Total Number of Pages 1

Roll No.....

SECOND SEMESTER MID SEM EXAMINATION B.E. (ALL) FEB 2015

AM-111 MATHEMATICS - II

Time: 1.30 Hr

Max. Marks: 20

Note: 1. Answer ALL questions, all questions carry equal marks

- 2. Use of scientific calculator is not allowed
- 3. Assume suitable missing data if any
 - 1. Using elementary transformation, find inverse of

$$A = \begin{bmatrix} 7 & 6 & 2 \\ -1 & 2 & 4 \\ 3 & 6 & 8 \end{bmatrix}.$$

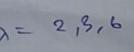
Test the consistency and solve if possible:

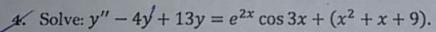
$$3w - 6x - y - z = 0$$

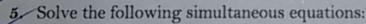
$$w - 2x + 5y - 3z = 0$$

$$2w - 4x + 3y - z = 3$$
.

3. Find the eigen values and eigen vectors of
$$A = \begin{bmatrix} 3 & -1 & 1 \\ -1 & 5 & -1 \\ 1 & -1 & 3 \end{bmatrix}.$$







$$2x' + 6x - y = 2\sin 2t$$

$$y' - 2x + 5y = 0.$$



