



Dr. Babasaheb Ambedkar Technological University

Vidyavihar, Lonere, Dist. Raigad

END SEMESTER SUPPLEMENTARY THEORY EXAMINATION SUMMER-2022

Center Code: 5448

Course: F.Y.B.Pharm

Semester: I

Date: 13/09/2022

Time: 2:15 PM to 4:15 PM

Marks: 35

Subject: Remedial Mathematics

Subject Code: BP106RMT

Q.1 Attempt any one of the following.

[10x1=10 Marks]

(1) Solve the following System of equations:

$$\begin{aligned}x + y + z &= 6 \\2x + 3y - z &= 5 \\6x - 2y - 3z &= -7\end{aligned}$$

Using crammers rule.

(2) Find equation of line passing through the point $(-2, 0)$ and perpendicular to the line to the line $4x-3y=2$

Q.2 Attempt any FIVE of the following.

[5X5=25 Marks]

(1) If the line passes through the point $(2, 1)$ and having slope $\frac{3}{2}$ find equation of line.

(2) If $y = \cos x \cdot \log x$. find $\frac{dy}{dx}$

(3) Resolve into Partial fraction $\frac{3X+1}{(X-2)(X+1)}$

(4) Find $L\{t \sin t\}$

(5) Find Partial fraction of $\frac{x-2}{(x-3)(x-4)(x-5)}$.

(6) Find Sum and product of Eigen values of $A = \begin{bmatrix} 1 & 2 & 2 \\ 2 & 1 & 2 \\ 2 & 2 & 1 \end{bmatrix}$

(7) Prove that: $2\log\left(\frac{15}{18}\right) - \log\left(\frac{25}{162}\right) + \log\left(\frac{4}{9}\right) = \log 2$.