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Question Paper Code: CMB005

Jawaharlal Nehru Technological University Hyderabad

MBA I Semester End Examinations (Regular) - Regular, 2018

Regulation: .–R16

STATISTICS FOR MANAGEMENT

(Master of Business Administration)

Time: 3 Hours **Max Marks: 70**

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the question must be answered in one place only

UNIT – I

1. (a) Explain the application of statistics in business and management. [7M]
   (b) Explain the functions and limitations of statistics. [7M]
2. (a) Explain the stages involved in a statistical investigation. [7M]
   (b) Define statistics. Explain distrust of statistics [7M]

UNIT – II

3. (a) Calculate the mode of the following distribution by the grouping method. [7M]

Table 1

Weight (lbs)	No of students
Below 100	4
Below 110	6
Below 120	24
Below 130	46
Below 140	67
Below 150	86
Below 160	96
Below 170	99
Below 180	100

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(b) The Table 2 shows the distribution of weights of 60 individuals. If the mean weight is 110.917, find the missing frequencies [7M]

Table 2

Weights	No of people
93-97	2
98-102	5
103-107	12
108-112	?
113-117	14
118-122	?
123-127	3
128-132	1
Total	60

4. (a) Calculate the Karl Pearson's coefficient of skewness from Table 3. [7M]

Table 3

X	F
12.5	28
17.5	42
22.5	54
27.5	108
32.5	129
37.5	61
42.5	45
47.5	33

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(b) Compute the range, quartile deviation coefficient of quartile deviation from Table 4. [7M]

Table 4

Wages(Rs. Per day)	F
Less than 35	14
35-37	62
38-40	99
41-43	18
Over 43	7

UNIT – III

5. (a) Explain the different types of 2 dimensional diagrams. [7M]
   (b) Draw a histogram and frequency polygon for the data shown in Table 5. [7M]

Table 5

Profit	No of shops
0-100	12
100-200	18
200-300	27
300-400	20
400-500	17
500-600	6

6. (a) Discuss the advantages and limitations of diagrammatic presentation of statistical data. [7M]
   (b) Represent the data by a subdivided bar diagram [7M]

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Table 6

Year	Marine	Inland	Total
1998-99	26.96	26.02	52.98
1999-00	28.52	28.23	56.75
2000-01	28.11	28.45	56.56
2001-02	28.30	31.20	59.56
2002-03	29.90	32.10	62.00
2003-04	29.41	34.58	63.99
2004-05	27.78	35.26	63.04
2005-06	28.16	37.55	65.71
2006-07	30.24	38.45	68.69

UNIT – IV

7. (a) Explain the significance of ANOVA and explain the techniques for one way and two way classifications. [7M]

   (b) Calculate the Karl Pearson's coefficient of correlation and interpret the value for series shown in Table 7. [7M]

Table 7

Price(Rs)	Demand(Kgs)
10	420
11	410
12	400
13	310
14	280
15	260
16	240
17	210
18	210
19	200

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8. (a) Explain scatter diagrams, Karl Pearson's correlation and Spearman's rank correlation . [7M]

   (b) A certain drug is claimed to be effective I curing cold .In an experiment of 500 persons with cold, half of them were given the drug and the other half were given sugar pills.The patient's reaction to the treatment are recorded as shown in Table 8: [7M]

Table 8

	Helped	Harmed	No effect	Total
Drug	150	30	70	250
Sugar Pills	130	40	80	250
Total	280 70	150	500	

Can it be concluded that there is a significant difference in the effect of the drug and sugar pills.

UNIT – V

9. (a) Explain the properties of regression co-efficients .Explain the calculation procedure of regression. [7M]

   (b) For the data given in Table 9. Calculate the index number by taking 200 as the base year.pg [7M]

Table 9

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Price of commodity X	4	5	6	7	8	10	9	10	11

10. (a) Explain the components of time series. [7M]

    (b) Compute the 2 regression co efficients , equations and the correlation coefficient for data shown in Table 10. [7M]

Table 10

X	Y
7	6
4	5
8	9
6	8
5	2

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