



Delhi Public School, Howrah

PERIODIC ASSESSMENT I(2025-2026)

CLASS – X

Care must be taken not to write anything on the question paper. All the questions must be attempted in the correct sequence.

SUBJECT: DATA SCIENCE (SUBJECT CODE 419)

THEORY EXAMINATION

Time Allowed:-1 Hour

F.M.-25

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **15 questions** in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. Out of the given (3 + 12 = 15) questions, a candidate has to answer (3 + 6 = 9) questions in the allotted (maximum) time of 1 hour.
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (11 MARKS):**
 - i. This section has 03 questions.
 - ii. Marks allotted are mentioned against each question/part.
 - iii. There is no negative marking.
 - iv. Do as per the instructions given.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (14 MARKS):**
 - i. This section has 12 questions.
 - ii. A candidate has to do 6 questions.
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

Q. 1	Answer any 3 out of the given 4 questions on Employability Skills (1 x 3 = 3 marks)	
i.	What is the key difference between a habit and a routine? (A) Habits are planned while routines are automatic. (B) Habits are automatic while routines are planned. (C) Habits are daily while routines are weekly. (D) None of these	(1)
ii.	In SMART goal framework, 'A' originally stood for (A) Attainable (B) Achievable (C) Assignable (D) Actionable	(1)
iii.	Demonstrate effective stress management by selecting the most appropriate strategy from the following options: (A) Arguing with peers (D) Meditation and yoga (C) Ignoring it (D) Complaining	(1)
iv.	Good communication requires: (A) Monologue (B) Arguments (C) Clear expression (D) Passive listening	(1)

Q. 2	Answer any 4 out of the given 6 questions (1 x 4 = 4 marks)	
i.	Which of the following is a measure of central tendency? (A) Subset (B) Pie chart (C) Median (D) Frequency	(1)
ii.	Data subsetting helps in: (A) Increasing errors (B) Filtering relevant data (C) Merging data (D) Encrypting data	(1)

iii.	Which method is used to filter rows in a dataset? (A) Column subsetting (B) Data-based subsetting (C) Pie charting (D) Averaging	(1)
iv.	What is MAD used for? (A) Find average (B) Find central value (C) Show variation (D) Remove errors	(1)
v.	What is the effect of outliers? (A) Skew median only (D) Skew mean only (C) No effect (D) Skew both mean and median	(1)
vi.	Which method helps choose specific columns? (A) Row-based (B) Data-based (C) Column-based (D) All of these	(1)

Q. 3	Answer any 4 out of the given 6 questions (1 x 4 = 4 marks)	
i.	Two-way frequency tables are used to: (A) Filter data (B) Compare two variables (C) Add values (D) Calculate mean	(1)
ii.	The formula for mean is: (A) $\text{Sum} \div \text{Total numbers}$ (B) $\text{Mode} \times \text{Median}$ (C) $\text{Highest} + \text{Lowest} \div 2$ (D) None of these	(1)
iii.	Which chart is best for comparing parts of a whole? (A) Bar chart (B) Pie chart (C) Line chart (D) Scatter plot	(1)
iv.	What does the median show? (A) The total (B) The average (C) The middle value (D) The most frequent	(1)
v.	Which type of subsetting is used to extract students scoring above 80%? (A) Row-based (B) Column-based (C) Data-based (D) None	(1)
vi.	If a dataset contains one very large value compared to the others, which will be affected more? (a) Median (b) Mode (c) Mean (D) All equal	(1)

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 2 out of the given 4 questions on Employability Skills (2 x 2 = 4 marks)

Answer each question in 20 – 30 words.

Q. 4	Define communication. What are the two key elements in the communication cycle?	(2)
Q. 5	Explain two benefits of effective stress management for students.	(2)
Q. 6	Define self-awareness and time management with one real-life application of each.	(2)
Q. 7	Describe the role of feedback in building strong communication.	(2)

Answer any 3 out of the given 5 questions in 20 – 30 words each (2 x 3 = 6 marks)

Q.8	Your school collects feedback on the quality of its library services. Which statistical measure will help summarize the ratings and why?	(2)
Q.9	You want to analyze the health data of students who scored below 50%. Which subsetting method will you apply and how?	(2)
Q.10	A social media platform receives user engagement data. How can MAD help understand variation in likes across posts?	(2)
Q.11	Create a two-way frequency table from a survey showing students' preferences (Games vs Art) by gender. Interpret two insights.	(2)
Q.12	An outlier is found in student height data. Explain how it affects the mean and median using this situation.	(2)

Answer any 1 out of the given 3 questions in 50 – 80 words (4 x 1 = 4 marks)

Q.13	You collected data on screen time of 10 classmates. Describe how you will calculate and interpret mean, median, and MAD.	(4)
Q.14	Design a simple survey to analyse communication preferences in your class. How will you visualize and interpret this data?	(4)
Q.15	Explain how Central Tendency Measures help in making data-driven decisions. Use a real-world example.	(4)