BVM College of Management Education Gwalior

Question Bank

Differential Equations

BCA 501

Q.1   Eliminate the arbitrary constants a & b from the equation y=a cos mx+ b sin mx.

Q.2   Show that $Ax^2+By^2=1$ is the solution of $x[yd^2y/dx^2+(dy/dx)^2]=ydy/dx$

Q.3   Solve $dy/dx=(1+y^2)/(1+x^2)$

Q.4   Solve dy/dx+2y/x=sinx

Q.5   Solve $dy/dx+(x/(1+x^2))y=1/2x(1+x^2)$

Q.6   Solve $dy/dx=y/x=y^2$

Q.7   Solve $dy/dx=e^{(x-y)}(e^x-e^y)$

Q.8   Solve dy/dx=(x+y)/(x-y)

Q.9   Solve $dy/dx=x^2ydx-(x^3+y^3)dy=0$

Q.10   Solve (x+2y-3)dy=(x+2y-3)dx