**SAINTGITS COLLEGE OF APPLIED SCIENCES**

 **PATHAMUTTOM, KOTTAYAM**

**FIRST INTERNAL EXAMINATION, FEBRUARY 2020**

**Department of Business Administration, Semester II**

**STATISTICS FOR MANAGEMENT**

Total : 50 **marks** Time: **2 hours**

**Section A**

*Answer any 5 questions. Each question carries 2 marks.*

1. Explain different approaches to probability

2. A die is thrown. Find the probability of getting 1) a face 4 2) an even number 3) 3 or 5 4)

 Less than 3

3. If P(A)=1/13,P(B)=1/4 and P(AUB)=4/13.Find P(AnB)

4. If P(A)=1/13 P(B)=1/4 and P(AnB)=1/52 Find 1) P(A/B) 2) P(B/A)

5. State Bayes Theorem

6. What are the theoretical basis of Sampling

**Section B**

*Answer any 5 questions. Each question carries 5 marks.*

7.there are 4 men and 3 women. Find the probability of selecting of which 1) exactly two

 are women 2) nowomen 3) at least one women 4) at least two women 5) at most 2

 women

8.State and prove Addition theorem of Probability

9.The probability that a doctor will diagnose a particular disease correctly is 0.6. The probability that a patient will die by his treatment after correct diagnosis is 0.4 and the probability of death by wrong diagnosis is 0.7. What is the probability that his disease was not correctly diagnosed?

10.Criteria for choosing Sampling method or Census method

11A speaks truth in 70% cases and B in 85%cases. In what percentage of cases are they likely to contradict each other in stating the same fact.

12Two unbiased dice are thrown. Find the probability that 1) both the dice show the same number 2) one die shows five 3) first die shows five 4) the total of the number on the dice is eight 5) a sum of 10

**Section C**

*Answer any 1 questions. It carries 15 marks.*

13. One bag contains 4 white and 2 black balls. Another contains 3 white and 5 black balls. One ball is drawn from each bag. Find the probability that both are of same colour.

14. Bag A contains 2 white and 4 black balls. Anotherbag B contains 5 white and 7 black ball. A ball is transferred from the bag A to bag B. Then a ball is drawn from bag B. Find the probability that it will be white.



*[Scan QR code for Answer Key]*