

FACULTY OF PHARMACY**B. Pharmacy I-Semester (PCI) (Suppl.) Examination, August 2018****Subject : Remedial Mathematics****Time : 1 ½ Hours****Max. Marks: 35****Note: Answer any one question from Part – A, any five questions from Part – B.****PART – A (1x10=10 Marks)****Answer any ONE of the following.**

1 Expand the partial fractions of $\frac{1}{(x-1)(x-2)(x-3)}$

2 Solve the following equations $x + 2y + z = 7$; $x+3z = 11$; $2x - 3y = 1$;

PART- B (5x5=25 Marks)**Answer any FIVE Questions.**

3 Prove that $7 \log \frac{16}{15} + 5 \log \frac{25}{24} + 3 \log \frac{81}{82} = \log^2$

$$\text{Det of } \begin{pmatrix} 1 & a^2 & a^2 \\ 1 & b & b^2 \\ 1 & c & c^2 \end{pmatrix} = (a-b)(b-c)(c-a).$$

5 If $y = (\cos x)^{\sin x}$ then find $\frac{dy}{dx}$?

6 Evaluate $\int \frac{(3x+7)dx}{3x^2+14x-5}$.

7 Find the Laplace Transform of $(\sin 3t \cdot \cos 2t)$

8 Evaluate $\int_0^{\pi/2} \frac{\sqrt{\sin x}}{\sqrt{\sin x} + \sqrt{\cos x}} dx = ?$

9 Find the equation of line passing through the points $(2, -2), (4, -8)$.
