

**National University of Computer and Emerging Sciences**  
**Karachi - Campus**

Data for Table:

| Technology    | Usage Percentage | Year of Introduction |
|---------------|------------------|----------------------|
| Broadband     | 75%              | 2000                 |
| Fiber Optics  | 50%              | 2005                 |
| 5G Technology | 20%              | 2019                 |

5. Equation: Write the following equation:

$$\sigma = \sqrt{\frac{\sum (x_i - \mu)^2}{N}}$$

- (b) You are required to create a PowerPoint presentation on "An Introduction to 5G Technology" for your Introduction to Information and Communication Technologies course. Your presentation should include the following:
1. **Title Slide:** Include a title for your presentation and your name.
  2. **Content Slides:** Create at least **three slides** that cover:
    - An introduction to your chosen technology
    - Benefits of this technology
    - Potential challenges or drawbacks of the technology
  3. **Design:** Create from scratch and ensure that your text is easy to read and visually appealing.
  4. **Images:** Insert at least **one relevant image** on each content slide to support your topic.
  5. **Transitions:** Apply a transition effect to all slides for a smooth flow between them.
  6. **Animations:** Use animations to highlight key points on each content slide, ensuring they appear one at a time to maintain audience engagement.

Q2:

[wgt: 9]

(Excel)

You are working in the HR department of a company. You need to categorize employees' performance based on their sales numbers using the following criteria:

- If sales are greater than 500, mark as "Outstanding."
  - If sales are between 300 and 500 (inclusive), mark as "Satisfactory."
  - If sales are less than 300, mark as "Needs Improvement."
1. Add another column named "Performance" next to the "Sales" column and do the following:
    - Apply the related logical function and then create the most appropriate Bar Chart with "Employee Name" on the y-axis and their "Sales" on the x-axis.

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| Employee Name       | Sales |
|---------------------|-------|
| Mr. Muhammad Aashir | 450   |
| Mr. Khalid Khan     | 600   |
| Mr. Sameer Faisal   | 250   |
| Mr. Ubaid Ullah     | 320   |
| Mr. Waseem Raut     | 500   |

**(Access)**

You are working as a data analyst for a bookstore. You need to create a table in MS Access to store information about books. The table should include the following fields:

- **BookID** (AutoNumber; Primary Key)
- **Title** (Short Text)
- **Author** (Short Text)
- **Price** (Currency)
- **PublicationYear** (Number)

**Task:**

1. Create the table in MS Access with the fields specified above.
2. Insert the following data into the table:
3. Change the font to "Consolas".

| BookID | Title                  | Author              | Price | PublicationYear |
|--------|------------------------|---------------------|-------|-----------------|
| 1      | The Great Gatsby       | F. Scott Fitzgerald | \$10  | 1925            |
| 2      | To Kill a Mockingbird  | Harper Lee          | \$15  | 1960            |
| 3      | 1984                   | George Orwell       | \$12  | 1949            |
| 4      | Pride and Prejudice    | Jane Austen         | \$8   | 1813            |
| 5      | The Catcher in the Rye | J.D. Salinger       | \$14  | 1951            |

**(SQL)**

You are working as a database administrator for a company. The HR manager has asked you to retrieve a list of all employees who hold the job title 'Sales Representative'.

**Task:**

1. Write an SQL query to retrieve the following details of employees who are Sales Representatives:
  - **employee\_id**
  - **first\_name**
  - **last\_name**
  - **hire\_date**