

CLASS: XII
ARTIFICIAL INTELLIGENCE (SUBJECT CODE - 843)
SESSION 2026-27

Unit 8: Data Storytelling – 50 MCQs

Case Study 1

A school principal collected attendance data for five years. After creating charts and adding explanations, the principal presented a story showing how attendance improved after introducing smart classrooms.

1. The process of presenting data with context and meaning is called:

- A. Data Mining
- B. Data Storytelling
- C. Data Storage
- D. Data Cleaning

Ans: B

2. Which three elements together form Data Storytelling?

- A. Data, Hardware, Software
- B. Data, Narrative, Visuals
- C. Graphs, Coding, AI
- D. Database, Query, Report

Ans: B

3. The charts used by the principal represent:

- A. Narrative
- B. Visuals
- C. Data Collection
- D. Resolution

Ans: B

4. The explanation accompanying the charts is called:

- A. Narrative
- B. Visualization
- C. Dataset
- D. Histogram

Ans: A

5. The main purpose of Data Storytelling is:

- A. Increase storage
- B. Communicate insights effectively
- C. Delete data
- D. Reduce data size

Ans: B

6. Stories are valuable because they:

- A. Create connection and understanding
- B. Only entertain
- C. Replace data
- D. Increase storage space

Ans: A

7. Which is NOT an element of a story?

- A. Conflict
- B. Resolution
- C. Characters
- D. Spreadsheet

Ans: D

8. The problem faced by characters is called:

- A. Plot
- B. Resolution
- C. Conflict
- D. Insight

Ans: C

9. The sequence of events in a story is:

- A. Plot
- B. Character
- C. Theme
- D. Insight

Ans: A

10. The final solution to a conflict is:

- A. Climax
- B. Resolution
- C. Setting
- D. Plot

Ans: B

Assertion–Reason Questions (11–20)

11.

Assertion (A): Storytelling is a powerful communication tool.

Reason (R): It makes complex ideas easier to understand.

- A. Both A and R are true and R is the correct explanation of A.
- B. Both A and R are true but R is not the correct explanation.
- C. A is true but R is false.
- D. A is false but R is true.

Ans: A

12.

Assertion (A): Data storytelling combines data, visuals and narrative.

Reason (R): Data alone is always sufficient for decision-making.

- A. Both true
- B. Both false
- C. A true, R false
- D. A false, R true

Ans: C

13.

Assertion (A): Visuals help audiences understand patterns quickly.

Reason (R): Charts and graphs provide graphical representation of data.

- A. Both true and R explains A
- B. Both true but R doesn't explain A
- C. A true, R false
- D. A false, R true

Ans: A

14.

Assertion (A): Data storytelling improves decision-making.

Reason (R): It presents evidence-based insights clearly.

- A. Both true and R explains A
- B. Both true but R doesn't explain A
- C. A true, R false
- D. A false, R true

Ans: A

15.

Assertion (A): Narrative is unnecessary in data storytelling.

Reason (R): Narrative provides context to insights.

- A. Both true
- B. Both false
- C. A false, R true
- D. A true, R false

Ans: C

16.

Assertion (A): Data is the foundation of every data story.

Reason (R): Data provides facts on which insights are built.

- A. Both true and R explains A
- B. Both true but R doesn't explain A
- C. A true, R false
- D. A false, R true

Ans: A

17.

Assertion (A): Pie charts are useful for showing proportions.

Reason (R): Pie charts are circular charts showing parts of a whole.

- A. Both true and R explains A
- B. Both true but R doesn't explain A
- C. A true, R false
- D. A false, R true

Ans: A

18.

Assertion (A): Line graphs are useful for showing trends over time.

Reason (R): Line graphs compare categories using bars.

- A. Both true
- B. Both false
- C. A true, R false
- D. A false, R true

Ans: C

19.

Assertion (A): Word clouds represent text data visually.

Reason (R): Larger words indicate greater frequency.

- A. Both true and R explains A
- B. Both true but R doesn't explain A
- C. A true, R false
- D. A false, R true

Ans: A

20.

Assertion (A): Data storytelling is important in modern businesses.

Reason (R): It bridges the gap between technology and people.

- A. Both true and R explains A
- B. Both true but R doesn't explain A
- C. A true, R false
- D. A false, R true

Ans: A

21. According to Freytag's Pyramid, the beginning of a story is:

- A. Climax
- B. Introduction
- C. Conclusion

D. Falling Action

Ans: B

22. The most intense point of a story is:

A. Rising Action

B. Climax

C. Conclusion

D. Introduction

Ans: B

23. Events leading to the climax are:

A. Falling Action

B. Rising Action

C. Conclusion

D. Resolution

Ans: B

24. After the climax comes:

A. Introduction

B. Rising Action

C. Falling Action

D. Conflict

Ans: C

25. Freytag's Pyramid contains:

A. 3 stages

B. 4 stages

C. 5 stages

D. 6 stages

Ans: C

26. Which visualization is best for text data?

A. Histogram

B. Word Cloud

C. Scatter Plot

D. Heat Map

Ans: B

27. Which chart is best for trends over time?

A. Pie Chart

B. Histogram

C. Line Graph

D. Heat Map

Ans: C

28. Which chart compares categories using bars?

A. Pie Chart

B. Bar Chart

C. Scatter Plot

D. Map Chart

Ans: B

29. Which visualization shows proportions?

A. Pie Chart

B. Histogram

C. Scatter Plot

D. Line Graph

Ans: A

30. Which chart shows relationships between two variables?

- A. Bar Chart
- B. Scatter Plot
- C. Pie Chart
- D. Word Cloud

Ans: B

31. Histogram is mainly used for:

- A. Continuous data distribution
- B. Maps
- C. Text data
- D. Geographic data

Ans: A

32. Heat Maps use:

- A. Shapes
- B. Colors
- C. Audio
- D. Text

Ans: B

33. Which visualization is used for geographic data?

- A. Histogram
- B. Map Chart
- C. Word Cloud
- D. Scatter Plot

Ans: B

34. Candlestick Charts are commonly used in:

- A. Story writing
- B. Stock markets
- C. Attendance records
- D. Education surveys

Ans: B

35. FacetGrid is useful for:

- A. Mixed Data Visualization
- B. Audio Analysis
- C. Video Editing
- D. Text Generation

Ans: A

Case Study 2

A company analysed sales data, created charts, observed relationships, and then prepared a report explaining why sales increased during festivals.

36. First step in creating a data story:

- A. Create narrative
- B. Collect and organize data
- C. Draw conclusions
- D. Present report

Ans: B

37. After collecting data, the next step is:

- A. Visualization
- B. Conclusion
- C. Resolution
- D. Climax

Ans: A

38. Observing relationships in data helps:

- A. Identify insights
- B. Delete data
- C. Compress files
- D. Store records

Ans: A

39. The final step is:

- A. Data Collection
- B. Visualization
- C. Creating Narrative
- D. Cleaning Data

Ans: C

40. Festival sales increase is an example of:

- A. Insight from data
- B. Hardware issue
- C. Conflict
- D. Data redundancy

Ans: A

41. Data storytelling helps make information:

- A. More complex
- B. More memorable
- C. Less useful
- D. Less visual

Ans: B

42. Which element provides context?

- A. Narrative
- B. Data only
- C. Visuals only
- D. Tables only

Ans: A

43. Which element allows audience to identify patterns?

- A. Narrative
- B. Visuals
- C. Conflict
- D. Plot

Ans: B

44. A compelling data story can:

- A. Drive change
- B. Influence decisions
- C. Improve understanding
- D. All of these

Ans: D

45. Data storytelling is widely used by:

- A. Analysts
- B. Data Scientists
- C. Businesses
- D. All of these

Ans: D

46. Which statement about data storytelling is correct?

- A. Only visuals matter
- B. Only narrative matters
- C. Data, visuals and narrative are all important

D. Only data matters

Ans: C

47. Ethics in data storytelling requires:

A. Misleading audiences

B. Hiding information

C. Presenting data responsibly

D. Ignoring context

Ans: C

48. Data literacy means:

A. Ability to read, understand and work with data

B. Learning programming only

C. Learning hardware only

D. Data entry skills only

Ans: A

49. Which famous framework is used in data storytelling narratives?

A. SWOT Analysis

B. Freytag's Pyramid

C. Waterfall Model

D. Agile Model

Ans: B

50. The ultimate goal of data storytelling is:

A. Effective communication of insights for decision-making

B. Data storage

C. Data duplication

D. Data encryption

Ans: A

Answer Key

1-B, 2-B, 3-B, 4-A, 5-B, 6-A, 7-D, 8-C, 9-A, 10-B

11-A, 12-C, 13-A, 14-A, 15-C, 16-A, 17-A, 18-C, 19-A, 20-A

21-B, 22-B, 23-B, 24-C, 25-C, 26-B, 27-C, 28-B, 29-A, 30-B

31-A, 32-B, 33-B, 34-B, 35-A, 36-B, 37-A, 38-A, 39-C, 40-A

41-B, 42-A, 43-B, 44-D, 45-D, 46-C, 47-C, 48-A, 49-B, 50-A.