QP CODE: 24802104

24802104

Reg No : .....

Name : .....

I.M.C.A DEGREE EXAMINATION, MARCH 2024

First Semester

Faculty of Technology and Applied Sciences

I M C A

CORE - IMCA1C03 - STATISTICS

2020 ADMISSION ONWARDS

69A142A2

Time: 3 Hours Maximum: 75 Marks

Part A

*Answer any **ten** questions*

*Each question carries **3** marks*

1. What are the different stages in a statistical investigation?
2. What is mean by secondary data? Explain.
3. What is mean by tabulation of data?
4. Explain line diagram?
5. What are rules for drawing graph?
6. Explain simple bar diagram.
7. If a sample of size 22 items has a mean of 15 and another sample of size 18 items has a mean of 20, find the mean of combined sample.
8. Compare between relative measures and absolute measures of dispersion.
9. Define moments.
10. Find out Karl pearson's coefficent of skewness, given mean 58, median as 62 and SD as 16.
11. Enumarate dfferent types of correlation
12. Sate the merits of Rank correlation

(10×3=30 marks)

Part B

*Answer **all** questions*

*Each question carries **9** marks*

13. a) What are the advantages and disadvantages of statistics

OR

b) Explian methods to collect primary data.

14. a)

Draw a pie diagram

Items of Expenditure	**Food**	**Clothing**	**House rent**	**Education**	**Fuel**	Others
Expenditure	210	130	100	70	40	50

OR

b)

Draw the frequency Curve

Marks	10-20	20-30	30 - 40	40 - 50	50 - 60	60 - 70
No. of students	5	8	15	20	12	7

15. a)

Calculate mean

Class	20 -29	30 -39	40 -49	50 -59	60 -69
Frequency	10	8	6	4	2

OR

b)

Obtain the standard deviation of the following data

Score	0 -10	10-20	20-30	30-40	40-50	50-60	60-70
No of students	10	15	25	25	10	10	5

16. a) For a moderately skewed distribution, arithemetic mean = 160,mode =15.7 and SD =50 Find Coeffcent of variation , coefficent of skewness and median

OR

b) **Find out measure of skewness and kurtosis of the data given below**

Income	**20 - 40**	**40 - 60**	**60 – 80**	**80 - 100**
No. of persons	**2**	**4**	**3**	**1**

17. a) The coefficient of rank correlation of the marks obtained by 10 students in statistics and accountancy was 0.2.It was later discoverd that the difference in ranks in the two subjects of one of the student was wrongly taken as 7 insead of 9.Find the correct result.

OR

b) **From the following data of the age age of Husband and age of wife , form the two regression equations and calculate the Husband's age when wifes age is 23**

Husband’s age	**36**	**26**	**27**	**28**	**28**	**29**	**30**	**31**	**33**	**35**
Wife’s age	**29**	**20**	**25**	**23**	**24**	**26**	**24**	**28**	**26**	**32**

(5×9=45 marks)