

B.C.S.Govt.P.G.College, Dhamtari

Annual Assignment -2019-20

Class- BCA-I Year / BCA II Year

Subject-Bridge Course

Max Marks- 50

Date- 10/10/2020

Note – All Question compulsory

Qu.1 Evaluate:-
$$\begin{vmatrix} 1 & 2 & -3 \\ 0 & 5 & 7 \\ 8 & 7 & 10 \end{vmatrix}$$

Qu.2 Prove by the method of induction

$$1 + 2 + 3 + \dots + n = \frac{n(n+1)}{2}$$

Qu.3 Prove that $\cos^2 \theta - \sin^2 \theta = 1 - 2\sin^2 \theta = 2\cos^2 \theta - 1$

Qu.4 Find the equation of the Curve in Cartesian co-ordinates, whose parametric equation is

$$x = a \cos^3 t$$

$$y = a \sin^3 t$$

Qu.5 Find standard deviation of the set of numbers-

$$\{ 3, 4, 9, 11, 13, 6, 8, 10 \}$$