

Roll No.:

GSCN/W-2019/SEM-I/ BBASFC 1.0



Shiksha Mandal, Wardha's

G. S. College of Commerce & Economics, Nagpur

An Autonomous Institution

(Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

First Semester Bachelor of Business Administration Examination (CBCS)

BUSINESS MATHEMATICS AND STATISTICS

(BBASFC 1.0)

Time: 3 Hours

Maximum Marks: 80

Note: a) All Questions are compulsory

b) Draw well labeled diagrams wherever necessary

Q.1 A) Prepare two way frequency table on the basis of ages of following 30 number of Boys and Girls; with class intervals of 15-20, 20-25 so on. 10

Age of Boys	Age of Boys	Age of Boys	Age of Girls	Age of Girls	Age of Girls
39	32	28	34	30	28
33	38	37	31	28	31
36	20	25	29	19	25
27	25	29	24	22	18
32	37	42	30	34	32
22	45	41	20	43	30
38	48	23	37	45	17
39	24	35	34	18	26
48	25	37	47	20	28
41	26	35	38	24	32

OR

B) Convert following series into simple continuous series with perfect frequency.

Marks	No. of Students
Less than 10	3
Less than 20	18
Less than 30	26
Less than 40	58
Less than 50	98
Less than 60	139
Less than 70	188
Less than 80	240
Less than 90	260
Less than 100	290

Q.2 A) Calculate median and mode from following data. 10

Marks	Above	80	70	60	50	40	30	20	10	0
No. of Students		0	14	30	70	80	80	100	140	150

OR

B) From the following data calculate skewness & co-efficient of skewness.

Income (₹ 000)	No. of Tax Payers
100-200	2
200-300	8
300-400	15
400-500	1
500-600	12
600-700	4
700-800	6
800-900	3
900-1000	2
Total	53

Q.3 A) From the following data, find out Index No. by:

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- Laspeyre's Method
- Paasche's Method
- Bowley's Method
- Fisher Method

Commodity	Qty		Price	
	2018	2019	2018	2019
Sugar	16	20	50	16
Maida	5	8	10	15
Oil	4	6	20	25

OR

B) The average monthly production of coal is given in tonnes.

Year	Avg monthly production during year(tonnes)	Year	Avg monthly production during year(tonnes)
1991	50.0	1996	38.1
1992	36.5	1997	32.6
1993	43.0	1998	41.7
1994	44.5	1999	41.1
1995	38.9	2000	33.8

- Calculate 4 yearly moving average.
- 4 yearly centered moving average.

Q.4 A) Find out Simple Interest on amount of ₹ 24,000 & Compound Interest on ₹ 50,000 for 24 months at 9% p.a.

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OR

B) Rahul purchased a tooth brush at the rate of 30 and sold it to Amit at 10% profit. Amit sold it to customer by taking 10% profit on its cost price. At what rate did customer purchase it?

- Q.5 Answer the following questions in about 75-100 words (Any Two): 08
A) Explain various types of classification.
B) Explain objectives of Tabulation.
C) What are the functions of statistics?
- Q.6 Answer the following questions in about 75-100 words (Any Two): 08
A) What are the objectives of Central Tendency?
B) What do you mean by Dispersion? What are the methods of measuring dispersion?
C) Define Skewness & write its types.
- Q.7 Answer the following questions in about 75-100 words (Any Two): 08
A) What do you mean by Time Series? Explain its components.
B) What are different uses of Index Number?
C) Write various types of Index Number.
- Q.8 Answer the following questions in about 75-100 words (Any Two): 08
A) Define the term Ratio & write its features.
B) Define the terms Simple Interest & Compound Interest.
C) Explain the concept of cost price, selling price, profit and loss.
- Q.9 Answer the following questions in about 3-4 sentences. 08
A) Explain the limitations of Statistics.
B) Discuss the formula of Bowley's Coefficient of Skewness.
C) Discuss the formula of Paasche's Index No.
D) Explain the formula of Simple Interest and Compound Interest.
