

**S.E. (Comp./IT/Electrical/Instru.)**  
**(Second 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) Figures to the right indicate full marks.
- (v) Use of electronic pocket calculator is allowed (Non-Programmable).
- (vi) Assume suitable data, if necessary.

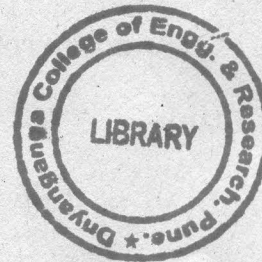
**SECTION I**

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

[12]

(i)  $(D^2 + 3D + 2)y = e^{e^x} + \cos e^x$

(ii)  $(D^2 - 4D + 3)y = x^3 e^{2x}$



P.T.O.

