PART B

Workbook [कार्य-पुस्तिका]

[Competency-based Learning through **Objective Questions**]

SET-1

Fill in the Blanks

Choose appropriate word/term and fill in the blank:

1. _____ bar diagram is based on a single set of numerical data. (Simple/Vertical)
2. Sub-divided bar diagrams are also called _____ bar diagrams. (differential/percentage)
3. In case of bar diagrams, _____ of the bar remains the same. (length/breadth)
4. Pie diagram does not show _____ values. (absolute/relative)
5. The _____ of the bars differs according to different values of the variable. (length/width)
6. _____ bar diagram shows two or more sets of data simultaneously. (Multiple/Differential)
7. _____ bar diagram is used when the values are of high magnitude. (Percentage/Component)
8. Pie diagrams show _____ values. (percentage/absolute)
9. _____ is an example of frequency diagram. (Polygon/Pie diagram)
10. Bars showing _____ deviations are shown below the baseline. (positive/negative)

SET-2

Multiple Choice

Choose the correct option:

1. **Which of the following is not a geometric form of data presentation?**
   (*a*) Bar diagram (*b*) Pie diagram
   (*c*) Histogram (*d*) Both (*a*) and (*b*)
2. **Which of the following is an important feature of bar diagrams?**
   (*a*) Bars are only of horizontal type
   (*b*) Length of the bars may be more or less but breadth remains the same
   (*c*) Bars are not equidistant from each other
   (*d*) All of these
3. **Which of the following is/are type(s) of bar diagram?**
   (*a*) Multiple and Sub-divided bar diagrams (*b*) Polygon and Histogram
   (*c*) Pie diagram and Histogram (*d*) All of these
4. **The diagram that present total as well as part values of a set of data is known as:**
   (*a*) component bar diagram (*b*) multiple bar diagram
   (*c*) differential bar diagram (*d*) both (*a*) and (*c*)
5. **Data related to profit and loss will be best shown using _____.**
   (*a*) component bar diagram (*b*) percentage bar diagram
   (*c*) pie diagram (*d*) deviation bar diagram

6. **Data relating to birth rate in India is best presented by:**
(*a*) simple bar diagram
(*b*) component bar diagram
(*c*) multiple bar diagram
(*d*) pie diagram

7. **The values in percentage can be shown using _____ .**
(*a*) component bar diagram
(*b*) percentage bar diagram
(*c*) pie diagram
(*d*) both (*b*) and (*c*)

8. **Pie diagram is a circle divided into various segments showing the _____ .**
(*a*) total values of a series
(*b*) part values of a series
(*c*) per cent values of a series
(*d*) all of these

9. **Bar diagrams are those diagrams in which:**
(*a*) data are presented in the form of bars
(*b*) data are presented in the form of rectangles
(*c*) both (*a*) and (*b*)
(*d*) none of these

10. **Bars are also called:**
(*a*) rows
(*b*) columns
(*c*) stubs
(*d*) none of these

11. **_____ bar diagrams are used generally when the values are of high magnitude.**
(*a*) Component
(*b*) Percentage
(*c*) Multiple
(*d*) Differential

12. **Which of the following statements is not correct?**
(*a*) Bars are equidistant from each other
(*b*) Usually bars are used in their vertical form
(*c*) Length of bars remains the same
(*d*) Bar diagram is based on a common base line

13. **Percentage distribution of the values is best presented as:**
(*a*) simple bar diagram
(*b*) component bar diagram
(*c*) multiple bar diagram
(*d*) pie diagram

14. **In circular diagrams, percentage values of data are converted into component parts of _____ of a circle.**
(*a*) 90°
(*b*) 180°
(*c*) 270°
(*d*) 360°

15. **The other name of sub-divided bar diagram is _____ .**
(*a*) differential bar diagram
(*b*) component bar diagram
(*c*) multiple bar diagram
(*d*) both (*a*) and (*b*)

16. **In case of bar diagrams, the height of bars:**
(*a*) does not differ according to different values of the variable
(*b*) differs according to different values of the variable
(*c*) is always equal to breadth of bars
(*d*) none of these

17. **Which of the following is a major limitation of simple bar diagrams?**
(*a*) These diagrams show only a single set of numerical data
(*b*) These diagrams show two set of numerical data
(*d*) These diagrams show multiple set of numerical data
(*d*) None of these

18. **Pie diagram does not show _____ values.**
(*a*) relative
(*b*) absolute
(*c*) total
(*d*) none of these

19. **In case of bar diagrams, _____ remains the same.**
(*a*) length of the bar
(*b*) height of the bar
(*c*) breadth of the bar
(*d*) none of these

20. **Diagrams which simultaneously show different parts of the values of a set of data in terms of percentages are called:**
(*a*) simple bar diagrams
(*b*) multiple bar diagrams
(*c*) sub-divided bar diagrams
(*d*) percentage bar diagrams

SET-3

True or False

State whether the following statements are True or False:

1. Differential bar diagrams present only part values of a set of data. (True/False)
2. Percentage values are converted into component parts of 360° of a circle before being presented in the form of a pie diagram. (True/False)
3. Percentage bar diagram is used when the values are of high magnitude. (True/False)
4. Height of the rectangles of the bar diagram is proportional to the size of the class interval. (True/False)
5. Negative profit is indicated by bars above the base line. (True/False)
6. Sub-divided bar diagrams are also known as component bar diagrams. (True/False)
7. Pie diagram is a circle showing absolute values of the series. (True/False)
8. Multiple bar diagrams are generally used to make comparison between two sets of series such as birth-rate and death-rate series. (True/False)
9. Width of bars in a bar diagram need not be equal. (True/False) [*NCERT*]
10. Simple bar diagrams only show one set of data. (True/False)

SET-4

True-False Alternatives

In the following questions (1-5), two statements are given. Read the statements carefully and choose the correct alternative among those given below:

Alternatives:

(*a*) Both the statements are true
(*b*) Both the statements are false
(*c*) Statement 1 is true and Statement 2 is false
(*d*) Statement 2 is true and Statement 1 is false

1. Statement 1 : Bars are also called columns.
   Statement 2 : Bars in bar diagrams are equidistant from each other.
2. Statement 1 : Simple bar diagrams are those diagrams which are based on a single set of numerical data.
   Statement 2 : Bar diagrams do not facilitate the comparison of net deviation of related variables with respect to time and location.

3. Statement 1 : In multiple bar diagram, separate bars are drawn to present separate sets of value
Statement 2 : Pie diagrams are drawn only when percentage distribution of the value is to be diagrammatically presented.

4. Statement 1 : Simple bar diagrams are also called differential bar diagrams.
Statement 2 : Multiple bar diagrams simultaneously present, total values as well as part values of a set of data.

5. Statement 1 : Percentage bar diagrams are used to show two or more sets of data simultaneously
Statement 2 : These are generally used when the values are of high magnitude.

SET-5

Choose the Correct Pair of Statements/Identify the Correct Sequence of Alternatives

1. **From the set of statements given in Column I and Column II, choose the correct pair of statements:**

Column I	Column II
A. Pie diagram	(*i*) Shows absolute values
B. Geometric form of data presentation	(*ii*) Bar diagrams and pie diagrams
C. Multiple bar diagrams	(*iii*) Shows three or more sets of data simultaneously
D. Component bar diagrams	(*iv*) Present only part values of a set of data

Alternatives:

(*a*) A—(*i*) (*b*) B—(*ii*)

(*c*) C—(*iii*) (*d*) D—(*iv*)

2. **Identify the correct sequence of alternatives given in Column II by matching them with respective items in Column I:**

Column I	Column II
A. Bar diagrams	(*i*) One-dimensional diagrams
B. Deviation bar diagram	(*ii*) Two-dimensional diagrams
C. Simple bar diagram	(*iii*) Area above X-axis shows positive values while area below X-axis shows negative values
D. Pie diagram	(*iv*) Is composed of bars with equal width

Alternatives:

(*a*) A—(*iv*), B—(*i*), C—(*ii*), D—(*iii*) (*b*) A—(*ii*), B—(*iv*), C—(*iii*), D—(*i*)

(*c*) A—(*i*), B—(*iii*), C—(*iv*), D—(*ii*) (*d*) A—(*iii*), B—(*i*), C—(*iv*), D—(*ii*)

SET-6

Assertion and Reasoning

In the following questions (1-5), a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct alternative among those given below:

Alternatives:

(*a*) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)

(*b*) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A)

(*c*) Assertion (A) is true but Reason (R) is false

(*d*) Assertion (A) is false but Reason (R) is true

1. Assertion (A) : In bar diagrams, data are presented in the form of bars or rectangles.
   Reason (R) : Bar diagram is a one-dimensional diagram.
2. Assertion (A) : Deviation bar diagrams are used to compare the net deviation of related variables with respect to time and location.
   Reason (R) : In deviation bar diagrams, bars represent the deviations in magnitude as well as in direction.
3. Assertion (A) : Simple bar diagrams only show one set of data.
   Reason (R) : Differential bar diagrams are used generally when the values are of high magnitude.
4. Assertion (A) : Multiple bar diagrams show two or more sets of data simultaneously.
   Reason (R) : Negative profit is indicated by bars below the base line.
5. Assertion (A) : Height of rectangles of bar diagram is proportional to the size of class interval.
   Reason (R) : Percentage bar diagrams simultaneously show different parts of the values of a set of data in terms of percentage.

ANSWERS

SET-1

1. Simple **2.** differential **3.** breadth **4.** absolute **5.** length
6. Multiple **7.** Percentage **8.** percentage **9.** Polygon **10.** negative

SET-2

1. (*c*) **2.** (*b*) **3.** (*a*) **4.** (*d*) **5.** (*d*) **6.** (*a*) **7.** (*d*) **8.** (*c*) **9.** (*c*) **10.** (*b*)
11. (*b*) **12.** (*c*) **13.** (*d*) **14.** (*d*) **15.** (*d*) **16.** (*b*) **17.** (*a*) **18.** (*b*) **19.** (*c*) **20.** (*d*)

SET-3

1. False **2.** True **3.** True **4.** False **5.** False **6.** True **7.** False **8.** True **9.** False **10.** True

SET-4

1. (*a*) **2.** (*c*) **3.** (*a*) **4.** (*b*) **5.** (*d*)

SET-5

1. (*b*) **2.** (*c*)

SET-6

1. (*b*) **2.** (*b*) **3.** (*c*) **4.** (*b*) **5.** (*d*)