UNIVERSITY OF NORTH BENGAL

B.Com. Honours 3rd Semester Examination, 2020

GE3-COMMERCE

BUSINESS STATISTICS

Full Marks: 60

ASSIGNMENT

The figures in the margin indicate full marks.

Answer the following assignments   15×4= 60

1. (a) Your friend has supplied you some data on marks in corporate accounting and statistics in an examination obtained by his friends: 8+7

Mean marks in statistics	39.5
Mean marks in corporate accounting	47.6
Standard deviation of mean marks in statistics	10.8
Standard deviation of mean marks in corporate accounting	16.9
The co-efficient of correlation between marks in statistics and corporate accounting	0.42

How can you help your friend to predict the marks in corporate accounting if he gets 50 marks in statistics?

   (b) Zemco Ltd launched a product in the year 2016. Following are the average price of that product over the years starting from 2016 up to 2020. You have been asked by the General Manager to construct an index number applying a method where the price of the product can be compared immediately with its preceding one. Analyse the result also.

Product	2016	2017	2018	2019	2020
A	50	60	62	65	70

2. (a) Mr. X started for his town which was at a distance of 6 km. He travelled in a car at a speed of 40 km per hour. After travelling 4 km. the car stopped running. Then he took a rickshaw and travelled at a speed of 10km per hour. After travelling a distance of 1.5km, the tyre of rickshaw got punctured. He then started walking at speed of 4 km per hour. Can you find out at what average speed he travelled throughout the journey?   8+7

   (b) You have job opportunities in two companies. The probability that you will be selected in "Company A" is $\frac{2}{3}$ and the probability that you will not be selected for "Comapany B" is $\frac{1}{4}$. What is the probability that you will get job in both the companies?

3. (a) 10% of the workers of a company employing 1000 workers earn less than ₹5 per day. 200 of them earn between ₹5 and ₹9.99 per day. 30% between ₹10 and ₹14.99. 250 of them earn between ₹15 and ₹19.99 and the rest earns ₹20 and above. What is the median wage of the company?   8+7

(b) One series of observations is given as: 1, 2, ?, 6, ?. What values should be replaced in place of (?) marks so that their mean score becomes 4.4 and variance 8.24?

4. (a) The sales manager of an automobile company is interested to know the probable sale of the cars in the year 2021. From the following data can you help him to predict that figure?   8+7

Year	2015	2016	2017	2018	2019	2020
Sale of cars ('000)	15	17	20	21	23	24

(b) In an examination, the 3rd Semester boy students of a college scored a grade of 68.4 and the girls in the same class of that college scored 71.2. Being interested to know the ratio of boys and girls in that class, you got to know only that the average score of the entire class was 70.0. Can you still find out the ratio? If so, how?

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