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GURUDAS COLLEGE

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Date: 10.12.2020

Internal Examination 2020
B.Com Sem III (Hons. And General)
Subject- Business Maths and Statistics
Paper –GE 3.1Chg

Full Marks: 20

Time : 1hr

1. Answer the following questions (**any five**)

2 x 5 = 10

- (i) Write down two uses of rank correlation.
- (ii) In how many ways 8 Indians, 4 American and 4 Englishman can be seated in a row so that all person of the same nationality seat together?
- (iii) If $\log_2 x = 7$, then find the value of x.
- (iv) Let A and B be two finite sets such that $n(A) = 20$, $n(B) = 28$ and $n(A \cup B) = 36$, find $n(A \cap B)$.
- (v) What do you mean by conditional probability?
- (vi) Write down two basic problems involved in the construction of index numbers.
- (vii) If $A = \{a, b, d, e, f, g\}$ and $B = \{c, e, f\}$ then find $A - B$.

2. Answer the following questions (**any two**)

5 x 2 = 10

- (i) If 10 consecutive days are chosen at random, what is the probability that two of them will be Saturdays?
- (ii) $\log_7 (x - 2) + \log_7 (x + 3) = \log_7 14$, then find the value of x.
- (iii) In a group of 60 people, 27 like cold drinks and 42 like hot drinks and each person likes at least one of the two drinks. How many like both coffee and tea?