1. Find the order of the differential equation y'-20y+2=0.

a) 2
b) 8
c) 0

2. Find the order of the D.E $\frac{7d^2y}{dx^2} - \frac{6dy}{dx} = 1$

a) 4
b) 2
c) 3
d) 1

3.Find the order and degree of the differential equation y"'-$(4y')^3$=0

a) Order -3, Degree-1
b) Order -1, Degree-3
c) Order -2, Degree-1
d) Order -3, Degree-2

4. Find the order of the differential equation dy/dx+15 cosx=0.

a) 4
b) 3
c) 2
d) 1

5. Find the degree of the differential equation y"-12cosec y=0.

a) 1
b) 2
c) 4
d) Not defined

6. Find the order and degree of the differential equation 7y'-3y=0.

a) Order -1, Degree-2
b) Order -2, Degree-3
c) Order -1, Degree-1
d) Order -3, Degree-2

7. Find the degree of the D.E $\frac{d^2y}{dx^2} + 5cot(\frac{dy}{dx}) = 0$

a) five
b) three
c) two
d) not defined

8. Find the order and degree of the differential equation $(y''')^2$+7$(y')^2$-$(cosx)^2$=0

a) Order- 0, Degree-2
b) Order- 3, Degree-2
c) Order- 3, Degree-3
d) Order- 1, Degree-2

9 Find the degree of the D.E ($\frac{d^2y}{dx^2}$)-3 tanx=0.

a) 2
b) 1
c) 3
d) 4

10. Find the order of the differential equation $\frac{9d^2y}{dx^2} - \frac{7dy}{dx} + y^6 = 0$

a) 3
b) 1
c) 4
d) 2

11.Find the general solution of the differential equation dy/dx=5x2+2.
a) $10x^3+12x-3y^2+C=0$
b) $12x-3y^2+C=0$
c) $10x^3+12x-y^2+C=0$
d) $10x^2-3y^2+C=0$

12.

Find the general solution of the differential equation $\frac{dy}{dx} = \frac{y-3}{x-3}$ (x, y≠3).

a) x-3=0
b) y-3=0
c) y+3=0
d) x-3y=0

13. Find the general solution of the differential solution dy/dx=2−x+x3.
a) $x^4-2x^2-4y+C=0$
b) $x^4-2x^2+C=0$
c) $2x^2+4x-4y+C=0$
d) $x^4-2x^2+4x-4y+C=0$

14.

Find the general solution of the differential equation $\frac{dy}{dx} = \frac{3\ sec\ y}{2\ cosec\ x}$.

a) 3 cosx-2 cosy=C
b) 3 sinx+2 siny=C
c) 3 cosx+2 tanx=C
d) 3 cosx+2 siny=C

15.

Find the general solution of the differential equation $\frac{dy}{dx} = \frac{2+x^3}{4-y^3}$.

a) $x^3-y^3-4y+C=0$
b) $x^4+8x+y^4-16y+C=0$
c) $2x+y^4-4y+C=0$
d) $x^3+2x+C=0$

16. Find the general solution of the differential equation $dy/dx=3e^x+2$
a) $y=3e^x+2x+C$
b) $y=3e^x-2x+C$
c) $y=2e^x+3x+C$
d) $y=2e^x-3x+C$

17.Find the particular solution of the differential equation $dy/dx+2x=5$ given that y=5, when x=1.

a) $y=5x+x^2+1$
b) $y=x-x^2+4$
c) $y=5x-x^2+1$
d) $y=5x-x^2$

18. Find the particular solution of the differential equation dy/dx+8x=16x2+4 given that y=1/3 when x=1.

a) $y=\frac{(2x+1)^2}{3}$
b) $y=\frac{(4x+1)^2}{12}$
c) $y=\frac{(4x-2)^2}{3}$
d) $y=\frac{(2x-1)^2}{3}$

19. Find the particular solution for the differential equation $dy/dx=3x^2/7y$ given that, y=1 when x=1.

a) $7x^2=2y^3+5$
b) $7x^3=2y^2+5$
c) $7y^2=2x^3+5$
d) $2y^2=5x^3+6$

20.

Find the particular solution of the differential equation $\frac{dy}{dx} = \frac{9y\ logx}{5x\ logy}$.

a) $(logy)^2+(logx)^2=0$
b) $(logy)^2-(logx)^2=0$
c) logy-logx=0
d) 2 logx+logy=0,

Answers-1.(d) 2.(b) 3.(a) 4.(d) 5.(a) 6.(c) 7.(d) 8.(b) 9.(b) 10.(d)

11.(a) 12.(b) 13.(d) 14.(d) 15.(b) 16.(a) 17.(c) 18.(d) 19.(c) 20.(B).