

Question Bank

CHAPTER 3

CHARTS AND GRAPHS IN EXCEL 2019

Q1. Multiple Choice Questions

1. Which component represents the entire space where the chart and all its elements are displayed?

- A) Plot Area**
- B) Chart Area**
- C) Legend**
- D) Category Axis**

Answer: B) Chart Area

2. Which chart type uses vertical bars to show changes over time or compare different items?

- A) Column Chart**
- B) Bar Chart**
- C) Pie Chart**
- D) Radar Chart**

Answer: A) Column Chart

3. What function key can you press to quickly add a chart after selecting a range of cells?

- A) F2**
- B) F5**
- C) F11**
- D) F12**

Answer: C) F11

4. Which tab appears automatically under Chart Tools at the top of the window once a chart is created?

- A) Home and Insert**
- B) Design and Format**
- C) Formulas and Data**
- D) View and Review**

Answer: B) Design and Format

5. Which component of a chart displays the exact values of individual data points directly on the visualization?

- A) Axis Titles**
- B) Gridlines**
- C) Data Labels**
- D) Legends**

Answer: C) Data Labels

6. A horizontal version of a column chart is known as a:

- A) Line Chart**
- B) Bar Chart**
- C) Pie Chart**
- D) Area Chart**

Answer: B) Bar Chart

7. Which chart type is best suited for a single series of data to show proportions or parts of a whole?

- A) Bubble Chart**
- B) Stock Chart**
- C) XY Scatter Chart**
- D) Pie Chart**

Answer: D) Pie Chart

8. When formatting a Data Series, which of the following icons is NOT found under Series Options in the task pane?

- A) Fill & Line**
- B) Size & Properties**
- C) Effects**
- D) Series**

Answer: B) Size & Properties

9. Who is the Scottish engineer credited with creating the line, bar, and pie charts?

- A) William Playfair**
- B) Charles Babbage**

C) Alan Turing

D) John Napier

Answer: A) William Playfair

10. Which chart type displays data points connected by lines on a circular grid, and is also known as a web chart?

A) XY Chart

B) Radar Chart

C) Area Chart

D) Stock Chart

Answer: B) Radar Chart

Q2. True or False

1. The Plot Area is the part inside the Chart Area where the actual data is shown. Answer: True

2. Bar charts use vertical bars to compare items side-by-side.

Answer: False

3. The Category Axis represents the vertical axis (Y-axis) that shows values and numbers.

Answer: False

4. To change a chart's type, you must delete the existing chart and create a brand-new one from scratch.

Answer: False

5. Legends use different colours or patterns to show what each data series means. Answer: True

6. An Area chart looks like a line chart, but with the area below the line filled with colour.

Answer: True

7. A bubble chart is restricted to comparing only two variables at a time.

Answer: False

8. The 'Format Axis' task pane has two main tabs: Axis Options and Text Options. Answer: True

9. Data Points are the individual pieces of information plotted on a chart.

Answer: True

10. A Stock chart can only be used for financial stock market prices and cannot show other variations like temperature changes.

Answer: False

Q3. Fill in the Blanks

1. A chart is a pictorial representation of numbers and data that helps us understand information easily.

2. The vertical axis of an Excel chart is formally called the Value Axis.

3. To build a chart, your first step is to open the Insert tab on the Excel ribbon.

4. The Chart Title is the main heading given to a chart to describe what the data is about.

5. Radar charts are also commonly known as web charts.

6. To modify a chart's style, you can hover over options inside the Chart Styles group under the Chart Design tab for a quick preview.

7. If you want to change chart boundaries or units, you can locate these properties under Axis Options inside the Format Axis task pane.

8. A Data Series is a collection or set of related data points plotted together in a chart.

9. The Size & Properties option inside the Format Axis panel is used to adjust layout parameters like alignment and margins.

10. Excel charts show visual patterns and trends, making it simple to evaluate complex data relationships.

Q4. Answer in One Word

1. Which axis represents categories or groups horizontally?

Answer: Category Axis (or X-axis) 2. What feature shows the exact value of a specific data point directly on top of it?

Answer: Data Label

2. What is the alternative common name for a Bar Chart?

Answer: Bar Graph

3. Which chart type places dots on a grid to look for mathematical dependencies or relationships?

Answer: XY Scatter (or Scatter Plot) 5. Which tool combines both columns and lines together to view distinct datasets simultaneously?

Answer: Column and Line Chart

4. Which tab under Chart Tools is used to modify the border patterns or background colouring of elements?

Answer: Format

5. What is the fundamental shape used to reflect proportions in a Pie Chart?

Answer: Slices

6. What dialog window opens when you want to change the sheet range referenced by your graph?

Answer: Select Data Source

7. Which specific icon option group allows you to add shadow or 3D effects to an axis?

Answer: Effects

8. What action needs to be performed on the Plot Area to launch its formatting task pane?

Answer: Right-click

Q5. Application Based Questions

- 1. Rahul has generated a column chart highlighting student test results but notices that readers cannot figure out what the X and Y axes represent. What feature should he use to fix this issue?**

Answer: Rahul should add "Axis Titles" to both axes by navigating to the Chart Design tab, clicking "Add Chart Element," and selecting "Axis Title." This will clarify what the data categories and numerical ranges indicate.

- 2. Priya created a line chart mapping her company's quarterly growth, but she now wants to turn it into a column chart without typing the data again. How can she do this quickly?**

Answer: Priya can select her active chart, head to the Chart Design tab on the top ribbon, and click "Change Chart Type." From the dialog box, she can select "Column Chart" and click OK to alter the layout immediately.

- 3. Aman is designing a presentation chart tracking monthly item sales. He wants to show exact figures right over each individual column bar so his team doesn't have to guess based on the side axis scale. What element should he toggle?**

Answer: Aman should enable "Data Labels" for his chart via the "Add Chart Element" option under the Chart Design tab. This action will overlay the exact values directly onto the plotted bars.

- 4. Sameer has created a high-quality column chart on Sheet 1, but his manager wants the chart isolated cleanly on its own worksheet. How can Sameer move it?**

Answer: Sameer can click and select the chart, drag it toward the sheet boundaries, or utilize the native Excel moving functions to transfer the visual elements over onto a new sheet.

- 5. Neha wants to colour-coordinate her chart's plot background area to match her school's theme, but the standard sheet grid lines are blocking her view. What path should she take to modify the background fill?**

Answer: Neha should right-click inside the chart's Plot Area and click on the "Format Plot Area" option. She can then open the "Fill & Line" task pane on the right side to adjust custom colour presets and transparency.

Chapter 4: Emerging Trends

SECTION A: MULTIPLE CHOICE QUESTIONS (MCQs)

1. Which technology overlays digital information onto real-world objects?

- A) Virtual Reality (VR)
- B) Augmented Reality (AR)
- C) Quantum Computing
- D) Blockchain

2. Pokémon GO and Snapchat fun filters are popular examples of which technology?

- A) Augmented Reality (AR)
- B) Virtual Reality (VR)
- C) Blockchain
- D) 5G Technology

3. Which headset is explicitly mentioned in the chapter for experiencing Virtual Reality?

- A) Google Glass
- B) Oculus Rift
- C) Apple Vision Pro
- D) HTC Vive

4. ChatGPT, DALL-E, and Midjourney are examples of which type of technology?

- A) Quantum Computing
- B) Generative AI
- C) Blockchain
- D) Internet of Things

5. What fuels Artificial Intelligence (AI) for learning and adaptation?

- A) Hardware components
- B) Data
- C) Cryptocurrencies
- D) 5G signals

6. A shared, distributed database ledger used to keep a secure and decentralized record of transactions is known as:

- A) Big Data
- B) Internet of Things
- C) Blockchain
- D) Quantum Computing

7. What is the maximum data speed provided by 5G networks compared to 4G's 1 Gbps?

- A) 2 Gbps
- B) 5 Gbps
- C) 10 Gbps
- D) 100 Gbps

8. Which wearable device is given as a common example of an Internet of Things (IoT) object?

- A) VR Headset
- B) Smartwatch
- C) Digital Camera
- D) Quantum Processor

9. On which date was the National Quantum Mission launched by the Union Cabinet of India?

- A) January 26, 2023
- B) April 14, 2023
- C) August 15, 2023
- D) October 2, 2023

10. What is the total outlay cost for the National Quantum Mission for the period 2023–2031?

- A) Rs. 1000 crores
- B) Rs. 3000 crores
- C) Rs. 6000 crores
- D) Rs. 10000 crores

SECTION B: FILL IN THE BLANKS

1. _____ creates an entirely immersive environment that is separate from the physical world.
2. Data fuels Artificial Intelligence (AI) for learning and _____.
3. Platforms like DALL-E and Midjourney create _____ data using prompts from users.
4. Once data is added to a blockchain, it cannot be changed, making transactions _____.
5. The major current application of blockchain technology is associated with _____.
6. IoT devices are embedded with _____ and software, allowing them to collect and exchange data.
7. 5G is the fifth generation of mobile network technology, succeeding _____ networks.
8. 5G networks can provide data speeds up to _____ Gbps.
9. Quantum computing brings about a significant revolution in _____ technology.
10. The National Quantum Mission was launched under the Ministry of _____.

SECTION C: TRUE OR FALSE

1. Augmented Reality (AR) completely isolates the user from the physical world. (True / False)
2. Older fields like agriculture are using AI to boost crop productivity. (True / False)
3. ChatGPT is an image-based generative AI model. (True / False)
4. Blockchain technology is managed by a single central authority. (True / False)
5. IoT helps simplify and automate tasks without human intervention. (True / False)
6. IoT is a critical component in the evolution of Big Data. (True / False)
7. 4G LTE networks provide data speeds up to 10 Gbps. (True / False)
8. Quantum computers perform calculations at speeds far beyond classical computers. (True / False)
9. The National Quantum Mission will run from 2023 to 2031. (True / False)
10. Blockchain is useful in supply chain management to track product journeys. (True / False)

ANSWER KEY

Section A: Multiple Choice Questions

1. B) Augmented Reality (AR)
2. A) Augmented Reality (AR)
3. B) Oculus Rift
4. B) Generative AI
5. B) Data
6. C) Blockchain
7. C) 10 Gbps
8. B) Smartwatch
9. B) April 14, 2023
10. C) Rs. 6000 crores

Section B: Fill in the Blanks

1. Virtual Reality (VR)
2. adaptation
3. image-based
4. permanent
5. cryptocurrencies
6. sensors
7. 4G (LTE)
8. 10
9. hardware
10. Science and Technology

Section C: True or False

1. False (AR overlays digital info on real world; VR creates completely separate immersive environment)

2. True
3. False (ChatGPT is a text-based generative AI model)
4. False (Blockchain is decentralized and managed by collective users)
5. True
6. True
7. False (4G maximum speed is about 1 Gbps; 5G provides up to 10 Gbps)
8. True
9. True
10. True