Hall Ticket Number:

Code No.: 21601

VASAVI COLLEGE OF ENGINEERING *(Autonomous)*, HYDERABAD
B.E. II Year I – Semester (Main) Examinations, December – 2015

Bridge Course : Mathematics

Time: **1½** hours Max. Marks: **25**

*Note: Answer **ALL** questions in **Part-A** and any **TWO** questions from **Part-B***

Part-A (5 X 1=5 Marks)

1. Find the median for the given data 5, 4, 6, 2, 1, 8, 7
2. 2 Median – 3 Mean = Mode (True / False)
3. State multiplicative law of probability.
4. Evaluate $\int xe^x dx$
5. Write the formula for volume of solid generated by revolution of a curve about y-axis.

Part-B (2 X 10=20 Marks)
(All bits carry equal marks)

6. a) Find the mode of the following data

x	1	2	3	4	5	6	7	8
f	4	9	16	25	22	15	7	2

   b) Six men in the company of 20 are post graduates. If 4 men are pick up out of 20 at random, what is the probability that a) they are all post graduates b) atleast 2 are post graduates.

7. a) Evaluate $\int_0^1 \int_0^x \int_0^{x+y} dxdydz$

   b) Find the volume of the solid generated by revolving the ellipse $\frac{x^2}{3^2}+\frac{y^2}{2^2}=1$ about x-axis.

8. a) Write the sample space when tossing two coins.

   b) Evaluate $\int_{x=0}^{2} \int_{y=1}^{e^x} dydx$

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