

(FOR THE CANDIDATES ADMITTED

25UPA2A1

DURING THE ACADEMIC YEAR 2025-2026 ONLY)

REG.NO.:

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

EVEN SEMESTE OF EXAMINATIONS : MAY 2026

B.COM (PA)

MAXIMUM MARKS: 75

SEMESTER: II

TIME : 3 HOURS

PART - III

BUSINESS MATHS & STATISTICS

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

(K1)

1. A relation is called a function if _____
 - a) every element of the codomain has a preimage
 - b) every element of the domain has more than one image
 - c) every element of the domain has exactly one image
 - d) domain and codomain are equal
2. Compound interest differs from simple interest because interest is calculated on _____
 - a) principal only
 - b) principal for one year
 - c) principal plus accumulated interest
 - d) monthly deposits
3. Median is most suitable when data _____
 - a) has equal values
 - b) contains extreme values
 - c) is symmetrical
 - d) is continuous
4. Sampling refers to _____
 - a) study of all items
 - b) complete enumeration
 - c) study of a part of population
 - d) census method
5. Index numbers are used to _____
 - a) measure profits
 - b) calculate averages
 - c) measure relative change over time
 - d) find dispersion

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES

(K2)

6. What is a set?
7. What is simple interest?
8. Define median.
9. Define sampling error.
10. Name one use of index numbers.

SECTION – B

(5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) Apply the definition of a function to determine if a given relation is a function. Give an example.

(OR)

b) Find $\lim_{x \rightarrow 5} f(x) = \frac{x^2 - 25}{x - 5}$

12. a) Find the simple interest on the sum of Rs.6000 at 10% p.a. for 3 years.

(OR)

- b) Calculate the total amount that will be received from the debtor when the principal Rs.10,000 is lent to him on interest for 4 years at 9% p.a.

13. a) Compare Arithmetic mean and Harmonic mean.

(OR)

- b) Find the Median

No. of. Cars sold in a Day	No. of Days
10	4
15	16
17	12
18	5
21	3
Total	40

14. a) Describe Errors in Sample Survey

(OR)

- b) Compare Primary data and Secondary data?

15. a) What are the uses of Index numbers?

(OR)

- b) What is a cost of living index number?

SECTION – C

(5 X 8 = 40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K4ORK5)

16. a) Compare a relation and a function with examples

(OR)

- b) Analyse the limit of

$$f(x) = \frac{x^2 - 9}{x - 3}$$

as $x \rightarrow 3$.**

17. a) A sum of money amounted to Rs.1,071 in 6 months and Rs.1,106 in 16 months. Calculate the rate of simple interest.

(OR)

- b) (i) calculate the compound interest for Rs.2,500 for 4 years at 8% per annum.(ii) calculate the compound interest in the above case when interest is compounded.

(a) half yearly and (b) quarterly.

18. a) Calculate the arithmetic mean, median and mode from the following data.

Values (more than)	Frequency
0	83
50	75
100	60
150	30
200	13
250	4

(OR)

- b) Weekly wages of a labourer are given below. Calculate quartile deviation and coefficient of Q.D.

Weekly Wage (Rs)	100	200	400	500	600	Total
No.of Weeks	5	8	21	12	6	52

19. a) What is sampling? What are the different types of sampling?

(OR)

- b) Compare Sample Survey and Complete Enumeration

20. a) Discuss the various Tests of Index numbers.

(OR)

- b) From the following data, develop&construct an index for 1995 takings base.

Commodities	A	B	C	D	E
Price in 1994 (Rs)	50	40	80	110	20
Price in 1995 (Rs)	70	60	90	120	20
