

May-June-2011
SE-Comp, Sem-I

Total No. of Questions—12]

[Total No. of Printed Pages—8+2

[3962]-210

S.E. (Comp./IT/Electrical/Instrumentation)

(II Sem.) EXAMINATION, 2011

ENGINEERING MATHEMATICS—III

(2008 PATTERN)

Time : Three Hours

Maximum Marks : 100

- N.B. :-**
- (i) In Section I attempt Q. No. 1 or Q. No. 2, Q. No. 3 or Q. No. 4, Q. No. 5 or Q. No. 6.
 - (ii) In Section II attempt Q. No. 7 or Q. No. 8, Q. No. 9 or Q. No. 10, Q. No. 11 or Q. No. 12.
 - (iii) Answers to the two Sections should be written in separate answer-books.
 - (iv) Neat diagrams must be drawn wherever necessary.
 - (v) Figures to the right indicate full marks.
 - (vi) Use of electronic pocket calculator is allowed (Non-Programmable).
 - (vii) Assume suitable data, if necessary.

SECTION I

1. (a) Solve the following (any three) :

[12]

(i) $(D^2 + 5D + 6)y = e^{-2x} \sec^2 x (1 + 2 \tan x)$

(ii) $(3x + 2)^2 \cdot \frac{d^2y}{dx^2} + 3(3x + 2) \frac{dy}{dx} - 36y = 3x^2 + 4x + 1$

P.T.O.



