

**B. PHARM.
FIRST SEMESTER
REMEDIAL MATHEMATICS
BP106RMT [REPEAT]**

**SET
A**

(PART-A : Descriptive)

Time : 1 hr. 30 min.

Marks : 35

Very Short Answer Question

1×10=10

1. Find the characteristic of $\log 14.34$
2. What is the range of $f(x) = x^2, x \in N$?
3. What is $\lim_{x \rightarrow 0} \frac{\sin x}{x}$?
4. What is the value of $\log_2 32$?
5. What is the transpose of $A = \begin{bmatrix} -2 & 1 \\ 0 & 5 \end{bmatrix}$?
6. What is the value of $\begin{vmatrix} 3 & 5 \\ 4 & -1 \end{vmatrix}$?
7. What is the derivatives of $\cos cx$?
8. What is the integral of $\frac{1}{x}$?
9. What is non-singular matrix?
10. What is partial fraction?

(PART-B : Descriptive)

[Answer any five (5) questions]

1. Resolve into partial fraction $\frac{2}{(x-2)^2(x+3)}$ 5

2. Evaluate $\lim_{x \rightarrow 3} \frac{x^2 - 5x + 6}{x^2 - 4x + 3}$ 5

3. If $A = \begin{bmatrix} 2 & 0 & 1 \\ 2 & 1 & 3 \\ 1 & -1 & 0 \end{bmatrix}$ then find $A^2 - 5A + 6I$ 5

4. Solve 5
 $x - y + 2z = 7$
 $3x + 4y - 5z = -5$
 $2x - y + 3z = 12$

5. Evaluate derivatives 5
 $y = \sqrt{\frac{(x-1)(x-2)}{(x-3)(x-4)(x-5)}}$

6. Integrate 5
 $\int \frac{2x-1}{(x-1)(x+2)(x-3)} dx$

7. Find the domain and range of $f(x) = \sqrt{9-x^2}$ 5