

INTERMEDIATE PART-II (12th CLASS)**BUSINESS MATHEMATICS & STATISTICS (NEW SCHEME)****PAPER-II (COMMERCE GROUP)**

TIME ALLOWED: 2.10 Hours

SUBJECTIVE

MAXIMUM MARKS: 60

NOTE: - Write same question number and its part number on answer book, as given in the question paper.

SECTION-I

2. Attempt any six parts.

6 × 2 = 12

- (i) Define Statistics in your own words.
- (ii) Define Constant.
- (iii) What is Quantitative Variable?
- (iv) Define Sample.
- (v) Define Median.
- (vi) Define Arithmetic Mean.
- (vii) Find A.M if $U = \frac{X - 10}{5}$, $\sum fu = 46$, $\sum f = 125$
- (viii) Find mode 1, 3, 3, 5, 5, 7, 7, 3, 7, 9, 5.
- (ix) Write any two desirable qualities of a good average.

3. Attempt any six parts.

6 × 2 = 12

- (i) Explain the term Composite Index.
- (ii) Write different sources of Secondary Data.
- (iii) What is the Primary Data?
- (iv) What is a Discrete Variable?
- (v) Define an Index Number.
- (vi) What is the Base Period?
- (vii) Describe the Weighted Index Number.
- (viii) What are Limitations of Index Number?
- (ix) If Laspeyre's Index = 120, Fisher's Index = 115 then find Paasche's Index Number.

4. Attempt any six parts.

6 × 2 = 12

- (i) Name the types of graph of the Histogram.
- (ii) What is Relative Frequency?
- (iii) Name the types of diagram.
- (iv) Write the desirable qualities of a good table.
- (v) Define the Sample Points.
- (vi) What is Sample Space?
- (vii) What is Random Experiment?
- (viii) Distinguish between Combination and Parameter.
- (ix) Write down the properties of Probability.

SECTION-II**NOTE: - Attempt any three questions.**

- 5.(a) Given the following data:- 4
 10, 3, 5, 3, 7, 9, 2, 8, 6, 11, 20, 6, 15, 13, 13, 9, 1, 12, 12, 8, 5, 17, 3,
 16, 12, 10, 9, 2, 01, 11, 10, 5, 13, 8, 18, 7, 21, 4, 4, 11, 16, 19, 3, 6
 Construct a frequency distribution of the above data.

- (b) Consider the following data and represent the data by Pie-chart. 4

Districts	Bhakkar	Multan	Lahore	Rawalpindi	Sargodha
Area	152	162	140	180	240

- 6.(a) Calculate Arithmetic mean from the following data taking deviations from 3000. 4

Family	A	B	C	D	E	F	G
Income	2700	2000	5000	2500	1800	2500	4800

- (b) A student obtained the following marks in different papers. If weights of 1, 1, 2 and 3 respectively are allotted to the subjects, find the weighted mean. 4

Subject	B. Stats	B. Math	P. Eco	P. ACC
Marks	40	39	55	70

- 7.(a) Find Median from the following data:- 4

Weight (Pounds)	Frequency
118 – 126	3
127 – 135	5
136 – 144	9
145 – 153	12
154 – 162	5
163 – 171	4
172 – 180	2

- (b) Find Mode for the data given in part (a) above. 4

- 8.(a) Construct the Simple Index Number from the following data:- 4
 Taking (i) 1970 as base (ii) Average of last three years as base

Years	1970	1971	1972	1973	1974	1975	1976
Prices	20	24	26	24	26	28	30

- (b) From the given information compute 4
 (i) Laspeyr's (ii) Paasche's (iii) Fisher's ideal index
 $\sum p_1q_0 = 4110$, $\sum p_0q_0 = 3990$, $\sum p_1q_1 = 5000$, $\sum p_0q_1 = 4990$

- 9.(a) Two dice are rolled, what is the probability that:- 4
 (i) The product of two numbers is 6 or 12. (ii) The sum is 7 appear.

- (b) When three coins are tossed, what is the probability of getting? 4
 (i) At least two Head appear. (ii) No tail appear.