

ANNUAL EXAMINATION 2020

(Only for Regular Students)

Centre No. 135
Class-BCA-I, II(New and old course), III

Centre Name- Disha College, Raipur (C.G.)
Subject- Bridge Course
Paper Name- Bridge Course
Max M.-50 Min M.- 17

Time- 3 hrs.

Note:-Attempt any two parts from each unit. All carry equal marks.

UNIT-I

- Q1 To resolve $\frac{2x-3}{x^2+7x+12}$ into partial fraction.
- Q2 In an A.P. the sum of 30 terms is 1635. Its last term is 98, then find first term and common difference

Q3 Evaluate the determinant : $A = \begin{vmatrix} 1 & 2 & 3 \\ 2 & 4 & 4 \\ 3 & 6 & 5 \end{vmatrix}$

UNIT-II

- Q1 Find the value of $(x^2 + 2a)^5$ with the help of binomial theorem.
- Q2 ${}^nC_{r-1} + {}^nC_r = {}^{n+1}C_r$
- Q3 How many different words can be made by the word CHHATTISGARH ?

UNIT-III

- Q1 If $\tan\theta = \frac{3}{4}$, then find the values of $\sin\theta$ and $\sec\theta$.
- Q2 Find the value of $\sin 30^\circ + \cos 60^\circ + \tan 45^\circ + \tan 135^\circ$
- Q3 The angle of elevation of the top of a tower of a point on the ground is 30° . If on walking on 20 meters towards the tower, the angle of elevation becomes 60° , then find the height of tower.

UNIT-IV

- Q1 Find the locus of a point so that the join of (-5,1) and (3,2) subtends a right angle at the moving point.
- Q2 Find out the gradient of the line passing through the points, (3, -2) and (-6, -5).
- Q3 Find the obtuse angle between the lines $x - 2y + 3 = 0$, $3x + y - 1 = 0$

UNIT-V

- Q1 Calculate the arithmetic mean for the following table.

Class Interval	0-20	20-40	40-60	60-80	80-100
Frequency	2	7	10	3	3

- Q2 The scores of batsman in ten innings are 38,70,48,34,42,55,63,46,54,44. Find the mean deviation about the median.
- Q3 Find the variance and standard deviation for the following data:
65,68,58,44,48,45,60,62,60,50