



FIRST SEMESTER B.Sc. MATHEMATICS ASSIGNMENT QUESTIONS

(For 2021 – 2022 batch July and January Cycle)

Instructions:

- ✕ Answer **All the Questions** and each question carries **05 marks**.
- ✕ Assignment on each course shall be submitted separately.
- ✕ Assignment shall be in one's own handwriting and be written in A4 size sheet.
- ✕ On the covering sheet of the assignment write your Name, Register Number, Course Title, Course Code and Date of submission.
- ✕ Facing sheet must be enclosed without fail.
- ✕ Using plastic sheets / spiral binding of assignment is strictly prohibited.
- ✕ Assignments shall be submitted on or before **30th June 2022**.
- ✕ The assignments submitted after the last date will not be considered for internal assessment marks.
- ✕ All the assignments shall be put in a single cover and to be submitted to the address given below by post or in person on or before the last date.

The Faculty
DOS in Mathematics, Vijnan Bhavan
Karnataka State Open University
Mukthagangothri, Mysore -570 006

First Semester B.Sc- Mathematics Assignment Questions

Max. Marks 20

1. If $y = (x^2 - 1)^n$ then show that $(1 - x^2)y_{n+2} - 2xy_{n+1} + n(n + 1)y_n = 0$.
2. Find the point of inflection on the curve $x = \log\left(\frac{y}{x}\right)$.
3. Test the consistency for the system $x - y + z = 2$
 $2x + 3y - z = 5$
 $3x - y + z = 0$

4. Find the Eigen values and the corresponding Eigen vectors for the matrix $\begin{bmatrix} 1 & 1 & 1 \\ 0 & 1 & 1 \\ 0 & 0 & 1 \end{bmatrix}$

KARNATAKA STATE OPEN UNIVERSITY



Department of Studies in Mathematics

Mukthagangothri, Mysore – 570 006

ASSIGNMENT OF FIRST SEMESTER B.Sc. MATHEMATICS

COURSE CODE:

COURSE TITLE:

Name of the candidate	
Roll Number	
Date of Submission	

For Office Use only

Marks Obtained	
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Signature of The Evaluator	
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