NARSIMHAREDDY ENGINEERING COLLEGE

(UGC AUTONOMOUS)

Hall Ticket No.: | | | | | | | | | | |

I B.Tech II Semester (NR23) I Assignment Examinations, March 2025

SUBJECT NAME (SUBJECT CODE)
(Name of the Department)

Date:XX-XX-2025 Time: 03:00PMto 04:00PM Max.Marks:10

CO1	Find the solutions of first order first degree differential equations and their applications.
CO2	Solve higher differential equation and apply the concept of differential equation to real world problems.
CO3	Use the Laplace transforms techniques for solving ordinary differential equations.
CO4	Calculate gradient of scalar point function and divergence, curl of vector point function.
CO5	Evaluate the line, surface and volume integrals and converting them from one to another.

Q.No	Question	Marks	CO	BT	PO
1	Solve $2xydy-(x^2-y^2+1)dx=0$	5M	CO1	L1	PO 1
2	Solve $(y-xy^2)dx-(x+x^2y)dy=0$.	5M	CO1	L1	PO 1
3	Solve $x^2ydx-(x^3+y^3)dy=0$	5M	CO1	L2	PO 1
4	Solve $(3x^2y^4+2xy)dx+(2x^3y^3-x^2)dy=0$	5M	CO1	L1	PO 2
5	Solve $x\frac{dy}{dx}+y=x^2y^6$	5M	CO1	L2	PO 1
6	Solve $(x^3+3xy^2)\,dx+(y^3+3x^2y)\,dy=0$	5M	CO1	L1	PO 2
7	If the temperature of the air is 20°C and the temperature of the body drops from 100°C to 80°C in 10 mins. What will be its temperature after 20 mins? When the temperature will be 40°C?	5M	CO1	L2	PO 2
8	If 30% of a radioactive substance disappears in 10 days, how long will it take for 90% of it to disappear?	5M	CO1	L2	PO 1
9	Solve $p^2+2py\cot x=y^2$ for p.	5M	CO1	L1	PO 2
10	Solve $xlogx\frac{dy}{dx}+y=2logx$	5M	CO1	L1	PO 2

BT: **L1**-Remembering, **L2**-Understanding, **L3**-Applying, **L4**-Analyzing, **L5**-Evaluate, **L6**-Create.