647510 **1101101E1050** **Seat No :_____**

B.B.A. Semester - 1 (*CBCS*) Examination
Feb/Mar. -2021 (OLD COURSE)
ELEMENTS OF BUSINESS MATHEMATICS (ELECTIVE/ALLIED)

Time: 1:30 Hours **Marks: 42**

Instructions:

1. Figures to the right indicate marks.
2. There are five questions in the question paper.
3. Answer any three of the following questions.

Q.1 (A) Find n if $2^{n+1} P_{n-1} : 2^{n-1}P_n = 3:5$ (07)

(B) How many different words can be permuted by using all the letters of the following words: (1) PERMUTATIONS (2) PROBABILTY (3) COMMITTEE. (07)

Q.2 (A) The sixth term of an A.P. is 121. Find the sum of its first 11 terms. (07)

(B) The product of three numbers in G.P. is 729 and sum of their squares is 819. Find the numbers. (07)

Q.3 (A) State binomial theorem and give its characteristics. (07)

(B) If the middle term in the expansion of $\left(\frac{k}{2}+2\right)^8$ is 1120. Find the value of k. (07)

Q.4 (A) Explain the meaning of interpolation and extrapolation. (07)

(B) By using NBIF estimate the value of y when x=26. (07)

X	10	15	20	25	30
Y	20	45	115	210	225

Q.5 (A) Find T_n is $S_n = 2n^2+3n$. Also find T_{20}. (07)

(B) Find the sum of n terms of (1)(4)+(3)(7)+(5)(10)+…… (07)

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