Govt. Shamsur Rahman College.

Goshairhat, Shariatpur.

Department of Accounting

MBA Preliminary to Master's

Pre test examination -2021

Subject: Business Statistics

Subjec code:412507

Time: 4 hours Full marks:80

Part –A

Answer any ten questions 1×10 =10

1 (a) What is data?

(b) What is statistics?

(c What is probability?

(d) What is range?

(e) What is histogram?

(f) What is regression

(g) What is correlation?

(h)) What is central tendency?

(i)) What is dispersion?

(j)) What is data processing?

(k)) What is sampling?

(l) What is standard deviation?

Part –B

Answer any five questions 5×4 =20

2.Discuss the different parts of frequency distribution table

3.Mention the uses of Statistics.

4.Distinguish between correlation and regression

5.The ages of 24 students was recorded as follows:

10, 16, 5, 6, 15, 18, 17, 25, 22, 23, 25, 23, 21, 20,15, 18, 23, 20, 23, 13, 17, 15, 14, 18

Present the data in stem and leaf diagram.

6. From the following data find the coefficient of correlation between age and playing habits of students

Age	15	16	17	18	19
Number of students	250	200	150	120	100
Regular players	200	150	90	48	30

7.Progoti motors has 5 Representative. The number of sold car in the last month are given.

Representative	A	B	C	D	E
Sales	5	15	10	25	20

(i) How many different samples are possible to take considering 2 at a time

(ii) Record all possible samples and find its mean taking 2 at a time

(iii) Compare between sample means and population mean

8. Calculate the co efficient of range from the following data:

Age(year)	20-30	30-40	40-50	50-60	60-70	70-80	80-90
Frequency	5	6	12	15	14	10	8

9 The mean salary paid to 100employees factory was found to be Tk280 Later on it was discoveredthat the wages of two employees were wrongly taken as 297 and 365insteadof 397 and 465.Find the correct mean

Part – C

Answer any five questions 5×10=50

10.The marks of 40 students are given below.

Sl No	Marks in business Statistics	Marks in business Mathematics	Sl No	Marks in business Statistics	Marks in business Mathematics		
1	35	25	21	35	32		
2	22	25	22	21	11		
3	42	35	23	40	20		
4	45	42	24	45	40		
5	32	31	25	45	40		
6	24	22	26	38	28		
7	20	18	27	20	25		
8	26	24	28	25	20		
9	33	34	29	20	19		
10	36	32	30	23	20		
11	37	37	31	27	25		
12	48	44	32	30	34		
13	40	35	33	34	32		
14	44	41	34	42	36		
15	47	45	35	45	35		
16	46	44	36	43	33		
17	41	37	37	44	24		
18	40	26	38	32	26		
19	35	30	39	30	23		
20	35	30	40	25	22		

Prepare a bi- variate frequency distribution with suitable size of class interval.

11.Draw a histogram from the following table and show mode in the histogram:

Hourly wages	20-30	30-40	40-50	50-60	60-70	70-80	80-90
Number of workers	10	15	20	44	25	8	5

12.Prepare a frequency distribution table including cumulative frequrncy, frequrncydensity, relative frequrncy, Class mid value.

35, 30, 32, 45, 70, 85, 40, 42, 38, 50, 40, 55, 60, 55, 50, 41,32, 85, 75, 82, 48, 42, 62, 65, 68 71, 56, 52, 54, 72

13.(a) What is statistics

(b) Indicate the difference between primary data and secondary data.

14.(a) What is sample

(b) Indicate the difference between variable and constant.

15.Given below are the advertisement expenses and sales figure of a shop in Tk

Advertisement	70	65	80	110	145	130
Sales	400	392	442	421	1570	450.

Requirement: (i) Find out the two regression equation

16.Calculate Arithmatic geometric and harmonic mean from the following data:

Marks	0-10	10-20	20-30	30-40	40-50
No of students	3	4	6	3	2

17. The following information are taken from the two factory

Factory	Average weekly wages	Standard deviation	Number of workers
A	460	50	100
B	490	40	80

(i) Which factory pays larger amount of wages
(ii) Which factory shows larger variability in the distribution of wages
(iii) What are the mean of all workers in two factories taken together