MMT-008 (P)

00228

MACS (MASTERS IN MATHEMATICS WITH APPLICATIONS IN COMPUTER SCIENCE)

Term-End Examination

December, 2011

MMT-008 (P) : PROBABILITY AND STATISTICS

Time : 1½ hours *Maximum Marks : 40*

Note : *There is **one** question in this paper worth **30** marks. Remaining **10** marks are for **viva-voce**.*

1. Consider $y = (y_1, y_2, y_3)'$ having $N_3(\mu, \Sigma)$, where **30**

$$\mu = \begin{bmatrix} 2 \\ 4 \\ 1 \end{bmatrix} \text{ and } \Sigma = \begin{bmatrix} 9 & 0 & 2 \\ 0 & 4 & 0 \\ 2 & 0 & 6 \end{bmatrix}$$

write a progam in 'C' language to find the marginal distribution of y_1, y_2 and y_3. Also extend this program to find the conditional distribution of y_1 given y_2 and y_3.