

Chapter 02 – Computer Science (Class 10)

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Long Question and Answers

Question No 1. Ejaz, Javeria, Liaqat, and Zainab are standing in a line.

Clues are:

- a) Javeria is standing directly behind Ejaz.
- b) Zainab is not next to Liaqat.
- c) Liaqat is not at the end of the line.
- d) Zainab is standing in the first position.

In which order are they standing?

Answer: Zainab - Ejaz - Javeria – Liaqat

✧ **Explanation in Urdu:**

- Clue 1: Zainab pehle position par hai.
- Clue 2: Ejaz ke foran peeche Javeria hai.
- Clue 3: Liaqat last (4th) position par nahi ho sakta.
- Clue 4: Zainab aur Liaqat aapas mein saath nahi honay chahiye.

Sirf **Zainab - Ejaz - Javeria - Liaqat** yehi order hai jo sab clues ko satisfy karta hai.

Question 2 (Briefly): "Provide students with a detailed map of their school. Ask them to create an abstract version, highlighting only the main buildings and pathways."

Answer: Students should be given a printed or drawn map of the school with all buildings, classrooms, and pathways. They should identify and highlight the **main areas only**, such as classrooms, library, principal's office, playground, and corridors. Then, using symbols or boxes, they can redraw a simpler **abstract map** focusing only on the important places and connections.

✧ **Urdu Explanation:**

Abstract map ka matlab hota hai ek **simple version**, jisme sirf zaroori cheezein show hoti hain — jaise school ka overview without details.

Question No 3: Give students a problem that can be solved with a simple program. Encourage them to write functions to handle different parts of the problem, abstracting complex operations into manageable pieces.

✓ **Answer: Problem Example: "Calculate the average marks of a student in 5 subjects."**

You can give students this simple problem and ask them to solve it using **functions**.

◆ Step-by-step Plan:

1. **Input marks** for 5 subjects
2. **Function 1:** Take input of marks
3. **Function 2:** Calculate total
4. **Function 3:** Calculate average
5. **Display** the result

✓ Benefits of using functions:

- Har part ko alag function bana kar problem ko **manageable** bana sakte hain
- Code **reusable aur easy to read** hota hai
- Students ko **function writing** ki practice milti hai

✦ Urdu Explanation:

Students ko kehna chahiye ke woh ek chhota program banayein jaise ke "marks ka average calculate karna", jisme woh har kaam ke liye **separate function** likhein. Jaise input lena, total calculate karna, average nikaalna — sab ko alag functions mein likhna chahiye.

Question No 4: Given the following web form inputs, identify any syntax errors and correct them:

- Name: **Amjad Ali**
- Email: **amjadali@gmail**
- Date: **01/01/2024**

✓ Answer:

Errors:

1. ✓ **Name:** No error (Correct)
2. ✗ **Email:** Syntax Error — **Missing domain**
 - ✗ amjadali@gmail
 - ✓ **Corrected:** amjadali@gmail.com
3. ✓ **Date:** No error (Correct format: DD/MM/YYYY)

✓ Final Correct Form Inputs:

- Name: **Amjad Ali**
- Email: **amjadali@gmail.com** ✓
- Date: **01/01/2024**

Question No 5: You have developed a web application that takes the budget head and provides total. Analyse the following budget and identify any logical errors in the total amount.

◆ **Given Budget:**

- Rent: **\$1000**
- Utilities: **\$150**
- Groceries: **\$200**
- Total: **\$1000 + \$150 + \$200 = \$1500**

✓ **Correct Calculation:**

Let's add the values:

$$1000 + 150 + 200 = 1350$$

But total is written as **1500** — ✗ **This is a logical error.**

✓ **Corrected Budget:**

- Rent: \$1000
- Utilities: \$150
- Groceries: \$200
- ✓ **Correct Total = \$1350**

The End

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