Lok Mahavidyalaya, Wardha

नमुना प्रश्नपत्रिका

Class :- B.Com 1 (Sem. II)

Sub:- Statistics And Business Mathematics

Time :- 3:00 hours   Total Marks:- 80

N.B. (1) All questions are compulsory.

(2) All questions carry equal marks.

Q. 1 **(a)** सांख्यिकी म्हणजे काय? सांख्यिकीचे महत्व विशद करा.   (**8**)

(b) Find out Geometric Mean from the following deta.   (**8**)

Marks :-	10,	20,	30,	40,	50,	60
Frequency :-	12	15	25	10	6	2

OR

(c) Calculate the Mean, Median and Mode from the following series.

Marks	No. of Students
10 - 15	10
15 - 17.5	15
17.5 - 20	17
20 - 25	20
25 - 30	25
30 - 35	28
35 - 40	30
40 - 50	40
50 - 60	12

(**16**)

Q. 2 (a) अपकिरण म्हणजे काय ? अपकिरण मोजमापाच्या विविध पध्दती स्पष्ट करा.   (**8**)

(b) Calculate Mean deviation from median

Marks :- 10, 15, 18, 20, 20, 22, 23, 25, 27, 30   (**8**)

OR

(c) Following are the share prices of company A and company B for the previous 10 months. Find out which companies shares prices are stable and which companies share prices are more variables.   (16)

Shares prices of co. A (x) :	- 58,	60,	52,	53,	56,	59,	52,	50,	51,	45.
Shares prices of co. B (y):-	110	107	105	105	106	107	104	103	108	101

Q. 3 (a) Calculate Bowley's co-efficient of skewness from the following data.

Size of item :-	6,	7,	8,	9,	10,	11,	12
Frequency :-	3,	6,	9,	13,	8,	5,	4

(b) From the information given below, calculate the Karl Pearson's and Bowley's co-efficient of skewnesss.

Measures	'A'	'B'

Mean	256.5	240.8
Median	201.0	201.6
Standard deviation	215.4	181.1
Third Quartile	260.0	242.0
First Quartile	157.0	164.2

(8)

OR

(c) Calculate Karl Pearson's co-efficient of Skewness from the following data.

Income (In Rs)	No. of Persons.
100 – 200	15
100 – 300	33
100 – 400	58
100 – 500	98
100 – 600	136
100 – 700	170
100 – 800	192
100 – 900	197
100 – 1000	200

(16)

Q. 4 (a) Find out the difference between simple interest and Compound Interest on Rs. 5,00,000 for two years at the rate of 12% p.a. **(8)**

(b) Two brothers have their income in the ratio of 8:5 and the expenditure in the ratio of 5:3. If saving of 1st brother is Rs. 24000 and that of 2nd brother Rs. 20000.
Find out income and expenditure of both them. **(8)**

OR

(c) 50% students failed in English and 40% failed in Maths. If 20% students failed in English and Maths (both). Find out percentage of students passed in both the subject. Find out the total no. of candidates appeared if 600 students passed in all. **(8)**

(d) A DVD player and A Music System were bought for Rs. 14000 each. The Shopkeeper made a loss of 8% on the DVD player and a profit 16% on the Music System. Find the gain or Loss percent on the whole transaction **(8)**

Q. 5 (a) From a frequency distribution table from the following data by inclusive methods talking 4 as the magnitude of the class interval.

10, 17, 15, 22, 11, 16, 19, 29, 25, 26
32, 14, 17, 20, 23, 27, 30, 12, 18, 24
36, 21, 28, 33, 38, 34, 13, 20, 21, 31 **(4)**

(b) Which group is more Uniform in Character?

	Group 'A'	Group 'B'
Mean	25.5	20.0
Standard deviation	8,68	7.48

(4)

(c) Co-efficient of skewness = 0.21, Median =52, lower quartile =35 calculate upper Quartile? **(4)**

(d) Find the principle if the interest is worth Rs. 5600 after 5 years @ 7% p.a. **(4)**