technologies for Disaster Management · Role of IT in Disaster Preparedness · Remote Sensing, GIS and GPS · Use and Application of Emerging Technologies · Application of Modern Technologies for the Emergency communication. · Application and use of ICST for different disasters.
6. Disaster Mitigation · Disaster Mitigation: meaning and concept · Disaster Mitigation Strategies · Emerging Trends in Disaster Mitigation · Mitigation management · Role of Team and Coordination
7. Disaster Management in India Disaster Profile of India – Mega Disasters of India and Lessons Learnt Disaster Management Act 2005 – Institutional and Financial Mechanism National Policy on Disaster Management, National Guidelines and Plans on Disaster

Management; Role of Government (local, state and national), Non-Government and Inter-Governmental Agencies. National Disaster management Authority.

### **References**

1. Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
2. Carter, W. Nick, 1991: Disaster Management, Asian Development Bank, Manila.
3. Central Water Commission, 1987, Flood Atlas of India, CWC, New Delhi.
4. Central Water Commission, 1989, Manual of Flood Forecasting, New Delhi.
5. Government of India, 1997, Vulnerability Atlas of India, New Delhi.
6. Sahni, Pardeep et.al. (eds.) 2002, Disaster Mitigation Experiences and Reflections, Prentice Hall of India, New Delhi.

## **DEPARTMENT - BIO CHEMISTRY**

### **Basics of Bioinorganic and Biophysical chemistry for Biology graduates.**

#### **Bioinorganic chemistry**

Coordination Compounds: Transition metals, properties (Colour, Oxidation states, Magnetic properties) Coordinate bond, double and complex salts– differences with examples.

Postulates of Warner's theory. Types of ligands: For examples: uni, bi, polydentate ligands. Coordination number, examples.

Porphyrin nucleus and their classification. Important metallo-porphyrins occurring in nature. Structure and biological importance of Heme, cytochrome, chlorophyll, Vitamin B<sub>12</sub>. Nitrogen, Fixation of atmospheric nitrogen – Symbiotic and non-symbiotic. Nitrogen cycle.

Environmental pollution by nitrogen compounds. Phosphorous: Importance of Phosphorous compounds in biological system, phosphorous cycle

Oxygen, Formation of ozone in atmosphere. Role of ozone in maintenance of life on earth. Effect of environmental pollutants on ozone layer.

Sulphur and Selenium, Importance of compounds of Sulphur and Selenium in biological systems. Effect of sulphur compounds on environmental pollution.

#### **Biophysical chemistry.**

Units in chemistry, Avogadro's number, Mole, Mole fraction, Molarity, Equivalent weight, Normality, Molality. Colligative Properties, Osmotic pressure and its measurements. Hypo-, Hyper- and isotonic solutions. Effect of osmotic pressure on living cells.

Donnan membrane equilibrium. Relative lowering of vapour pressure, Raoult's law. Elevation of boiling point, depression in freezing point.

Adsorption: Freundlich and Langmuir's adsorption isotherm. Applications of adsorption.

Viscosity: Definition, determination of viscosity of liquids & solutions by Ostwald's viscometer (solutions of gum and protein to be taken as examples).

Distribution law, Distribution law, partition coefficient, application of distribution law.

Acids, bases and buffers- Lewis concept of acids and bases. Ionic product of water. pH scale, buffers, Henderson- Hasselbach equation, buffer capacity Choice of buffers. Theory of acid base indicators. pH titration curve and iso-electric pH of amino acids.

#### **Selected References:**

1. Basic Principles of Organic Chemistry, Roberts and Caserio, W. A. Benjamin, Inc. (1964).
2. Organic Chemistry, Morrison and Boyd, Allyn and Bacon Inc (1992).
3. Principles of Inorganic chemistry by Cotton & Wilkinson, Wiley (1999).
4. Textbook of Organic chemistry by Ahluwalia V K & Madhuri G Narosa publications (2001).
5. Physical chemistry by Castellan G W, Narosa Publications (2004).
6. Physical chemistry by Chakraborty D K, Narosa Publications (2004).

## **DEPARTMENT - BIOTECHNOLOGY**

### **MBT EL –I- Biotechnology and its Applications**

Introduction to biotechnology. Principles of biotechnology, classification.

#### **Recombinant DNA Technology**

Introduction, outline of genetic engineering procedure, restriction endonucleases, cloning & expression vectors- plasmids, cloning in plasmid, transformation and detection of transformants- lacZ, genomic and cDNA libraries, gene analysis techniques-hybridization: Southern, Northern, Western, in situ, Polymerase chain reaction.

#### **Microbial and food and environmental Biotechnology**

Basics of fermentation technology: Types of microbial culture- batch, continuous and fed-batch. Microbial production: Use of microbes in production of vitamins, enzymes, organic acids, amino acids, polysaccharides, flavors, sweeteners, proteins and antibiotics.

Fermented food products- yogurt, cheese, tempeh, sauerkraut; beverages- wine and beer. Pre- and Pro-biotics, single cell proteins, Genetically modified foods, designer foods.

Current status of biotechnology in environment. Bioconservation, biofuels, gasohol, biogas. Bioremediation: Concepts and principles, bioremediation using microbes, in situ and ex situ bioremediation, biosorption and bioaccumulation of heavy metals.

#### **Plant Biotechnology**

Landmarks in Plant tissue culture. Types of cultures- embryo, organ, callus and cell cultures, Somatic embryogenesis, Haploid Production, Androgenesis, Protoplast culture and somatic hybridization. Micropropagation- Methods and stages, applications. Synthetic seeds, somaclonal variation. Production of secondary metabolites by plant cells, Biotransformation.

Plant transformation techniques: Direct and indirect methods of gene transfer in plants. Transgenic plants and crop improvement- herbicide tolerance, disease resistance, abiotic

stress tolerance, delayed ripening, improvement of nutritional quality, molecular pharming.

### **Animal Biotechnology**

Basics of animal cell culture techniques, cell lines, physical conditions for culturing animal cells, equipments required, scale-up of culture methods.

Application of animal cell culture- Hybridomas, production of therapeutic antibodies, stem cell technology, cell and tissue engineering.

Genetic engineering of animals: Methods for gene transfer in animals, microinjection, nuclear transplantation, retrovirus-mediated gene transfer, gene knockdown techniques. Transgenic-animals- sheep, pigs, cattle, chickens; applications of transgenic animals.

## **DEPARTMENT - CHEMISTRY**

<b>Block-1</b>	<b>Title: Periodic Table and chemical Periodicity</b>
<b>Unit-1</b>	Elements, atomic structure, atomic number, atomic mass, quantum numbers, electronic configuration,
<b>Unit-2</b>	Periodic properties of elements, State of Matter, their resources. Important periodic properties of the elements, covalent radii, ionic radii, ionization potential, electron affinity and electronegativity
<b>Unit-3</b>	Concepts of Acids and Bases: Review of acid base concepts. Lux-Flood and solvent system concepts. Hard-soft acids and bases. Applications.
<b>Unit-4</b>	Solutions: Concentration units, solutions of liquids in liquids, Raoult's law, ideal and non-ideal solutions.

<b>Block-2</b>	<b>Title: Bonding and molecular structure</b>
<b>Unit-5</b>	Calcification of matter: (elements, compounds, substance and mixture), The three states of matter, physical and chemical properties of matter, fundamental particles of atoms, atomic number, atomic mass, atomic structure of atom molecular formula, empirical formula, molecular mass.
<b>Unit-6</b>	Ions and ionic compounds, properties of ionic compounds, formation of ionic compounds, covalent compounds, properties of covalent compounds, properties of covalent compounds
<b>Unit-7</b>	Metals, properties of metals, theory of metallic bond formation, types of metals conductor, semiconductor and insulators, n-type semiconductors and p-type semiconductors, alloys and superconducting materials.
<b>Unit-8</b>	Acids and bases, general properties of acid and bases, Acid base reactions,

oxidation reduction reactions, oxidation number, types of redox reactions, balancing oxidation-reduction equation, exothermic and endothermic reactions energy change in chemical reactions.
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## **DEPARTMENT : CLINICAL NUTRITION AND DIETETICS**

**OEL-1: HEALTHY LIFESTYLES AND NUTRITION      3 Credits**

### **BLOCK 1: INTRODUCTION TO FOOD AND NUTRITION**

**Unit 1.-** Factors affecting food habits, choices and dietary patterns – Definition of Food, Nutrition, Health, Fitness. Interrelationship between nutrition and health, concept of a desirable diet for optimum nutrition, health and fitness.

**Unit 2.-** A brief review of nutrients in general –

- Energy and macronutrients – Carbohydrates, Protein, Fat - functions, sources deficiency disorders and recommended intakes.
- Micronutrients: Minerals – calcium, Iron, Iodine, and other elements, Vitamins – Fat Soluble & Water Soluble.

**Unit 3:** Nutritional assessment- Anthropometric, biochemical, clinical, dietary and Biochemical assessments

**Unit 4:** Basic principles of planning diet –, RDA for Indians, Food groups, Dietary guides and balanced diets.

### **BLOCK 2: PLANNING OF DIET**

**Unit 5:** Principles of planning a normal diet: characteristics of a normal diet, meeting nutrient requirements of individuals and family. Use of Dietary guidelines for Indians.

**Unit 6:** Objectives of diet therapy- Regular diet and rationale for modifications in energy and other nutrients, texture, fluid, soft diets etc.

**Unit 7:** Role of dietician in hospital- specific functions, team approach in patient care, psychological consideration, interpersonal relationship with patients. Nutrition and medical ethics. Hospital dietary- scope and importance, types of food service, quality management.

**Unit 8:** Nutrition counseling: definition, concept, role of clinical dietician, the recipient and counseling environment and goals of counseling. An overview of systems approach to nutritional care and its components (planning, implementation and evaluation).

## REFERENCES

- Srilakshmi B (2004) Nutrition Science. New Age International (P) Ltd, Publishers.
- Kango M (2005) Normal Nutrition, Curing diseases through diet. First Edition CBS Publications. Paul S (2003) Text Book of Bio-Nutrition, Fundamental and Management. RBSA Publishers.
- Williams SR (2000) Nutrition and Diet Therapy. Sixth Edition C.V. Melskey Co.
- Mudambi SR and Rajagopal MV (1997) Fundamentals of Foods and Nutrition. New Age International (P) Ltd, Publishers.
- Swaminathan M (1999) Essential of Food and Nutrition. Vol I and II, Bappco publications, Madras.
- Corinne, H. Robinson 2010– “Normal and Therapeutic nutrition”, Oxford and IBH publishing company, Bombay.
- B. Srilakshmi – 2012 “Dietetics”, 4th edition, New age international publisher, Chennai

## DEPARTMENT - COMPUTER SCIENCE

### ELMCS-01 Mobile App Development: Credit 2

#### Block – I

**Unit-1:** Introduction to Mobile Computing: applications, a simplified reference model, Wireless

Transmission:

**Unit-2:** Frequencies of radio transmission, signals, antennas, signal propagation, multiplexing, modulation, spread spectrum, cellular system.

**Unit-3** Media Access Control: motivation for a specialized MAC, SDMA, FDMA, TDMA, CDMA, and Comparisons.

**Unit-4:** GSM, DECT, Wireless LAN: Infrared vs. radio transmission, Infrastructure and ad-hoc networks, IEEE 802.11, HPERLAN, Bluetooth.

#### Block – II

**Unit-5:** Mobile Network Layer: mobile IP, dynamic host configuration protocol,

**Unit-6:** ad-hoc networks. Mobile Transport Layer: Traditional TCP, classical TCP improvements,

**Unit-7:** TCP over 2.5/3G wireless networks. File Systems, World Wide Web,

**Unit-8:** Wireless Application Protocol (WAP) and WAP 2.0.

#### Text book:

1. Jochen H. Schiller, Mobile Communications(2e)

#### Reference

1. Raj Kamal, Mobile Computing
2. Asoke K. Talukder, Roopa R. Yavagal, Mobile Computing
3. Mazliza Othman, Principles of Mobile Computing and Communications
4. Prasant Kumar Pattnaik, Rajib Mall, Fundamentals of Mobile Computing
5. Ivan Stojmenovic, Handbook of Wireless Networks and Mobile Computer
6. David Taniar, Mobile Computing Concepts, Methodologies, Tools, and Applications

## **DEPARTMENT - ENVIRONMENTAL SCIENCE**

### **ESOEL-1: Basics of Environmental Science**

#### **Block I: Ecology and Environment**

**Unit 1:** Definition, Principles and Scope. Biotic and abiotic factors of environment.  
Ecosystems: pond, forest, river, grassland and estuary ecosystems

**Unit 2:** Ecosystem – trophic structure, energy flow, food chain, food web, Ecological pyramids.

**Unit 3:** Population dynamics: Definition, population density, Natality, Mortality, Age structure, Growth pattern, population dispersion.

**Unit 4:** Biogeochemical cycle – types, sedimentary and gaseous cycles, N, C, S, P, O cycles.  
Rock and hydrological cycles.

#### **Block II: Biodiversity and Conservation**

**Unit 5:** Biodiversity, Definition, Types of Biodiversity, importance and roles.

**Unit 6:** Needs and benefits of biodiversity, Loss of biodiversity- causes and consequences,  
Need for conservation of biodiversity

**Unit 7:** Conservation strategies, endemic and exotic species, Red Data book, National parks, wildlife sanctuaries, biosphere reserves, biodiversity hotspots, wildlife protection act, biodiversity act, wetland conservation and management, Hotspots of biodiversity.

**Unit 8:** Project Tiger, Project elephant, Ramsar site and other conservation projects. Experts Committee Reports on Environmental conservation

## **DEPARTMENT - GEOGRAPHY**

### **ELMG -01, Introduction to Physical Geography (Credit-2)**

#### **Block-1**

Origin, Shape and Size of the Earth, Movement of the Earth- Rotation and Revolution, Effects of the movement of Earth, Coordinates -Latitude, Longitude and Time; Structure of the Earth, Rocks - types, significance, Weathering –types; Agents of Denudation - River, Glacier, Wind and Under Ground water; Structure and Composition of Atmosphere, Weather and Climate

## Block-2

Atmospheric Pressure, Winds and Precipitation; Distribution of Land and Sea, Submarine Relief of the Ocean, Temperature and Salinity of Sea Water; Ocean Tides and Oceanic Currents- Atlantic, Pacific and Indian Oceans; Biosphere- Elements, Ecology, Ecosystem, World's Biomes, Biodiversity – Importance, Types and Conservation

## References

1. B.S. Negi (1993) Physical Geography. S.J. Publication, Meerut
2. D.S.Lal (1998) Climatology. Chaitnya publishing house, Allahabad
3. K. Siddhartha (2001) Atmosphere, Weather and Climate. Kishalaya publication, New Delhi
4. R.N. Tikka (2002) Physical Geography. Kedarnath Ramnath & co, Meerut
5. William D. Thornbury (1997) Principle of Geomorphology. New Age International (Pvt Ltd.) New Delhi.

# DEPARTMENT - MATHEMATICS

## ELMM –01 - FUNDAMENTALS OF MATHEMATICS

(2 Credits)

**Block-I:** Number Theory: Natural numbers, integers, Real numbers, GCD, LCM, Prime numbers. Surds, Indices, Logarithms, Progressions, Arithmetic Progression, Geometric Progression, Harmonic Progression,

**Block-II:** Set Theory: Operations of Union, Intersection, Complement. Relations & Functions: Types of relations One-one, onto, Many-one functions, graphs of functions. Mathematical Logic: Propositions, logical connectives, Methods of proofs.

### Books for Reference:

1. Kolman and Busby: Discrete Mathematics, PHI.
2. S. L. Loney: The Elements of Coordinate Geometry, London Macmillan & Co.
3. B. S. Grewal: Higher Engineering Mathematics, 36<sup>th</sup> Ed., Khanna Pub.
4. S. Lipschutz and M. Lipson: Theory and Problems of Discrete Mathematics. Schaum Series. 2nd Ed. Tata McGraw Hill.

# DEPARTMENT - MICRO BIOLOGY

## Microbial World and Microbial Diversity

- i. Introduction to microbial world, Physiochemical and biological characteristics; Characteristics of Acellular microorganisms (Viruses); Baltimore classification, general structure with special reference to viroids and prions.
- ii. Binomial Nomenclature, Whittaker's five kingdom and Carl Woese's three kingdom classification systems and their utility.

- iii. Difference between prokaryotic and eukaryotic microorganisms
- i. General characteristics of Cellular microorganisms, types - archaebacteria, eubacteria, wall-less forms - MLO (mycoplasma and spheroplasts) with emphasis on distribution and occurrence, morphology, mode of reproduction and economic importance.
- ii. Structure, reproduction and economic importance of Mycoplasma.
- i. General concept of Phytoplanktons and Zooplanktons. Characteristics, occurrence, thallus organization and classification of Algae.
- ii. Cyanobacteria - occurrence, thallus organization, cell ultra structure, reproduction and economic importance. Applications of algae in agriculture, industry, environment and food.
- i. Historical developments in the field of Mycology including significant contributions of eminent mycologists.
- ii. General characteristics of fungi including habitat, distribution, nutritional requirements, fungal cell ultra- structure, thallus organization and aggregation, mode of reproduction and
- iii. Economic importance of fungi with examples in agriculture, environment, Industry, medicine and food.
- i. General characteristics, structure, mode of reproduction and economic importance of Actinomycetes with special reference to its application in medicine and industry.
- ii. General characteristics, occurrence, classification structure, reproduction and economic importance of Protozoa.

### References:

1. Singh, R.P. General Microbiology. Kalyani Publishers, New Delhi (2007).
2. Aneja, K.R. Experiments in Microbiology, Plant pathology and Biotechnology, Fourth edition, NewAge International publishers.
3. Dubey, R.C. and Maheshwary, D.K. Text book of Microbiology. S.chand and company (1999).
4. Powar, C.B. and Dagainawal, H.F. General Microbiology. Vol-I and Vol- II, Himalaya Publishing House.
5. Chakraborty P. A Textbook Of Microbiology. New central book Agency (2005).
6. Prescott, M.J., Harley, J.P. and Klein, D.A. Microbiology. 5th Edition WCB Mc Graw Hill, New York, (2002).
7. Tortora, G.J., Funke, B.R. and Case, C.L. Microbiology: An Introduction. Pearson Education, Singapore, (2004).
8. Alcomo, I.E. Fundamentals of Microbiology. VI Edition, Jones and Bartlett Publishers. Sudbury. Massachusetts, (2001).
9. Black J.G. Microbiology-Principles and Explorations. JohnWiley & Sons Inc. New York, (2002).
10. Pelczar, M.J. Chan ECS and Krieg NR, Microbiology McGraw-Hill.
11. Willey, Sherwood, Woolverton. Prescott, Harley, and Klein's Microbiology McGraw-Hill publication
12. Tortora, Funke, Case. Microbiology. Pearson Benjamin Cummings.
13. JACQUELYN G. BLACK. Microbiology Principles and explorations. JOHN WILEY & SONS, INC.
14. Madigan, Martinko, Bender, Buckley, Stahl. Brock Biology of Microorganisms. Pearson

15. Tom Besty, D.C Jim Koegh. Microbiology Demystified Mc GRAW-HILL.

## DEPARTMENT -PHYSICS

### MP-EL1: Mechanics

#### BLOCK-A

**Unit-1: Laws of Motion:** Frames of reference, Newton's Laws of motion, Dynamics of a system of particles, Centre of Mass.

**Unit-2: Momentum and Energy:** Conservation of momentum, Work and energy, Conservation of energy, Motion of rockets.

**Unit-3: Rotational Motion:** Angular velocity and angular momentum, Torque, Conservation of angular momentum.

**Unit-4: Gravitation:** Kepler's Laws (statement only), Newton's Law of gravitation, motion of a particle in a central force field, satellite in circular orbit and applications, geosynchronous orbits, weightlessness, basic idea of global positioning system (GPS).

#### BLOCK-B:

**Unit-5: Oscillations:** Simple harmonic motion, differential equation of SHM and its solutions, kinetic and potential energy, total energy and their time averages, damped oscillations.

**Unit-6: Elasticity-1:** Hooke's law, stress-strain diagram, elastic moduli-relation between elastic constants, Poisson's ratio, expression for Poisson's ratio in terms of elastic constants, work done in stretching and work done in twisting a wire.

**Unit-7: Elasticity-2:** Twisting couple on a cylinder - determination of rigidity modulus by static torsion, torsional pendulum-determination of rigidity modulus and moment of inertia -  $q, \eta$  and  $\square$  by Searles method.

**Unit-8: Special Theory of Relativity:** constancy of speed of light, postulates of special theory of relativity, length contraction, time dilation.

## DEPARTMENT -PSYCHOLOGY

### EL-1 Introduction to Psychology 2 Credits

#### Block 1: Introduction to Psychology-I

**Unit 1:** Introducing Psychology -Definition, Scope, and goals

**Unit 2:** Branches of Psychology

**Unit 3:** Motivation

**Unit 4:** Emotions

### **Block 2: Introduction to Psychology-II**

**Unit 5:** Sensation, Attention and Perception

**Unit 6:** Learning, Memory and Forgetting

**Unit 7:** Intelligence

**Unit 8:** Personality

#### **References:**

1. Charles G.Morris. Albert A. Maisto Psychology an Introduction , Prentice Hall. New Jersey.
2. Feldman, A. R.,Understanding Psychology IV th Ed, 1996, McGraw Hill, New Delhi.
3. Morgan, King, Weisz &Schopler, Introduction to Psychology-V11 Ed,1993, Tata McGraw Hill, New Delhi.
4. Ernest R Hilgard, Richard C Atkinson ,Rita L Atkinson Introduction to Psychology Oxford Publication, New Delhi.

## **DEPARTMENT : INFORMATION TECHNOLOGY**

### **ELMIT –01: Green Computing**

**(2 Credits)**

**Course Objective:** Study the concepts related to Green IT, Green devices and hardware along with software methods, green enterprise activities, managing the green IT and various laws, standards, protocols along with outlook of green IT.

#### **BLOCK 1: Overview of Green Computing**

**Unit 1:**Green IT Introduction, Overview and issues, Initiatives and standards, Pathways of Green computing, Benefits of Green IT, Environmental Impacts of IT

**Unit 2: Green devices and hardware** Environmental issues arising from electronic devices, life cycle of electronic devices, Hazards and E-waste Recycling, Going paperless, Hardware considerations, Greening information systems, Managing Green IT, 3Rs of Green IT, Thinking About Money-Saving Efforts

**Unit 3:** Green Data Centres and Associated Energy Challenges, Data Centre IT Infrastructure, Data Centre Facility Infrastructure: Implications for Energy Efficiency, IT Infrastructure Management, Green Data Storage, Storage Media Power Characteristics,

**Unit 4:** Green network and communications, objectives and challenges of green networking, Enterprise Green IT strategy, Approaching Green IT strategies, Business drivers and dimensions for Green IT strategies, Steps in Developing a Green IT Strategy, Metrics and Measurements in Green Strategies

## **BLOCK 2: Management of Green Computing**

**Unit 5:** Sustainable Information Systems and Green Metrics, Sustainable IT Services, Sustainable IT Roadmap, Enterprise, Green IT Readiness, Readiness and Capability Green Enterprises and the Role of IT, Organizational and Enterprise Greening, Information Systems in Greening Enterprises, Greening the Enterprise: IT Usage and Hardware,

**Unit 6:** Managing Green IT, Strategizing Green Initiatives, Implementation of Green IT, Regulating Green IT: Laws, Standards and Protocols,

**Unit 7:** Green Cloud Computing and Environmental Sustainability, Cloud Computing and Energy Usage Model: A Typical Example, Features of Clouds Enabling Green Computing, Green Cloud Architecture

**Unit 8:** Green IT: An Outlook, Awareness to Implementation, Green IT Trends, Greening by IT, A Seven-Step Approach to Creating Green IT Strategy

### **Text Books:**

1. Gangadharan, G. R., & Murugesan, S. (2012). Harnessing Green IT: Principles and practices. Wiley Publication, ISBN: 9788126539680.
2. Smith, B. E. (2013). Green Computing: Tools and Techniques for Saving Energy, Money, and Resources. CRC Press.

## **DEPARTMENT -BOTANY**

### **Plant-Microbe Interactions**

Overview of plant microbes interactions,

Introduction, beneficial microbes, Rhizobium bacterium and nitrogen fixation, mycorrhizal fungi.

Plant pathogens, Agrobacterium tumefaciens and crown gall disease,

Mechanisms of plant disease mechanism, some bacterial plant diseases,

Plant viruses and mechanism of plant against viruses attacks.

Fungal pathogen- mechanism of plant disease,

Omycete pathogens, Fungal mediated plant.

General concept of plant immunity,

PAMP-triggered immunity (PTI) and effectors-triggered immunity (ETI).

Transcription activator like effector and their role in virulence and disease resistance.

### **References**

1. Lautenberg, B. (2015). Principles of Plant-Microbes Interactions: Microbes for sustainable Agriculture, Springer.
2. Stacey, G. and Keen, N. T. (1997). Plant-Microbes Interactions, Vol 4, . Springer.
3. Ramasamy, K, (2015). Plant Microbes Interactions, New India Publishing Agency.
4. Martin, F. and Kamoun, S. (2014). Effectors in Plant-Microbes Interactions 1st Edition, Wiley Blackwell.

# DEPARTMENT -ZOOLOGY

## MZO-IE-1: Parasites, Vectors & Communicable Diseases

### Introduction to parasites.

Distribution, types, origin and evolution of parasites. Parasitism.

Types: Ecto-parasites, Endo-parasites and their adaptations.

Pathogenic micro-organisms, brief outline and classification of parasitic protozoan's: Entamoeba, Balantidium, Giardia, Trichomonus, Plasmodium, Leishmania and Trypanosoma and their diseases.

Control measures, diagnosis and therapy.

### Pathogenic helminthes and vectors.

Etiology, epidemiology, pathogenesis, diagnosis, prevention and control of disease due to *Trichinella spiralis*, *Ancylostoma duodenale*, *Fasciola hepatica*, *Schistosoma* species.

Pathogenic Cestodes: Life cycle, treatment of diseases caused by Echinococcus, Hymenolepis and Diphylobothrium. Scope and importance of vectors. Origin and evolution of vectors. Habitat, life cycle, pathogenicity of fleas, mites, ticks, lice's and mosquitoes.

Historical perspectives and scientists involved in the discovery of vectors and communicable Diseases.

Epidemiology, bio-ecology, life cycle of biological and mechanical Vectors. Vector-host-parasites interactions, Host-pathogen interaction, insects transmitting Bacteria and viruses.

### Control and management of vectors and vector borne diseases

Control measures: cultural, chemical, biological, genetic and environmental Methods of vectors. Management of biological and mechanical vectors during Different seasons. Integrated Vector Control and Management.

Insecticide resistance in vectors, Drug resistance in pathogens.

Importance of education, awareness among public on communicable diseases and community participation. Covid-19 pandemics. Epidemiology of corona virus and its mutants.

Vaccination against corona virus in India and other parts of the world.

# DEPARTMENT –FOOD AND NUTRITION SCIENCE

## ELMFNS- 01 FOOD PSYCHOLOGY

Credits: 2

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## **BLOCK 1: FOOD: PREFERENCES AND CHOICES**

**Unit 1: Food:** Physiological definition and significance, meaning of food, food classification, Food as statement of self-identity, Social interaction, Cultural identity

**Unit 2: The Role of Food and Eating on Personality and Social Development:** Psychology of eating, Food and emotion regulation, Food in daily living, Food Socialization, Food and control of others

**Unit 3: Food Preferences and Fluctuations:** Developmental Models, Cognitive Models & Psychophysiological Models, Physiology of food choice, Likes and Dislikes, acquired food preferences, Attitudes towards change, Food and sensory stimulus, Factors influencing eating behavior – (biological, environmental, individual, food characteristics, culture etc., Effect of eating on food selection and preferences, Understanding of the body and self – selection of the diet.

**Unit 4: Food choices across lifespan and influence of society:** The changing role of the senses in food choice and food intake across lifespan, Food in security and health across lifespan, Influence of media and advertisements, Digital platform and influence on food choices

## **BLOCK 2: EATING DISORDERS AND TREATMENTS**

**Unit 5: Mood, Emotions, food cravings and addictions:** relation with food preferences, Connection between mood and eating, Biological and physiological aspects of food cravings, Stress and eating behavior, Food addiction - description, neurobiology of food addiction

**Unit 6: Eating disorders and treatment:** Anorexia nervosa, Bulimia nervosa and binge eating Disorder-Definition, Symptoms, believed causes, Classification, Risk factors, Common myths of eating disorders, Treatment & dietary management

**Unit 7: Overeating, Obesity and Weight management:** Definition, Prevalence, Classification of Body Mass Index, Types & patterns, Etiology, Physiological component, Fad diets, Risk factors, Treatment - Weight management (Behavior & Cognitive), Lifestyle modifications, Dietary modification - (calorie restricted diet)

**Unit 8: You are what you eat- Approaches to change the dietary behavior:** Multidisciplinary approach, Strategies to support healthy dietary behavior: Encouraging healthy eating, Selection of food, Meal & portion size, developing education materials, Motivation & economics, Benefits of exercise, Stage classification for change, Barriers affecting the clinical outcome

## REFERENCES:

1. [Smith John L.](#) (2002 ), The Psychology of Food and Eating (English, Hardcover, Smith John , Publisher: Palgrave MacmillanL.), ISBN: 9780333800201, 0333800206.  
Alexandra W. Logue Oct 2017, The Psychology of Eating and Drinking Fourth Edition.

## Annexure II INTER- DISCIPLINARY COURSE (Open Elective) for Second Semester

### ವಿಭಾಗ- ಕನ್ನಡ

ಪತ್ರಿಕೆ-೬: ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಇತಿಹಾಸ

EL-2.1 (ಕ್ರೆಡಿಟ್-೨)

ಬ್ಲಾಕ್-೨೮: ಸಾಹಿತ್ಯ ಚರಿತ್ರೆಯ ಉಗಮ ಮತ್ತು ವಿಕಾಸ

ಘಟಕ-೦೪೯: ಸಾಹಿತ್ಯದ ಉಗಮ, ಬೆಳವಣಿಗೆ, ಉದ್ದೇಶ.

ಘಟಕ-೦೫೦: ಪ್ರಾಚೀನ ಪೂರ್ವ ಶಾಸನಸಾಹಿತ್ಯ.

ಘಟಕ-೦೫೧: ಪಂಪ ಪೂರ್ವ ಯುಗದ ಸಾಹಿತ್ಯ.

ಘಟಕ-೦೫೨: ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆಯ ವಿಭಾಗಕ್ರಮ.

ಬ್ಲಾಕ್-೨೯: ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ

ಘಟಕ-೦೫೩: ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ ರೂಪಗಳು; ಚಂಪೂ, ವಚನ, ರಗಳೆ, ಷಟ್ಪದಿ, ಸಾಂಗತ್ಯ ಇತ್ಯಾದಿ.

ಘಟಕ-೦೫೪: ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಪರಿಕಲ್ಪನೆಗಳು;

ಚರಿತ್ರೆ-ಪುರಾಣ, ಧರ್ಮ-ಕಾವ್ಯಧರ್ಮ, ಹಿಂಸೆ-ಅಹಿಂಸೆ, ಮಾರ್ಗ-ದೇಶಿ, ಲೌಕಿಕ-ಆಗಮಿಕ, ವಸ್ತುಕ-ವರ್ಣಕ, ಪ್ರಭುತ್ವ-ಪ್ರತಿರೋಧ.

ಘಟಕ-೦೫೫: ಪ್ರಾಚೀನ ಕನ್ನಡ ಕವಿ-ಕೃತಿ-ಕಾಲ-ದೇಶ-ಭಾಗ ೧.

ಪಂಪ, ರನ್ನ, ಪೊನ್ನ, ೧ನೆ ಚಾವುಂಡರಾಯ, ನಾಗವರ್ಮ ೨ನೆಯ ಚಾವುಂಡರಾಯ, ನಾಗಚಂದ್ರ, ನಯಸೇನ, ದುರ್ಗಸಿಂಹ, ಬ್ರಹ್ಮಶಿವ, ಕರ್ಣಪಾರ್ವ, ಜನ್ನ.

**ಘಟಕ-೧೫೬:** ಪ್ರಾಚೀನ ಕನ್ನಡ ಕವಿ-ಕೃತಿ-ಕಾಲ-ದೇಶ-ಭಾಗ ೨.

ಆಂಡಯ್ಯ, ನೇಮಿಚಂದ್ರ, ರುದ್ರಭಟ್ಟ ಪ್ರಮುಖ ವಚನಕಾರರು - ಜೇಡರ ದಾಸಿಮಯ್ಯ, ಬಸವಣ್ಣ, ಅಕ್ಕ ಮಹಾದೇವಿ, ಅಲ್ಲಮಪ್ರಭು, ಚನ್ನಬಸವಣ್ಣ, ಹರಿಹರ, ರಾಘವಾಂಕ, ಕುಮಾರವ್ಯಾಸ, ಲಕ್ಷ್ಮೀಶ, ಪ್ರಮುಖ ಕೀರ್ತನಕಾರರು, ಚಾಮರಸ, ಕುಮಾರವಾಲ್ಮೀಕಿ, ಸರ್ವಜ್ಞ, ಷಡಕ್ಷರಿ, ಸಂಚಿ ಹೊನ್ನಮ್ಮ, ನಂಬುಂಡ, ರತ್ನಾಕರವರ್ಣಿ, ಮುದ್ದಣ, ಕೆಂಪುನಾರಾಯಣ.

## ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು

೧. ಗತಿಬಿಂಬ : ಜಿ.ಎಸ್. ಶಿವರುದ್ರಪ್ಪ, ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಬೆಂಗಳೂರು
೨. ಕಾವ್ಯ ವಿಹಾರ : ಕುವೆಂಪು, ಉದಯರವಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು, ೧೯೬೯
೩. ಸಮಗ್ರ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ : ಬೆಂಗಳೂರು, ವಿಶ್ವವಿದ್ಯಾನಿಲಯ ಬೆಂಗಳೂರು, ೨೦೦೨
೪. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ : ಕೆ. ವೆಂಕಟರಾಮಪ್ಪ, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
೫. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ: ದೇವುಡು, ಶಾರದಾ ಪ್ರಕಾಶನ, ಮೈಸೂರು, ೧೯೩೫
೬. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಸಂಗಾತಿ : ಕೀರ್ತಿನಾಥ ಕುರ್ತಕೋಟಿ, ಮನೋಹರ ಗ್ರಂಥಮಾಲೆ, ಧಾರವಾಡ
೭. ಶೈಲಿ : ಎಸ್.ವಿ.ರಂಗಣ್ಣ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು, ೧೯೭೬
೮. ಶತಮಾನದ ಕನ್ನಡ ಸಾಹಿತ್ಯ : ಸಂಪಾದಕರು, ಜಿ.ಎಸ್. ನಾಯಕ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
೯. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಇತಿಹಾಸ : ರಂ. ಶ್ರೀ. ಮುಗಳಿ, ಕೇಂದ್ರ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ನವದೆಹಲಿ, ೧೯೬೩
೧೦. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ : ರಂ.ಶ್ರೀ. ಮುಗಳಿ, ಉಷಾ ಸಾಹಿತ್ಯ ಮಾಲೆ, ಮೈಸೂರು, ೧೯೭೧
೧೧. ಬಿಂಬ: ಚದುರಂಗ, ಸಂವಹನ ಪ್ರಕಾಶನ, ಮೈಸೂರು
೧೨. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ ಸಂಪುಟಗಳು : ಕುವೆಂಪು ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು. ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು, ೧೯೮೨
೧೩. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಪ್ರಾಚೀನತೆ: ಪ್ರಧಾನ ಸಂಪಾದಕರು, ಎ. ರಂಗಸ್ವಾಮಿ, ಲೇ. ಎಚ್.ಪಿ. ಗೀತಾ, ಜನಪ್ರಿಯ ಕನ್ನಡ ಮಾಲೆ, ಕನ್ನಡ ಅಧ್ಯಯನ ಮತ್ತು ಸಂಶೋಧನಾ ವಿಭಾಗ, ಕರಾಮುವಿ, ಮೈಸೂರು, ೨೦೧೧
೧೪. ಪ್ರಾಚೀನ ಕನ್ನಡ ಕಾವ್ಯ ಸ್ಥಿರತೆ ಮತ್ತು ಚಲನ ಶೀಲತೆ : ಪ್ರಧಾನ ಸಂಪಾದಕರು, ಎ. ರಂಗಸ್ವಾಮಿ, ಲೇ. ಶಿವರಾಮಯ್ಯ, ಜನಪ್ರಿಯ ಕನ್ನಡ ಮಾಲೆ, ಕನ್ನಡ ಅಧ್ಯಯನ ಮತ್ತು ಸಂಶೋಧನಾ ವಿಭಾಗ, ಕರಾಮುವಿ, ಮೈಸೂರು, ೨೦೧೨
೧೫. ಕನ್ನಡ ಕೃಷಿ: ಸಂಪುಟ ೨, ಪ್ರಸಾರಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು, ೨೦೦೭

## DEPARTMENT - ENGLISH

### EL-2.1: INDIAN LITERATURE-II

#### **OBJECTIVES**

- To appreciate artistic values in *Hayavadana* and the use of myth
- To know the importance of Indian English historical plays
- To appreciate Sri Aurobindo as a poet and critic
- To comprehend the different theories of aesthetic experience of art

#### **BLOCK -I**

**Girish Karnad:** Hayavadana  
**Gurucharan Das:** Larin Sahib

## **BLOCK -II**

**M. Hiriyanna:** Art Experience

**Sri Aurobindo:** Selections: The Poets of the Dawn and The Poets of the Dawn 3 (The Future Poetry)

### **Suggested Reading:**

- **K.R.Srinivas Iyengar:** Indian Writing in English .Macmillan, 1979.
- **M.K.Naik:** Critical Essays on Indian Writing in English.Sahitya Akademi, 1969.
- **Narasimhaiah C.D:** The Swan and the Eagle. Indian Institute of Advanced Study, 1987.
- **Meenakshi Mukherjee:** The Twice Born Fiction. Heinemann Educational Publishers, 1972.

## **DEPARTMENT - HINDI**

### **हिंदी सिनेमा**

- सिनेमा का उद्भव और विकास
- मूक चलचित्र और दादा साहब फाल्के युग
- दूसरा पढ़ाव, सवाक चलचित्र अथवा आलमआरा
- रंगीन सिनेमा का युग
- सामाजिक सिनेमा एक विवेचन
- धर्म एवं सांस्कृतिक सिनेमा एक विवेचन
- राजनैतिक सिनेमा एक विवेचन
- आर्थिक सिनेमा एक विवेचन
- हास्य एवं व्यंग्य सिनेमा एक विवेचन
- बाल सिनेमा
- सिनेमा एवं संवेदना
- सिनेमा एवं भाषा-शिल्प सिनेमा एवं गायन
- सिनेमा एवं पात्र संयोजना
- सिनेमा एवं नैतिक मूल्य
- अनूदित सिनेमा
- सिनेमा का तुलनात्मक अध्ययन
- फिल्म समीक्षा.....आदि

□□□□□ □□□□□

- सिनेमा साहित्य और समाज- प्रहलाद अग्रवाल, अनामिका प्रकाशन, नई दिल्ली
- कथाकार कमलेश्वर और हिंदी सिनेमा- उज्ज्वल अग्रवाल, राजकमल प्रकाशन, नई दिल्ली

- बॉलिवुड पाठ विमर्श के संदर्भ- ललित जोशी, वाणी प्रकाशन, नई दिल्ली
- फलैशबैक, प्रभुनाथ आज़मी, शिल्पायन, नई दिल्ली
- नाटक के सौ बरस, हरिश्चंद्र अग्रवाल और अजित पुष्कल, शिल्पायन, नई दिल्ली

## DEPARTMENT - TELUGU

### E. L. 2.1 TELUGU SAMSKRUTHI - SAMAJAM

#### Block - 1: ANDHRULA CHARITHRA - SAMSKRUTHI

Unit - 1: Samskruthi Vaisistyam

Unit - 2: Andhrula Charithra - Samskruthi Paraspara Prabhavam

Unit - 3: Andhrula kalalu

Unit - 4: Andhrula basha - samajam

#### Block - 2: ANDHRULA AACHARALU -SAMPRADHAYALU

Unit - 1: Andhrula Pandugalu

Unit - 2: Sthrela Nomulu - Vrathalu

Unit - 3: Andhrula Sangikaacharalu

Unit - 4: Andhrula Sampradhayalu

## DEPARTMENT - HISTORY

### OEL2.1 Social Reform Movements in Modern India

**Objective:** The course aims to trace the causes for the division of society in various sections and need for reformation. Further it explains age old social evils which crippled Indian society.

**Pedagogy:** personal contact programmes, audio video programmes, online lectures  
Assignments, etc

**Credits:** 2. **Examination Duration:** 1 1/2 hours and Maximum Marks: 40

#### Course outcomes

After completing this course the students should be able to

- Understanding the contributions of the Raja ram Mohan Roy Dayananda Sarawathi towards the Indian modernity
- Analyse the Jyothibai pule Savithribai Pule Ambedkar's contributions to Indian social reform movements
- Evaluate the works of Sahu Maharaj and Krishna raja wadiyar IV patronage to social Justice.

#### Block-I

##### Unit : 1

Colonial Discovery of India : Orientalism, Anglicism, Evangelism-Understanding Indian Society, Meaning of Social Reform. The Concept of Modernity : Western Impact – Indian Response.

**Unit : 2**

Rajaram Mohan Roy and Brahmo Samaj, Dayananda Sarawathi and Arya Samaj- Nationalism and Society – Prarthana Samaj.

**Unit : 3**

Jyothi Ba- Phle and Savithri Ba Pule, Social and education reforms.

**Unit : 4**

Communalism, Eradication of Communalism, Muslim League, Wahhabi and Pan Islamism-Syed Ahmed and Aligarh Movement.

**Block-II****Unit : 5**

The debate over the interpretation of Shastras – Ishwar Chandra Vidya Sagar - B.M.Malabari – Vivekananda –M.G. Ranade—Bal Gangadhar Tilak.

**Unit :6**

Dr. B.R.Ambedkar-, His views on Society, A caste and its annihilation, Religion and Economy, M.K.Gandhi- E.V.Ramswamy Periyar and Sri.Narayanguru, Ayyan kali.

**Unit :7**

The reformers – Kandukuri Veereshalingam – Pandit Shivanatha Shastry – Gopal Ganesh Agarkar-K.T.Telang-Maharma.

**Unit :8**

D.K.Karve, Maharaj Saiyyaji Rao Gaekwad of Baroda – Chatrapathi Shahu Maharaj of Kolhapur and Maharaja Krishnaraja Wodeyar IV of Mysore.

**Suggested readings:**

1. Nararajan : A Century of Social Reform in Indian.
2. Seetharam Singh : Nationalism and Social Reform in India
3. Dhananjaya Keer : Ambedkar, Life and Mission
4. Dhananjaya Keer :Mahatma Jyoti Rao Phule : Father of Social Revolution in India
5. Charless Heimsath R : Indian Nationalism and Hindu social Reform
6. A.S.Altekar : Position of Women In Hindu Civilization.
7. Gail Omvedt : Cultural Revolt in a Colonial Society – The Non – Brahmin Movements in Western India.
8. Gail Omvedt : Dalits and Democratic Revolution.
9. Ravindrakumar : Selected Documents of B.G.Tilak.
10. S. Ramkrishna : Social Reform Movements in Andhra
11. M.K.Gandhi : Women and Social Injustice.

ವಿಜಯ ಪೋಸ್ಟಲ್ ತಂಬಂಡ (ಸಂ), ಭಾರತ ಉಪಖಂಡದ ಆಧುನಿಕ ಪೂರ್ವ ಚರಿತ್ರೆ ವಿವಿಧ ಆಯಾಮಗಳು  
– ಸಂಪುಟ-03, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಹಂಪಿ.

## DEPARTMENT - POLITICAL SCIENCE

### (OEL-I) Indian Constitution

## **Block-I**

- Unit:1 Framing of the Indian Constitution.  
Unit:2 Preamble and Salient Features of the Indian Constitution.  
Unit:3 Fundamental Rights and Duties.  
Unit:4 Directive Principles of the State Policy.

## **Block-II**

- Unit:5 Union Legislature : Composition, Powers and Functions.  
Unit:6 Union Executive : President and Vice-President - Election, Powers and Functions, Prime ministers and Council of Minister - Powers and Functions.  
Unit:7 State Legislature : Composition, Powers and Functions, State Executive -Governor and Chief Minister.  
Unit:8 The Judiciary : Supreme Court and High Court - Composition, Jurisdiction and Functions.

## **References:**

1. Andre Beteille, 1965. Caste, class, and Power. Berkley: University of California Press.
2. Appadorai, A 1968. India: Studies In Social And Political Development 1947-1967. New Delhi: Aisa Publishing House.
3. Desai, A R. 2016. Social Background of Indian Nationalism. Los Angeles: Papular Prakashan.
4. Granville Austin, 2000. The Indian Constitution: Cornerstone of a Nation. Melbourne: Oxford University Press.
5. Hanson and Douglas, 1972. India`s Democracy. New York city: W W Norton & Co Inc.
6. Johari J C 1974. Indian Government and Politics. New Delhi: Vishal Publications.
7. Karunakaran, K.P 1964. Continuity and Change in Indian Politics. New Delhi: People`s Pub. House.
8. Kochanek. A. 1968. The Congress Party of India: the Dynamics of a One-Party Democracy. New Jersey: Princeton University Press.
9. Morris Jones, 1967. The Government and Politics of India. London: Hutchinson University Library.
10. Myron Weiner, 1957. Party Politics in India. New Jersey: Princeton University Press.
11. Myron Weiner, 1967. Party Building in New Nation. Chicago: University of Chicago Press.
12. Palmer, N D 1971. The Indian Political System. Boston: Houghton Mifflin.
13. Partha Chatterjee, 1998. State and Politics in India. University of Michigan: Oxford University Press.
14. Pylee, M V 1960. Constitutional government in India. Bombay: Asia Pub. House.
15. Rajni Kothari, 1970. Politics in india. The University Of Michigan: Little Brown
16. Rajni Kothari, 1995. Caste in Indian Politics. Telangana: Orient Blackswan.
17. Venkatarangaiya: M Shiviah, 1975. Indian Federalism. New Delhi: Arnold-heinemann Publishers.
18. Zoya Hasan, 2000. The State in Indian Politics. Landon: Sage publication.

## **DEPARTMENT - SOCIOLOGY**

## **Study of Indian Society -02 Credits**

### **Course Description**

Every science has its own classical theories, which stand as eternal in their explanatory power and prowess to transcend the time and region. This course intends to introduce the learners to the classical period of sociology which is not just a bundle of theories but a consistent tradition and formative period, even contemporary theories cannot eschew from being inspired. After studying this course, following learning outcomes can be expected.

### **Course Objectives**

1. To appreciate the organizational framework of Indian society
2. To appreciate the aspects unity and diversity of Indian society
3. Examine the social issues in contemporary India

### **Learning Outcomes**

Following outcomes are expected from the learners after successfully completing the course. Learner can/has

LOC-1: sociological insights about the social structural and organizational aspects of Indian society

LOC-2: present the changes in institutional framework of Indian society

LOC-3: recognize the causes for major social issues and present realistic remedies

### **Course Content**

#### **Block-1 Social Organizations**

Unit-1 Unity and Diversity-Problem of Integration

Unit-2 Caste-Characteristics and Recent Changes

Unit-3 Marginalization-SC, ST, OBC and Minorities

Unit-4 Changes in Family and Concerns of the Aged

#### **Block-2 Social Issues in Contemporary India**

Unit-5 Environmental Sanitation and Ecological Degradation

Unit-6 Educated Unemployment and Employability

Unit-7 Social Unrest-Terrorism, Naxalism, Communalism and Corruption

Unit-8 Child Rights and Right to Education (RTE)

### **References**

- Ahuja, Ram. 2002. Study of Social Problems. Jaipur & New Delhi: Rawat Publications
- Atal, Yogesh. 1979. The Changing Frontiers of Caste. National Publishing House: Delhi
- Beteille, Andre. 1971. Caste, Class and power. Berkeley: University of California.
- Beteille, Andre. 1974. Social Inequality, New Delhi: Oxford University Press.
- Beteille, Andre. 1992. Backward Classes in Contemporary India. New Delhi: Oxford University Press.
- Berreman, G.D. 1979. Caste and Other Inequalities: Essays in Inequality. Meerut: Folklore Institute.
- Dube, Leela. 1997. Women and Kinship, Comparative Perspectives on Gender Southern South Asia.
- Das, Veena. 2006. Oxford Handbook of Indian Sociology. New Delhi: Sage
- Dube, S C. 1990. Study of Indian Society. New Delhi: National Book Trust
- Jha, Hetukar. 2015. Sanitation in India. Delhi: Gyan Books.

- Karve, Irvathi. 1990. Kinship Organization in India.
- Pais, Richard. 2015. Sociology of Sanitation. Delhi: Kalpaz Publications.
- Pathak, Bindeshwar. 2015. Sociology of Sanitation. Delhi: Kalpaz Publications.
- Singer, Milton & Cohen, Bernards. 1996. Structure and change in Indian Society. Jaipur: Rawat
- Singh, Yogendra, Modernization of Indian Tradition. Jaipur & New Delhi: Rawat
- Srinivas, M N. 1995. Social Change in Modern India: Orient Blackswan
- Srinivas, M. N. 1962. Caste in Modern India and Other Essays. Asia Publishing House: Delhi

## **DEPARTMENT – ANCIENT HISTORY AND ARCHEOLOGY**

AHA  
OE 2.1

### **Cultural History of Hoysalas (OE)**

#### **Block - 1**

#### **Early Kings**

- Unit - 1 Archeological and Literary Sources  
Unit - 2 Theories of Origin of Hoysalas – Sala – Nripakama – Ereyanga

#### **Block - 2**

#### **Important Rulers**

- Unit - 3 Vishnuvardhana - VeeraNarasimha – I  
Unit - 4 Ballala – II - Narasimha – II - Narasimha III and Ballala – III

#### **Block - 3**

#### **Cultural Contributions**

- Unit - 5 Hoysala polity - Economy  
Unit –6 Hoysala Society – Religion – Education - literature

#### **Block - 4**

#### **Art and Architecture**

- Unit - 7 Hoysala Architecture  
Unit – 8 Hoysala Art

#### References:

1. Epigraphia Carnatica: Relevant Volumes
2. Derrett Duncan, M.J: The Hoysalas, 1957
3. Dhakey M.A: Encyclopedia of Indian Temple Architecture
4. Desai P.B: History of Karnataka
5. Foekema Gerard: A Complete Guide to Hoysala Temples
6. Gopinatha Rao T.A: Elements of Hindu Iconography, Vols

7. Kelleeson Collyer: The Hoysala Artists – Their Identity Style
8. Krishna Murthy M.S: The Hoysala Art, Kuppam, 2007
9. Padmnabha K: Hoysala Sculptures : A cultural Study
10. Sheik Ali B (Ed): The Hoysala Dynasty , 1972
11. William Cohelo: The Hoysala Vamsha, 1950
12. Annual Reports of the Department of Archaeology, Mysore 1939 – 46
13. Settar S: Hoysala Temples
14. Marg: In Praise of Hoysala Art
15. Narasimhachar R; Lakshmidēvi Temple at Doddagaddhāvalli
16. Shastri KAN: The Cholas, 17. Shastri KAN: History of South India

## **DEPARTMENT - EDUCATION**

### **IDC - 2 HIGHER EDUCATION**

#### **BLOCK - 1 HIGHER EDUCATION – ORGANIZATION AND TEACHING – LEARNING**

- Unit-1 Higher Education
- Unit-2 Teaching Learning in Higher Education – I
- Unit-3 Teaching-Learning in Higher Education – II
- Unit-4 Problems and Innovations in Higher Education

#### **BLOCK - 2 HIGHER EDUCATION – SOCIO-PSYCHOLOGICAL AND MANAGEMENT DIMENSIONS**

- Unit-5 Socio-Psychological Background of College Students
- Unit-6 Problems of College Students
- Unit-7 Higher Education – Management Dimensions
- Unit-8 Higher Education Teacher

#### **References:**

1. Shills Edward (1989) ‘The modern university Liberal Democracy’.
2. Abraham, Abu (1988) The Penguin, Book of Indian cartoons, New Delhi.
3. Chandra, Bipan (1984) Communalism Modern India, New Delhi.
4. Chauhan S.S (1989) Innovations in Teaching Learning Process, New Delhi, Vikas.
5. Srivastva A.B and Sharma K.K (1985) Elementary Statistics in Psychology and Education, New Delhi, Sterling Publishers Pvt. Ltd.,

## **DEPARTMENT - COMMERCE**

### **Elective Course – EL2.1: Entrepreneurship Development**

- **Objective:** To enable the Students to understand about the different aspects of Entrepreneurship Development.
- **Pedagogy:** A Combination of Lectures, Group Discussion, Assignments.
- **Credits:** 2 ; Examination Duration: 1½ and Maximum Marks: 50 (Internal Assessment Marks = 10 and Semester-end Examination =40)

## Course Inputs

### Block I

- **Unit -1: Entrepreneur and Entrepreneurship:** Introduction - Evolution – Characteristics – Distinction between Entrepreneur and Manager – Functions – Types – Entrepreneur - Concept of Entrepreneurship – Growth of Entrepreneurship in India – Role of Entrepreneurship in Economic Development
- **Unit – 2: Women Entrepreneurship:** Introduction - Concept – Statistical Evidence – New Age Women – Functions – Growth - Problems – Recent trends in Development of Women Entrepreneurship.
- **Unit -3: Rural Entrepreneurship:** Introduction - Meaning – Need – Rural Industrialisation in Retrospect – Problems – Development of Rural Entrepreneurship – NGOs and Rural Entrepreneurship.
- **Unit -4: Conceptual Models of Entrepreneurship:** Introduction - Models of John Kao – Udai Pareek and Nadakarni– NISIET.

### Block II

- **Unit – 5: Factors Affecting Entrepreneurial Growth And Competencies:** Introduction - Economic Factors – Non-Economic Factor – Government Actions - Entrepreneurial Competencies: Meaning – Major Entrepreneurial Competencies – Developing Competencies.
- **Unit -6: Entrepreneurial Motivation and Mobility:** Introduction - Motivation – Motivation Theories – Motivating Factors – Achievement Motivation – Factors Influencing Mobility – Occupational Mobility – Locational Mobility.
- **Unit – 7: Entrepreneurship Development Programmes:** Introduction - Need for EDPs - Objectives of EDPs – Course Contents and Curriculum of EDPs – Phases of EDPs – Evaluation of EDPs.
- **Unit -8: Institutional Support System for Entrepreneurship:** Introduction - DICs – SISIs – SIDCOs – NISIET – EDIT – NIESBU – TCOs- A Broad Overview of Central and State Level Financing Institutions.

### Books Recommended for Reference

- a. Vasanth Desai, The Dynamics of Entrepreneurial Development and Management, Himalaya Publishing House.
- b. A. N Desai, Entrepreneurship Management, Ashish Publishing House.
- c. Chandra Prasanna, Project Preparation, Appraisal and Implementation, Tata McGraw Hill.
- d. Khanka, S.S, Entrepreneurial Development, S. Chand Publications.
- e. Prasanna Chandra, Projects: Planning, Analysis, Selection, Implementation and Review, Tata McGraw Hill.

## DEPARTMENT - MANAGEMENT

### E-COMMERCE

Credits: 2

Module 1: E-commerce and its Technological Aspects:

Overview of developments in Information Technology and Defining E-Commerce: The scope of E commerce, Electronic Market, Electronic Data Interchange, Internet Commerce, Benefits and limitations of E-Commerce, Produce a generic framework for E-Commerce, Architectural framework of Electronic Commerce, Web based E Commerce Architecture.

**Module 2: Electronic Data Interchange:** Benefits of EDI, EDI technology, EDI standards, EDI communications, EDI Implementation, EDI Agreements, EDI Security. Electronic Payment Systems, Need of Electronic Payment System: Study and examine the use of Electronic Payment system and the protocols used, Study Electronic Fund Transfer and secure electronic transaction protocol for credit card payment. Digital economy: Identify the methods of payments on the net – Electronic Cash, cheques and credit cards on the Internet.

**References:**

1. Elias. M. Awad, " Electronic Commerce", Prentice-Hall of India Pvt Ltd.
2. Ravi Kalakota, Andrew B. Whinston, "Electronic Commerce-A Manager's guide", Addison-Wesley.
3. Efraim Turban, Jae Lee, David King, H.Michael Chung, "Electronic Commerce–A Managerial Perspective", Addison-Wesley.
4. Elias M Award, "Electronic Commerce from Vision to Fulfilment", 3rd Edition, PHI, Judy Strauss, Adel El-Ansary, Raymond Frost, "E-Marketing", 3RDEdition, Pearson Education

## DEPARTMENT - BIO CHEMISTRY

### Basics of Bioorganic chemistry for Biology graduates.

Introduction to Organic chemistry: Classification of organic compounds, unique characteristics, IUPAC nomenclature of organic compounds (including bifunctional).

Reaction mechanisms: Classification of organic reactions: substitution, addition, elimination and rearrangement with one example for each. Concepts of the following – carbon anions, carbon cations, free radicals, carbenes, nucleophiles and electrophiles.

Cycloalkanes: Reactivities and relative stability, Bayer's strain theory. Sachse-Mohr theory. Boat and chair form of cycloalkanes. Axial and equatorial bonds.

Arenes: Structure of Benzene–resonance and molecular orbital theories. Aromaticity. Mechanism of Nitration and Friedel-Craft's reaction. Electronic interpretation of the orienting influence of substituents in the electrophilic substitution of Toluene, Chlorobenzene, Nitrobenzene and Phenol. Polynuclear hydrocarbons–Resonance structures of Naphthalene, Anthracene and phenanthrene.

S<sub>N</sub>1 and S<sub>N</sub>2 reactions, mechanism with an example for each. Concept of elimination reactions. Example –n-butyl chloride.

Alcohols: Classification, monohydric, alcohols-distinguishing reactions for primary, secondary and tertiary alcohols.

Trihydric alcohols: Glycerol, Properties, (KHSO<sub>4</sub>, HNO<sub>3</sub>, Oxalic acid and HI)

Phenols: Acidity of phenols, Effect of substitution on acidity

Stereochemistry: Stereoisomerism, types, Fischer-projection formulae, asymmetric carbon atom, molecular dissymmetry, chirality, optical isomerism: ex. Glyceraldehyde, Lactic acid, Tartaric acid. Nomenclature of enantiomers. D- and L- system, Recemisation and resolution.

Heterogeneous and Homogenous hydrogenation of oils.

**Selected References:**

1. Basic Principles of Organic Chemistry, Roberts and Caserio, W. A. Benjamin, Inc. (1964).
2. Organic Chemistry, Morrison and Boyd, Allyn and Bacon Inc (1992).
3. Principles of Inorganic chemistry by Cotton & Wilkinson, Wiley (1999).
4. Textbook of Organic chemistry by Ahluwalia V K & Madhuri G Narosa publications (2001).
5. Physical chemistry by Castellan G W, Narosa Publications (2004).
6. Physical chemistry by Chakraborty D K, Narosa Publications (2004).

## **DEPARTMENT - BIOTECHNOLOGY**

### **MBT EL-2 FUNDAMENTAL OF BIOTECHNOLOGY**

Scope and Introduction to Biotechnology History & Introduction to Biotechnology What is Biotechnology? Definition of Biotechnology, Traditional and Modern Biotechnology, Branches of Biotechnology

Plant, Animal Biotechnology, Marine Biotechnology, Agriculture, Healthcare, Industrial Biotechnology, Pharmaceutical Biotechnology, Environmental Biotechnology.

Applications Biotechnology Applications of Biotechnology in Agriculture : GM Food, GM Papaya, GM Tomato, Fungal and Insect Resistant Plants BT Crops, BT Cotton and BT Brinjal Pros and Cons Biotechnological applications in Crop and Livestock Improvements Modifications in Plant Quality Golden Rice, Molecular Pharming, Plant Based Vaccines Ethics in Biotechnology and IPR 15 lectures

Food and Fermentation Biotechnology Food Biotechnology Biotechnological applications in enhancement of Food Quality Unit Operation in Food Processing Quality Factors in Pre processed Food Deterioration and its Control Rheology of Food Products Microbial role in food products Yeast, Bacterial and other Microorganisms based process and products Fermentation Technology Definition, Applications of Fermentation Technology Microbial Fermentations Overview of Industrial Production of Chemicals (Acetic Acid, Citric Acid and Ethanol), Antibiotics, Enzymes and Beverages

Molecular Biology - Replication DNA Replication in Prokaryotes and Eukaryotes Semi-conservative DNA replication, DNA Polymerases and its role, E.coli Chromosome Replication, Bidirectional Replication of Circular DNA molecules. Rolling Circle Replication, DNA Replication in Eukaryotes DNA Recombination – Holliday Model for Recombination Transformation

Mutation and DNA Repair Definition and Types of Mutations. Mutagenesis and Mutagens. ( Examples of Physical, Chemical and Biological Mutagens) Types of Point Mutations, DNA REPAIR Photo reversal, Base Excision Repair, Nucleotide Excision Repair, Mismatch Repair, SOS Repair and Recombination Repair.

Genetic Engineering Experimental evidences for DNA and RNA as Genetic Material. Genetic Engineering in Ecoli and other Prokaryotes, Yeast, Fungi and Mammalian Cells Cloning Vectors-Plasmids ( pBR 322, pUC) Vectors for Plant and Animal Cells, Shuttle Vectors, YAC Vectors, Expression Vectors Enzymes- DNA Polymerases, Restriction Endonucleases, Ligases, Reverse Transcriptase's, Nucleases, Terminal Transferees, Phosphatases Isolation and Purification of DNA (Genomic, Plasmid) and RNA,, Identification of Recombinant Clones

## DEPARTMENT - CHEMISTRY

Block-1	Title: Physical parameters of molecules
<b>Unit-1</b>	Thermodynamics: First and second laws of thermodynamics. Concept of entropy and free energy, entropy as a measure of unavailable energy. Entropy and free energy changes and spontaneity of process.
<b>Unit-2</b>	Chemical kinetics: Rate and order of reaction. Factor affecting the rate of reaction. And determination Order of reaction. Energy of activation and its determination. Brief account of collision and activated complex theories.
<b>Unit-3</b>	Ionic equilibria: pH scale, buffer solutions, calculation of pH of buffer solutions, buffer capacity and buffer index, buffer mixtures.
<b>Unit-4</b>	Electrochemistry: Electrolytic conductance, specific, equivalent and molar conductance, ionic mobility and transference number, factors affecting the electrolytic conductance, Arrhenius theory of strong and weak electrolytes, assumptions of DebyeHuckel theory of strong electrolytes.

Block-2	Title: Organic molecules
<b>Unit-5</b>	Introduction to organic chemistry, atomic orbitals, sigma and pi bond formation-molecular orbital (MO) method, sp, sp <sup>2</sup> and sp <sup>3</sup> hybridization, bond length, bond dissociation energies and bond angles
<b>Unit-6</b>	Electronegativity and polarity of the bonds. Classifications and reactions of organic compounds (with examples).
<b>Unit-7</b>	Biological importance of natural products: Amino acids, proteins, carbohydrates (cellulose, starch, glycogen), lipids (fats and oils, phospholipids), nucleic acids, steroids, alkaloids, vitamins, flavonoids.
<b>Unit-8</b>	Applications of synthetic products: Dyes, drugs, polymers (plastics), soaps and detergents, pesticides and pheromones.

# **DEPARTMENT – CLINICAL NUTRITION AND DIETETICS**

## **OEL - 2: NUTRACEUTICALS AND HEALTH FOODS 2 Credits**

### **BLOCK 1. NUTRACEUTICALS:**

Unit - 1: Introduction to Nutraceutical

Unit - 2: Use of Nutraceuticals in Traditional Health Sciences

Unit – 3: Functional Foods

Unit – 4: Development of Nutraceutical and Functional Foods

### **BLOCK 2: FUNCTIONAL FOODS AND NUTRACEUTICALS OF PLANT, ANIMAL AND MIRCIBIAL ORIGIN**

Unit - 5: Prebiotics and Probiotics

Unit - 6: Bio Active Peptides and Phyto- Chemicals

Unit - 7: Fats and Oils- Omega 3 Fatty Acids:

Unit - 8: Sugar Substitutes / Sweeteners

### **REFERENCES:**

- Tai Hu Guan, (2018), text book of Nutraceuticals and Health, Scitus Academics Publisher, Wilmington DE 19804, United States of America.
- Wildman REC, (2016), Handbook of Nutraceuticals and Functional Foods, 2nd edition, CRC Press publishers, Boca Raton, Florida (USA).
- Athapol Noomhorm, Imran Ahmad, Anil Kumar Anal (2014), Functional Foods and Dietary Supplements Processing, Effects and Health Benefits, first edition, published by John Wiley & Sons, Ltd. UK 111 River Street, Hoboken, NJ 07030-5774, USA
- Wildman REC, (2001) Handbook of Nutraceutical and Functional Foods, CRC Press, USA. Ghosh D et al, (2012) Innovations in Healthy and Functional Foods, CRC Press, USA. Pathak YV (2011) Handbook of nutraceuticals Volume 2, CRC Press, USA.

# DEPARTMENT - COMPUTER SCIENCE

## ELMCS- 02: E -Commerce

### BLOCK-1

**UNIT-1:** Overview of developments in Information Technology and Defining E-Commerce: The scope of E commerce, Electronic Market, Electronic Data Interchange, Internet Commerce, Benefits and limitations of E-Commerce, Produce a generic framework for E-Commerce,

**UNIT-2:** Architectural framework of Electronic Commerce, Web based E Commerce Architecture. Consumer Oriented E Commerce E-Retailing: Traditional retailing and e retailing, Benefits of e retailing,

**UNIT-3:** Key success factors, Models of e retailing, Features of e retailing. E services: Categories of e-services, Web-enabled services, matchmaking services,

**UNIT-4:** Information-selling on the web, e entertainment, Auctions and other specialized services. Business to Business Electronic Commerce

### BLOCK-2

**UNIT-5: Electronic Data Interchange:** Benefits of EDI, EDI technology, EDI standards, EDI communications, EDI Implementation, EDI Agreements, EDI Security. Electronic Payment Systems, Need of Electronic Payment System:

**UNIT-6:** Study and examine the use of Electronic Payment system and the protocols used, Study Electronic Fund Transfer and secure electronic transaction protocol for credit card payment. Digital economy: Identify the methods of payments on the net – Electronic Cash, cheques and credit cards on the Internet.

**UNIT-7: Security in E Commerce** Threats in Computer Systems: Virus, Cyber Crime Network Security: Encryption, Protecting Web server with a Firewall, Firewall and the Security Policy, Network Firewalls and Application Firewalls, Proxy Server. Issues in E Commerce Understanding Ethical,

**UNIT-8: Social and Political issues in E-Commerce:** A model for Organizing the issues, Basic Ethical Concepts, Analyzing Ethical Dilemmas, Candidate Ethical Principles Privacy and Information Rights: Information collected at E-Commerce Websites, The Concept of Privacy, Legal protections Intellectual Property Rights: Types of Intellectual Property protection, Governance.

### References:

1. Elias. M. Awad, " Electronic Commerce", Prentice-Hall of India Pvt Ltd.
2. RaviKalakota, Andrew B. Whinston, "Electronic Commerce-A Manager's guide", Addison-Wesley.
3. Efraim Turban, Jae Lee, David King, H.Michael Chung, "Electronic Commerce–A ManagerialPerspective", Addison-Wesley.
4. Elias M Award, "Electronic Commerce from Vision to Fulfilment", 3rd Edition, PHI, Judy Strauss, Adel
5. El-Ansary, Raymond Frost, "E-Marketing", 3RDEdition, Pearson Education.

# DEPARTMENT - GEOGRAPHY

## ELMG –02 Regional Geography of Karnataka (Credits – 2)

### Block-1

Physical setting - Location, Administrative divisions, Geology, Physiographic divisions of the Karnataka; Climate and Rivers; Soils and Vegetation; Irrigation in Karnataka, Major Multipurpose River Valley Projects, Major water problems and Issues - Yetthinahole, Linganamakki, Mekedatu, Krishna-Cauvery valley-linking Rivers.

### Block-2

Agriculture - Major of Crops: Rice, Jowar, Ragi, Wheat, Oil seeds, Sugarcane, Cotton, Tobacco and Coffee; Minerals Resources - Iron ore, Manganese, Bauxite, Copper, Gold; Major Power Projects - Hydrel, Thermal and Atomic Energy power plants; Industries - Cotton Textile, Silk Textile, Sugar, Iron and Steel, Cement and Paper industries, Industrial Regions of Karnataka; Transportation - Roads, Railway, Water way, Ports/Harbors and Airways; Population - growth, distribution and density

### References:

1. Directorate of Information and Tourism, Government of KarnatakaKarnataka State Gazetteer
2. Mallappa, P., (2014) Geography of Karnataka, Chethana book publishers, Mysuru
3. N.B.K Reddy & G.S. Murthy, (1967) Regional Geography of Mysore State
4. R.P. Misra, (1973) Geography of Mysore
5. Ranganath, (2018) Geography of Karnataka, Mysore Book House, Mysuru

# DEPARTMENT - MATHEMATICS

## Combinatorics and Graph Theory (ELMM –02) 2 Credits

**Block-I:** Permutations and Combinations, Pigeon-hole principle, Principle of inclusion and exclusion.

**Block-II:** Graphs, Vertices of graphs, Walks and connectedness, Degrees, Operations on graphs, Blocks – Cutpoints, bridges, Block graphs and Cutpoint graphs. Trees - Elementary properties of trees,

### Books for Reference:

1. C. L. Liu – Elements of Discrete Mathematics, McGraw-Hill, 1986.
2. Kenneth H. Rosen – Discrete Mathematics and its Applications, McGraw-Hill, 2002.
3. F. Harary – Graph Theory, Addition Wesley Reading Mass, 1969.

4. N. Deo – Graph Theory With Applications to Engineering and Computer Science, Prentice Hall of India, 1987.
5. K. R. Parthasarathy – Basic Graph Theory, Tata McGraw-Hill, New Delhi, 1994.
6. G. Chartand and L. Lesniak – Graphs and Diagrams, wadsworth and Brooks, 2nd Ed.,
7. Clark and D. A. Holton – A First Look at Graph Theory, Allied publishers.
8. D. B. West – Introduction to Graph Theory, Pearson Education Inc.,2001, 2nd Ed.,
9. J. A. Bondy and U. S. R. Murthy – Graph Theory with applications, Elsevier, 1976.

## **DEPARTMENT - MICROBIOLOGY**

### **Microbes in Sustainable Agriculture and Development**

- i. Soil Microbiology: Soil as Microbial Habitat, Soil profile and properties,
- ii. Soil formation, Diversity and distribution of microorganisms in soil.
- iii. Microbial Activity in Soil and Green House Gases- Carbon dioxide, methane, nitrous oxide, nitric oxide – production and control
- i. Mineralization of Organic & Inorganic Matter in Soil: Mineralization of cellulose, hemicelluloses, lignocelluloses, lignin and humus, phosphate, nitrate, silica, potassium .
- ii. Microbial Control of Soil Borne Plant Pathogens: Biocontrol mechanisms and ways, Microorganisms used as biocontrol agents against Microbial plant pathogens, Insects, Weeds.
- iii. Biofertilization, Phytostimulation,
- iv. Bioinsecticides: Plant growth promoting bacteria, biofertilizers – symbiotic (Bradyrhizobium, Rhizobium, Frankia),
- v. Non Symbiotic (Azospirillum, Azotobacter, Mycorrhizae, MHBs, Phosphatesolubilizers,algae),
- vi. Novel combination of microbes as biofertilizers, PGPRs
- i. Secondary Agriculture Biotechnology: Biotech feed, Silage, Biomanure, biogas, biofuels – advantages and processing parameters.
- ii. GM crops: Advantages, social and environmental aspects, Bt crops, golden rice, transgenic animals.

### **References:**

1. Eldor A. Paul. Soil Microbiology. Ecology and Biochemistry. VI Edition: Academic Press, (2007).
2. Eugene L. Madsen. Environmental Microbiology: From Genome to Biogeochemistry. I Edition, Wiley-Blackwell Publishing. (2008).
3. Agrios, G.N. Plant pathology. Harcourt Asia Pvt. Ltd. (2000).
4. Buchanan. B.B., Grissem, W. and Jones, R.L Biochemistry and Molecular Biology of Plants. I.K. International Pvt. Ltd. (2000).
5. Mehrotra R S and Ashok Agrawal. Plant Pathology. Tata Mc Graw Hill ,6th reprint (2006).
6. K. S. Bilgrami, H. C. Dube. A textbook of modern pathology. 6th Edition, Vani Educational Books, a division of Vikas, (1984).
7. K.R. Aneja .Experiments in Microbiology, Plant Pathology and Biotechnology . New Age

# DEPARTMENT - PHYSICS

## MP-EL2: Waves and Optics

### BLOCK-A:

**Unit-1: Superposition of Two Collinear Harmonic oscillations:** linearity & superposition principle. (i) Oscillations having equal frequencies and (ii) oscillations having different frequencies (Beats).

**Unit-2: Waves Motion- General:** Transverse waves on a string, travelling and standing waves on a string, normal modes of a string, group velocity, phase velocity, plane waves, Spherical waves, wave intensity.

**Unit-3: Fluids:** Surface tension: synclastic and anticlastic surface - excess of pressure - application to spherical and cylindrical drops and bubbles. viscosity - rate flow of liquid in a capillary tube - Poiseuille's formula - determination of coefficient of viscosity of a liquid.

**Unit-4: Sound:** Simple harmonic motion - forced vibrations and resonance intensity and loudness of sound, intensity levels, musical notes, musical scale, acoustics of buildings: reverberation and time of reverberation, absorption coefficient, Sabine's formula - measurement of reverberation time.

### BLOCK-B:

**Unit-5: Wave Optics:** electromagnetic nature of light, definition and properties of wave front, Huygen's Principle.

**Unit-6: Interference:** Interference: division of amplitude and division of wavefront. Young's double slit experiment, interference in thin films: parallel and wedge-shaped films, Newton's Rings: measurement of wavelength and refractive index.

**Unit-7: Diffraction:** Fraunhofer diffraction- single slit and double Slit, multiple slits and diffraction grating, Fresnel diffraction: half-period zones, zone plate, Fresnel diffraction pattern of a straight edge, a slit and a wire using half-period zone analysis.

**Unit-8: Polarization:** Transverse nature of light waves, plane polarized light – production and analysis, circular and elliptical polarization.

# DEPARTMENT -PSYCHOLOGY

## EL-2 Psychology in Everyday Life 2 Credits

### Block 1: Applications of Psychology-I

**Unit 1:** Psychology as a Profession

**Unit 2:** Memory Improving Techniques

**Unit 3:** Stress and Emotional Management

**Unit 4:** Personality Development

### Block 2: Applications of Psychology-II

**Unit 5:** Psychology in Educational Settings

**Unit 6:** Psychology in Health Setting

Unit 7: Psychology in Organizational Setting  
Unit 8: Adjustment to Family and Work Place

**References:**

1. Charles G.Morris. Albert A. Maisto Psychology an Introduction , Prentice Hall. New Jersey.
2. Feldman, A. R., Understanding Psychology IV th Ed, 1996, McGraw Hill, New Delhi.
3. Morgan, King, Weisz & Schopler, Introduction to Psychology-V11 Ed, 1993, Tata McGraw Hill, New Delhi.
4. Ernest R Hilgard, Richard C Atkinson , Rita L Atkinson Introduction to Psychology Oxford Publication, New Delhi.

## **DEPARTMENT -INFORMATION TECHNOLOGY**

### **ELMIT –02 E-Commerce (2 Credits)**

#### **Block 1: Fundamentals of E-commerce**

##### **Unit 1 : Introduction to E-commerce**

What Is E-commerce? The Difference Between E-commerce and E-business, Technological Building Blocks Underlying E-commerce: the Internet, Web, and Mobile Platform, Major Trends in E-commerce, Unique Features of E-commerce Technology

##### **Unit 2 : Types of E-commerce:**

Business-to-Consumer (B2C) E-commerce, Business-to-Business (B2B) E-commerce. Consumer-to-Consumer (C2C) E-commerce, Mobile E-commerce (M-commerce), Social E-commerce, Local E-commerce E-commerce: A Brief History, Understanding E-commerce: Organizing Themes, Academic Disciplines Concerned with E-commerce

##### **Unit 3 : E-Commerce Infrastructure**

The Internet, Technology Background , Internet – Key Technology concepts, TCP/IP, IP addresses, Domain names, DNS and URLs, Client Server Computing, Cloud computing model, Mobile platform

##### **Unit 4 : Internet and Web**

Hypertext, HTML, XML, Web servers and clients, Web browsers, Communication tools – E mail, messaging apps, online message boards, Internet Telephony

#### **Block 2: Construction of E-commerce presence**

**Unit 5: E-commerce presence** – Building an e-commerce idea, Systematic approach, Choosing software and hardware, E-commerce site tools

**Unit 6: E-commerce security** E-commerce System environment, Security threats, Technology solutions

**Unit 7: E-commerce payment systems** : Management policies, E-commerce payment systems, Electronic billing presentment and payment

**Unit 8: E-commerce Business Strategies** : E-commerce business models, Major B2C Business models, B2B Business models,

**References:**

1. Laudon, Kenneth C., and Carol Guercio Traver. *E-Commerce 2020-2021*. Pearson, 2020.
2. Laudon, Kenneth C., and Carol Guercio Traver. *E-commerce Essentials*. Pearson, 2014

## **DEPARTMENT - BOTANY**

### **Plant Diversity and Human Welfare**

Plant Diversity and its Scope Levels of biodiversity: Genetic, Species and Ecosystem; Agrobiodiversity and cultivated plant taxa and related wild taxa.

Values and uses of Biodiversity, Methodologies for valuation, Ethical and aesthetic values, Uses of plants; Ecosystem services.

Loss of Biodiversity Loss of biodiversity- causes and implications, Hot spots of biodiversity, extinction of species, projected scenario for biodiversity loss.

Management of Plant Biodiversity Organizations associated with biodiversity management, IUCN, UNEP, WWF, UNESCO, NBPGR; Methodology for execution;

Biodiversity legislation; Information management and communication.

Conservation of Biodiversity, Role of Plants in Relation to Human Welfare Conservation of genetic, species and ecosystem diversity,

In situ and ex situ conservation strategies, India's biodiversity and its conservation Social approaches to conservation,

Biodiversity awareness programmes, Sustainable development.

Importance of forestry their utilization and commercial aspects; Avenue trees; Ornamental plants of India; Alcoholic beverages; Fruits and nuts; Wood and its uses; their commercial importance.

### **References**

1. Krishnamurthy, K.V. (2004). An Advanced Text Book of Biodiversity - Principles and Practices. Oxford and IBH Publications Co. Pvt. Ltd. New Delhi
2. Singh, J.S., Singh, S.P. and Gupta, S. (2006). Ecology Environment and Resource Conservation. Anamaya Publications, New Delhi, India.
3. Reddy, K.V. and Veeraiah, S. (2010). Biodiversity and Plant Resources. Aavishkar publication, New Delhi.
4. Heywood, V. H. and Watson, R. T. (1995). Global biodiversity and Assessment. Cambridge University Press.

## **DEPARTMENT –FOOD AND NUTRITION SCIENCE**

### **OEL-2: NUTRITIONAL MANAGEMENT IN DISASTER CONDITIONS**

## **BLOCK- I: NATURAL / MANMADE DISASTERS**

Unit-1: Emergency Situations-Famine, Drought, Flood, Earthquake, Cyclone, War, Civil and Political Emergencies.

Unit-2: Nutrition in Emergencies, Nutritional Problems and Communicable Diseases.

Unit-3: Feeding Programs during Emergencies.

Unit-4: Assessment and monitoring of Nutritional Status and relief measures during emergencies.

## **BLOCK- I: NUTRITIONAL RELIEF AND REHABILITATION**

Unit-5: Assessment of Food needs in emergency situations, Food Distribution Strategy, Local food rehabilitation.

Unit-6: Special Foods/ Rations for Nutritional Relief, Organizations for Mass Feeding/ Food Distribution, and Supplementary Feeding.

Unit-7: Transportation, Storage, Feeding Centres, Sanitation, Hygiene and Identifying Reaching the Vulnerable Group.

Unit-8: Public Nutrition Approach to Tackle Nutritional and Health Problems in Emergencies, food security.

## **REFERENCES:**

Jaspars, S. & Young, H. (1996), General Food Distribution in Emergencies: from Nutritional Needs to Political Priorities. Good Practice Review 3. 1996. Relief and Rehabilitation Network, Overseas Development Institute. London.

Young H., Jaspars S., Brown R., Frize J. & Khogali H (2001), Food Security and Assessments in Emergencies: A Livelihoods Approach. Humanitarian Practice Network, Overseas Development Institute. London

**6.0 QUESTION PAPER PATTERN**

**M.A FIRST SEMESTER EXAMINATIONS .....2022**

**COURSE 1: Micro Economic Analysis 1**

Time: 3 Hours

Max. Marks: 80

**Section – A**

Answer any **four** questions. Each Question Carries **5** Marks

(4 X 5= 20)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

**Section – B**

Answer any **three** questions. Each Question Carries **10** Marks

(3 X 10= 30)

- 7.
- 8.
- 9.
- 10.
- 11.

**Section – C**

Answer any **two** questions. Each Question Carries **15** Marks

(2 X 15= 30)

12.

13.

14.

15.

**M.A THIRD SEMESTER EXAMINATIONS .....2023**

**Skill Enhancement Courses: Computer Fundamentals to Economics**

Time: 1 1/2 Hours

Max. Marks: 40

**Section – A**

Answer any **FIVE** questions. Each Question Carries **8** Marks

(5 X 8= 40)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

**FIRST SEMESTER EXAMINATIONS .....2022**

**Open Elective Courses: Economic Policies of India Since 1991**

Time: 1 1/2 Hours

Max. Marks: 40

**Section – A**

Answer any **FIVE** questions. Each Question Carries **8** Marks

(5 X 8= 40)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.