Home Assignment (Set – 01)

Differential Equations

Paper Code : Core – 2.2

B.A. / B.Sc. 2nd Semester (Honours)

Solve the following Ordinary Differential Equations :

1. $\frac{d^2y}{dx^2} - 7\frac{dy}{dx} + 12y = 0$

2. $9\frac{d^2y}{dx^2} + 18\frac{dy}{dx} - 16y = 0$

3. $(D^3 - 3D + 2)y = 0$

4. $\frac{d^4y}{dx^4} - m^4y = 0$

5. $\frac{d^3y}{dx^3} - 8y = 0$

6. $\frac{d^3y}{dx^3} - 13\frac{dy}{dx} + 12y = 0$

7. $\frac{d^3y}{dx^3} - 3\frac{d^2y}{dx^2} + 4y = 0$

8. $(D^4 + m^4)y = 0$

9. $(D^2 + 2D + 5)y = 0$

10. $(D^3 - D^2 - D + 1)y = 0$

11. $(D^3 - 4D^2 + 5D - 2)y = 0$

12. $(D^4 - 4D^3 + 8D^2 - 8D + 4)y = 0$

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