



# BUSINESS STATISTICS HSSC-II

## SECTION – A (Marks 10)

Time allowed: 15 Minutes

Version Number 1 8 9 5

**Note:** Section – A is compulsory. All parts of this section are to be answered on the separately provided OMR Answer Sheet which should be completed in the first 15 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

**Q. 1** Choose the correct answer A / B / C / D by filling the relevant bubble for each question on the OMR Answer Sheet according to the instructions given there. Each part carries one mark.

- 1) Statistics is always:
  - A. Fixed
  - B. Aggregate of facts and figures
  - C. Always continuous
  - D. Always true
- 2) The data which have not undergone any statistical treatments are:
  - A. Discrete data
  - B. Secondary data
  - C. Primary data
  - D. Qualitative data
- 3) The number of observations falling in a particular class is known as:
  - A. Midpoint
  - B. Class mark
  - C. Class interval
  - D. Class frequency
- 4) In a pie chart, angle  $\alpha$  of sector is:
  - A.  $\frac{\text{Component part}}{\text{Total}} \times 100^\circ$
  - B.  $\frac{\text{Component part}}{\text{Total}} \times 360^\circ$
  - C.  $\frac{\text{Total}}{\text{Component part}} \times 360^\circ$
  - D.  $\frac{\text{Total}}{\text{Component part}} \times 100^\circ$
- 5) The sum of square deviations from mean is:
  - A. Zero
  - B. Minimum
  - C. Negative
  - D. Maximum
- 6) The empirical relationship among mean, median and mode is:
  - A. Mode = 3 Mean – 2 Median
  - B. Mode = 3 Median – 2 Mean
  - C. Mode = 3 Median – 3 Mean
  - D. Mode = 2 Mean – 3 Median
- 7) If all the values are not of equal importance, the index number is called:
  - A. Simple
  - B. Composite
  - C. Un-weighted
  - D. Weighted
- 8) Imports and exports of Pakistan is an example of:
  - A. Composite Index number
  - B. Whole Sale Price Index number
  - C. Volume Index number
  - D. Simple Index number
- 9) The probability of an event always lies between:
  - A. 0 and 1
  - B. –1 and 1
  - C. –1 and 0
  - D. 1 and 2
- 10) Two events A and B are called mutually exclusive if:
  - A.  $A \cup B = \phi$
  - B.  $A \cup B = A$
  - C.  $A \cap B = \phi$
  - D.  $A \cap B = S$



# BUSINESS STATISTICS HSSC-II

Time allowed: 2:15 Hours

Total Marks Sections B and C: 40

**NOTE:** Answer any eight parts from Section 'B' and any two questions from Section 'C' on the separately provided answer book. Use supplementary answer sheet i.e. Sheet-B if required. Write your answers neatly and legibly.

## SECTION – B (Marks 24)

**Q. 2** Attempt any EIGHT parts. The answer to each part should not exceed 3 to 4 lines. (8 x 3 = 24)

- (i) Differentiate between descriptive and inferential statistics.
- (ii) Define discrete variable by giving examples.
- (iii) Define Histogram.
- (iv) Define classification and tabulation.
- (v) A student obtained 40, 50, 60, 80 and 45 marks in the subjects of English, Urdu, Maths, Stats and Pakistan Studies, respectively, assuming weights 5, 2, 4, 3 and 1 respectively for above mentioned subjects. Find weighted A-M for subjects.
- (vi) A distribution consists of four components with frequencies 40, 50, 65 and 45 having their means 20, 38, 45 and 52. Find mean of combined distribution.
- (vii) Define median and also write its any two advantages.
- (viii) Laspeyre's Index No= 115  
Fisher's Index No=112.98  
Paasch's Index No=?
- (ix) Find Index No. from the following data taking average of all five years as base:  
Year: 1970 1971 1972 1973 1974  
Price: 9 6 9 11 10
- (x) If one card is drawn from 52 playing cards. Find the probability that it is a king of heart.
- (xi) In how many ways, the word "Committee" can be arranged?

## SECTION – C (Marks 16)

**Note:** Attempt any TWO questions. All questions carry equal marks. (2 x 8 = 16)

**Q. 3** Calculate the mean, median and mode form the following data: (08)

Class intervals	Frequency
6.5 – 7.5	5
7.5 – 8.5	12
8.5 – 9.5	25
9.5 – 10.5	48
10.5 – 11.5	32
11.5 – 12.5	6
12.5 – 13.5	1

**Q. 4** Construct chain indices for the following years, taking 1940 as the base: (08)

Year	Wheat	Rice	Maize
1940	2.8	10.5	2.7
1941	3.4	10.8	3.2
1942	3.6	10.6	3.5
1943	4.0	11.0	3.8
1944	4.2	11.5	4.0

**Q. 5 a.** A pair of dice is rolled. Find the probability of getting: (06)

- i. A total of 8
- ii. At most a total of 5

**b.** A coin is tossed twice. What is the probability that at least 1 head occurs? (02)