

No. of Printed Pages : 2 **MMT-008(P)(Set-I)**

**M. SC. (MATHEMATICS WITH
APPLICATIONS IN COMPUTER
SCIENCE) [M. SC. (MACS)]**

Term-End Practical Examination

December, 2024

**MMT-008(P)(Set-I) : PROBABILITY AND
STATISTICS PRACTICAL**

Time : $1\frac{1}{2}$ Hours

Maximum Marks : 40

Note : (i) *There are two questions in this paper
worth 30 marks.*

(ii) *Answer both the questions.*

(iii) *The remaining 10 marks are for viva-
voce.*

[2]

1. Write a program in 'C' language to compute Hotelling's T^2 with $H_0: \mu' = [5 \ 10]$ and the data matrix : 15

$$X = \begin{bmatrix} 3 & 15 \\ 7 & 6 \\ 10 & 9 \\ 8 & 10 \end{bmatrix}$$

2. Write a program in C language to fit the model :

$$Y_i = b_0 + b_1 X_{1i} + b_2 X_{2i} + e_i,$$

where $i = 1, 2, 3, \dots, 20$ using least square method. 15

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