

18103003

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Reg. No.....

Name.....

B.B.A. DEGREE (C.B.C.S.) EXAMINATION, JUNE 2018

Second Semester

Complementary Course—STATISTICS FOR MANAGEMENT

(2017 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part A

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

1. Define sample space.
2. Define mutually exclusive events.
3. Define random variable.
4. What is a random sample ?
5. Define Poisson distribution.
6. What is quota sampling ?
7. Define standard error.
8. Define a parameter.
9. Define null hypothesis.
10. Define level of significance.
11. Define sampling frame.
12. Distinguish between a large and a small sample.

(10 × 2 = 20 marks)

Part B

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

13. If odds in favour of A solving a problem are 2 : 3 and odds against B solving the same problem are 3 : 5. Find the probability for :
 - (a) A solving the problem.
 - (b) B solving the problem.

Turn over

14. If $P(A) = 0.5$, $P(B) = 0.2$, $P(A \cap B) = 0.1$. Find $P(A/B)$ and $P(B/A)$.
15. State Baye's theorem.
16. Distinguish between census and sampling.
17. Write the properties of Normal distribution.
18. What are the uses of 't' distribution ?
19. What are the procedure for testing hypothesis ?
20. If 3 % of electric bulbs manufactured by a company are defective, find the probability that in a sample of 100 bulbs, exactly five bulbs are defective.
21. Explain the procedure for testing goodness of fit.

(6 × 5 = 30 marks)

Part C

*Answer any two questions.
Each question carries 15 marks.*

22. Describe the features of binomial, Poisson and normal distributions.
23. What are the various methods of selecting samples ?
24. The average life of 16 bulbs were found to be 1,200 hours with a standard deviation of 150 hours. Test whether these bulbs could be considered as a random sample from a normal population with mean 1,300 hours ?
25. Test whether son's eye colour and father's eye colour are associated with the help of the data given below :

		<i>Eye colour of Son</i>	
		<i>Not light</i>	<i>Light</i>
<i>Eye colour of Father</i>	<i>Not light</i>	230	148
	<i>Light</i>	151	<u>471</u>

(2 × 15 = 30 marks)