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Code No.: 21601 S

VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD
B.E. II Year I-Semester (Supplementary) Examinations, May/June-2016

Bridge Course : Mathematics

Time: 1½ hours

Max. Marks: 25

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

Part-A (5 X 1=5 Marks)

1. Find the mean of the following:

x:	1	2	3	4	5	6	7	8
f:	4	3	2	1	9	11	6	17

2. State additional law of probability.
3. $\sum_{i=1}^n P_i =$ _____
4. Evaluate $\int 2x \sin x^2 dx$
5. Write the formula for surface area of revolution of a curve about x-axis.

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

6. a) Compute the median for the following frequency distribution

x	1	2	3	4	5	6	7	8	9
f	8	10	11	16	20	25	15	9	6

- b) A random variable x has the following probability function

x:	1	2	3	4	5	6
P(x):	k	k-1	2k	2	-7	k-3

Find the value of k.

7. a) Evaluate $\int_{\theta=0}^{\theta=\pi} \int_{r=0}^{r=2\sin\theta} r dr d\theta$
- b) Find the area of the surface generated by revolving the arc of the catenary $y = c \cos x/c$ from $x = 0$ to $x = 4$.
8. a) Find the probability of getting 7 when throwing two dice.
- b) Evaluate $\int_{x=1}^{x=4} \int_{y=\sqrt{x}}^{y=x} y dy dx$
