

## BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, PESHAWAR

Higher Secondary School Certificate (H.S.S.C.) Examination — Inter Part-I

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| Inter Part-I | <b>COMPUTER SCIENCE</b><br>PR - XI (A-I-A) (24) | 2024 |
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**Instructions (printed in Urdu on the sheet):** 1. Each question has four circles; fill in only the circle of the correct answer. 2. Use a blue or black pen to fill the circles. 3. Filling more than one circle will be treated as a wrong answer.

**SECTION - A**

Time Allowed: 20 Min

Marks: 15

|    |                                                                                                                                                                                                                                                                                                  |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | The data that is to be moved to and from the memory is stored temporarily in ____ register.<br><input type="radio"/> Counter <input type="radio"/> PC <input type="radio"/> M.A.R <input type="radio"/> M.B.R                                                                                    |
| 2  | A type of satellite that revolves around the earth orbit at the same speed as the earth is ____.<br><input type="radio"/> HEO <input type="radio"/> MEO <input type="radio"/> LEO <input type="radio"/> GEO                                                                                      |
| 3  | For connecting hard-disk to a computer system, a fastest cable technology among the given is ____.<br><input type="radio"/> IDE Cable <input type="radio"/> PCIC Cable <input type="radio"/> FD Cable <input type="radio"/> SATA Cable                                                           |
| 4  | The data is divided into pieces, on the data-link layer, each piece is called a ____.<br><input type="radio"/> Packet <input type="radio"/> Fragment <input type="radio"/> Frame <input type="radio"/> Segment                                                                                   |
| 5  | Encryption of data into cipher code is done at ____ layer of the OSI model.<br><input type="radio"/> Application <input type="radio"/> Presentation <input type="radio"/> Session <input type="radio"/> Network                                                                                  |
| 6  | The layer of OSI model providing interface for downloading a video from a website is ____ layer.<br><input type="radio"/> Application <input type="radio"/> Presentation <input type="radio"/> Session <input type="radio"/> Network                                                             |
| 7  | Line-of-sight communication is required for ____ wireless technology.<br><input type="radio"/> Radio <input type="radio"/> Wimax <input type="radio"/> Wifi <input type="radio"/> Infrared                                                                                                       |
| 8  | Creating a table in database you need to use ____ type of language.<br><input type="radio"/> DML <input type="radio"/> DCL <input type="radio"/> DDL <input type="radio"/> DTL                                                                                                                   |
| 9  | The component of a computer that instructs the computer what to do and how to do is ____.<br><input type="radio"/> Software <input type="radio"/> Hardware <input type="radio"/> Processor <input type="radio"/> Memory                                                                          |
| 10 | Connecting an ultrasound machine to a computer, you need to install ____.<br><input type="radio"/> Utility software <input type="radio"/> Firmware <input type="radio"/> Malware <input type="radio"/> Device driver                                                                             |
| 11 | The announcement in loudspeaker from your mosque is an example of ____ type of communication.<br><input type="radio"/> Half-duplex <input type="radio"/> Full-duplex <input type="radio"/> Simplex <input type="radio"/> Bi-directional                                                          |
| 12 | The binary data (0's and 1's) is stored on CDs in the form of ____.<br><input type="radio"/> 0's and 1's <input type="radio"/> Pits and lands <input type="radio"/> 0 volt and 5 volt <input type="radio"/> OFF and ON                                                                           |
| 13 | The IP-V4 address is of ____ bits.<br><input type="radio"/> 28 <input type="radio"/> 32 <input type="radio"/> 64 <input type="radio"/> 128                                                                                                                                                       |
| 14 | Flash memory (USB memory device) is an example of ____.<br><input type="radio"/> EP-ROM <input type="radio"/> P-ROM <input type="radio"/> EEPROM <input type="radio"/> ROM                                                                                                                       |
| 15 | The primary function of BIOS (Basic Input Output System) in a computer system is ____.<br><input type="radio"/> Manages the kernel <input type="radio"/> Controls display settings<br><input type="radio"/> Initialize I/O during boot process <input type="radio"/> Encryption in communication |

**Note:** Time allowed for Section - B and Section - C is 2 Hours and 40 minutes.

**SECTION - B**

Marks: 40

**Q2: Attempt any TEN parts. Each part carries FOUR marks.**

- Define a computer and list its four basic components.
- Write note on Mainframe Computer.
- Write detailed note on cache memory. Why it is important?
- Write the function of Accumulator Register and Instruction Register.
- Elaborate Volatile Memory. Also discuss the SRAM and DRAM?
- Define normalization in content of database. Identify the anomalies that normalization aims to remove.
- Write note on complex instruction set Architecture.
- Discuss the function of router.
- Elaborate the Peer to Peer Network Architecture.
- List the functions performed by the Network Layer in a TCP/IP model.
- Define software. Discuss the System Software and Application Software.
- Define Database. List down five advantages of Database Management System.
- What is Entity Relationship Diagram (ERD)? Define Entity, Attribute and Relationship.

**SECTION - C**

Marks: 20

**Note:** Attempt any TWO questions. All questions carry equal marks.

- Q3:    (a)    What is Central Processing Unit? Elaborate its functionality.  
         (b)    Discuss the basic components of CPU with the help of diagrams.
- Q4:            Describe the following modes of communication with examples:  
         (a) Simplex Communication  
         (b) Half-Duplex Communication  
         (c) Full-Duplex Communication  
         (d) Synchronous Communication  
         (e) Asynchronous Communication
- Q5:    (a)    Write short note on Bluetooth Wireless Technology.  
         (b)    Define Network Topology. Discuss the Characteristics of any two types of topology.

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**Notes**

1. Typeset from the board paper. Board wording, spelling and notation are reproduced as printed, including slips; nothing has been corrected.

2. The source answer sheet arrived with the bubbles already shaded in. Options are given unmarked; no answer key is included.

3. The Section A instructions are printed in Urdu on the board sheet; an English rendering is given here.

4. The 2024 subjective sheet prints no section totals. Section B (ten parts x four marks = 40) and Section C (20) are given from the printed part marks and the pattern of the other Peshawar years.

5. Kept as printed: Q.15 “Initialize I/O during booth process” (booth for boot); Section B (vi) “in content of database”.