

B.C.C.A. (CBCS Pattern) Sem-III  
**UBCCAT301 - Statistics Technique and Business Mathematics-I**

P. Pages : 2

Time : Three Hours



**GUG/W/22/10626**

Max. Marks : 80

- Notes : 1. All questions are compulsory.  
2. All questions carry equal marks.

1. a) What do you mean by statistics? Explain importance of statistics. 8  
b) From the following data. Calculate Geometric mean and Harmonic mean 8

Size	40-49	50-59	60-69	70-79	80-89
F	10	70	189	60	38

**OR**

- c) From the following data. Calculate mean, median and mode. 16

Temp °C	-40 to -30	-30 to -20	-20 to -10	-10 to 0	0 to 10	10 to 20	20 to 30
No of pays	10	28	30	42	65	180	10

2. a) Find out mean deviation from mean and median from the following data. 8

Size	5	10	15	20	25	30	35
F	2	8	19	24	17	12	10

- b) The data of height of 10 students are given below calculate Karl Pearsons co-efficient of skewness. 8

Height in Inches	53	55	54	57	55	59	55	57	55	50
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**OR**

- c) A purchasing agent obtained samples of lamps from two suppliers he had tested samples in his own laboratory for length of lite. Find which co. lamps are more uniform. 16

Length of life in hours	700-900	900-1100	1100-1300	1300-1500
Co. A (F)	15	25	30	20
Co. B (F)	6	50	25	9

3. a) From the following information find out co-efficient of correlation. 8

$$N = 60, \Sigma tdx = 42, \Sigma tdy = 12;$$

$$\Sigma tdx^2 = 72, \Sigma tdy^2 = 70 \text{ and } \Sigma tdx dy = 37$$

- b) Calculate coefficient of concurrent Deviations from the given data. 8

No. of workers	300	350	400	450	500	550
No. of butes consumed	30	32	33	35	40	50

**OR**

- c) Calculate the coefficient of correlation between the family income and it's percentage spent on food. 16

Family income (Rs.)					
Food expd in %	200-300	300-400	400-500	500-600	600-700
10-15	-	-	-	3	7
15-20	-	4	9	4	3
20-25	7	6	12	5	-
25-30	3	10	19	8	-

4. a) Nihar bought a mobile for Rs. 40,000 and sold to Nilesh at a profit of 12%, Nilesh earned 18% profit on it and sold it to Hitendra. Hitendra sold it to earn profit 20%, at what price he should be sale the mobile. 8
- b) A village has a population of 25,000 of which 70% are males and rest females. If 30% of the females are married find out the % of married males. 8

**OR**

- c) Mr. Gopal marked his goods at a price 40% above the cost price but gives discount at 20% on marked price. Find out the loss or gain percentage. 8
- d) Mr. Diwakar purchased a cooler for 10,000 and sold it to Mr. Manoj at a profit of 10%. Mr. Manoj then sold it to Mr. Prakash at a profit of 5%. How much percent more did Mr. Prakash pay than Mr. Diwakar. 8

5. Write answer in short.

- a) Write the scope of statistics. 4
- b) Write the note on positive skewness and negative skewness. 4
- c) Write the method of correlation. 4
- d) Explain the term profit and loss with example. 4

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