

[LA 806]

APRIL 2012

Sub. Code: 3806

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

FIRST YEAR

PAPER VI – REMEDIAL MATHEMATICS

Q.P. Code : 383806

 Time : 3 hours
 (180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

Pages (Max.)	Time (Max.)	Marks (Max.)
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|---|----|----|----|
| 1. Integrate $\int \frac{dx}{x^2+5x+6}$ | 17 | 40 | 20 |
| 2. If $A = \begin{vmatrix} 2 & -1 \\ 4 & 3 \end{vmatrix}$ find $A^3 - 3A + 2A - 4I$ | 17 | 40 | 20 |

II. Write notes on:

- | | | | |
|--|---|----|---|
| 1. Find the value of a, b, c, d, e that satisfy the matrix relationship
$\begin{vmatrix} a-1 & b+3 & 3 \\ 2 & 5 & e+2 \end{vmatrix} = \begin{vmatrix} c-2 & -5 & 3 \\ d+4 & -3+c & 2 \end{vmatrix}$ | 4 | 10 | 6 |
| 2. Find the inverse of $\begin{vmatrix} 3 & -1 \\ -4 & 2 \end{vmatrix}$ | 4 | 10 | 6 |
| 3. Prove that: $\cos 20^\circ \cos 40^\circ \cos 80^\circ = 1/8$ | 4 | 10 | 6 |
| 4. Find the area of triangle (3,8), (-4,2), and (5, -1) | 4 | 10 | 6 |
| 5. Find the equation of the line through the points (-1, -2) and (-5, 2) | 4 | 10 | 6 |
| 6. Differentiate $\sin^2(3x+4)$ | 4 | 10 | 6 |
| 7. Differentiate $\{ax^3+bx^2+cx+d\}$ | 4 | 10 | 6 |
| 8. Evaluate $\int_0^1 \{x^2 - 3x^{2/3} + (1/x^2)\} dx$ | 4 | 10 | 6 |
| 9. Solve : $(D^2 + 4D + 13)y = \cos 3x$ | 4 | 10 | 6 |
| 10. Find the laplace transforms : $e^{-3t}(2 \cos 5t - 3 \sin 5t)$ | 4 | 10 | 6 |
