

Version No.			

ROLL NUMBER						



0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
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0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

Answer Sheet No. _____

Sign. of Candidate _____

Sign. of Invigilator _____

COMPUTER SCIENCE HSSC-I

SECTION – A (Marks 13)

Time allowed: 20 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. **Do not use lead pencil.**

Q.1 Fill the relevant bubble for each part on the bubble sheet. Each part carries one mark.

- Which one of the following is the most suitable to print salary slips of 2000 employees on a very cheap cost?
 - Dot matrix printer
 - Desk jet printer
 - Laser printer
 - Plotter
- Cache Memory works between:
 - RAM and Processor
 - RAM and ROM
 - Processor and Hard Disk
 - ROM and Hard Disk
- In which of the following categories a memory card lies?
 - Magnetic Memory
 - Secondary Memory
 - Optical Memory
 - Flash Memory
- How many memory locations can be addressed with 64-bit address bus?
 - 32
 - 64
 - 2^{32}
 - 2^{64}
- Which one of the following expansion slots has highest video performance?
 - PCI
 - PCI Express
 - SATA
 - AGP
- Which one of the following registers holds the address of the next instruction to be executed?

- a) Program Counter
 - b) Instruction Register
 - c) Counter Register
 - d) Data Register
7. The IP Address 191.10.1.0 lies in:
- a) Class A
 - b) Class B
 - c) Class C
 - d) Class D
8. Email sending mechanism is an example of the following mode of ___ communication.
- a) Simplex
 - b) Simple Duplex
 - c) Half Duplex
 - d) Full Duplex
9. Cellular communication dividing the physical region into sections us called:
- a) Pods
 - b) Cells
 - c) Cubes
 - d) Sectors
10. Which one of the following wireless technologies is used in TV remotes and TV?
- a) Infrared
 - b) Bluetooth
 - c) Wi-Fi
 - d) Wi-Max
11. What is the type of this statement? **“Create table Student”**
- a) DCL
 - b) DDL
 - c) DXL
 - d) DML
12. The relationship between entities AUTHOR and BOOK is:
- a) Unary
 - b) Binary
 - c) Ternary
 - d) Recursive
13. Identify the cardinality of the following relationship:
One COLLEGE can have many DEPARTMENTs, One DEPARTMENT belongs to one COLLEGE.
- a) One-to-One
 - b) One-to-Many
 - c) Many-to-Many
 - d) Many-to-One
-



Federal Board HSSC-I Examination
Computer Science Model Question Paper
(Curriculum 2009)

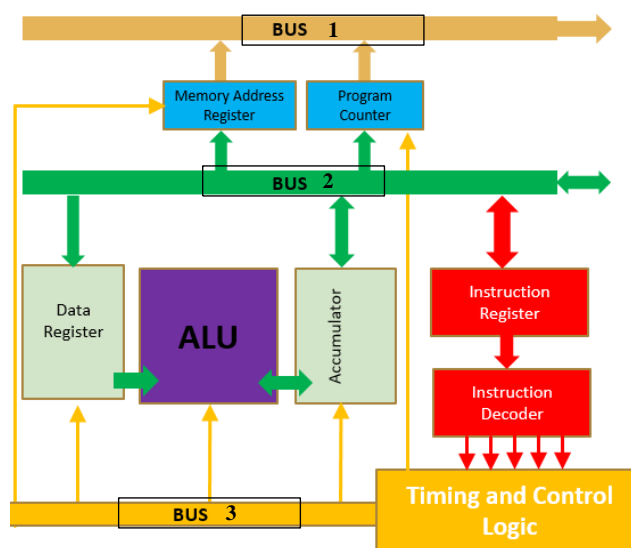
Time allowed: 2.40 hours

Total Marks: 62

Note: Answer all parts from Section 'B' and all questions from Section 'C' on the **E-sheet**.
Write your answers on the allotted/given spaces.

SECTION – B (Marks 42)

- Q2.** Attempt all parts. All parts carry equal marks. (14×3=42)
- Write down purpose of any three (03) ribbon cables. (3)
OR
Write down the purpose of BIOS in system unit. (3)
 - Write down any one application of the following scanner types: (3)
 - Handheld scanner
 - Flatbed scanner
 - Optical scanner**OR**
Write down any one application of the following software: (3)
 - Licensed software
 - Shareware
 - Freeware
 - Give one (01) advantage and two(02) disadvantages of wireless network card. (3)
OR
Give any three (03) examples of Data processing instruction. (3)
 - Differentiate between Intel P4 and AMD Athlon processors with reference to clock speed, bus width and architecture. (3)
OR
Give three differences between impact and non-impact printers. (3)
 - What is an Instruction Cycle? Illustrate with diagram. (2+1)
OR
Write down three differences between SIMM and DIMM memory chips. (3)
 - The following Microprocessor diagram has three internal system buses, observe the diagram carefully and name the Buses shown in the diagram. (3)



OR

- vii. Draw a labelled diagram that shows working of Arithmetic Logic Unit. (3)
Write down any three (03) differences between Client-Server and Peer-to-Peer network architecture. (3)

OR

Categorize the following topologies as per their characteristics (Star, Ring, Bus, Mesh). (1.5+1.5)

Expensive	Least Cabling

- viii. Give any three limitations of Mobile Communication System. (3)

OR

Write any three differences between volatile and non-volatile memory. (3)

- ix. Complete the required information in the following table against the said satellites. (3)

Satellites	Distance from the Earth	Purpose
GEO		
MEO		
LEO		

OR

Complete the following table: (3)

Register	General/ Special Purpose	Use
Data register		
Base Register		
MBR		

- x. Write down any one usage each of Wi Max, Bluetooth, and Infra-red technologies. (3)

OR

A team consists of many players and a player plays for only one team. Draw an Entity Relationship Diagram and identify cardinality for the said situation. (2+1)

- xi. Give any three differences between synchronous and asynchronous transmission. (3)

OR

- xii. Differentiate between Circuit switching and Packet switching with example. (3)
What are Columnar, Tabular and Datasheet Form views? (3)

OR

What is the purpose of following types of queries? (3)

- a. Update b. Select c. Delete

- xiii. Write down any three (03) advantages of using DBMS over file management system? (3)

OR

Compare the Relational database model with Network database model. (any 3) (3)

- xiv. Differentiate between soft copy and hard copy with example. (3)

OR

Specify the suitable data types for Roll No, DOB and Address. Identify the suitable Primary key. Also write down the number of tuples and attributes in the table. (1.5+0.5+1)

Registration No	Roll No	Name	DOB	Address	Phone
CS12/05	1	ALI	12-05-1999	G-7 Islamabad	9233658721
CS34/21	2	AMNA	26-08-1999	Cantt Rawalpindi	9234737536

SECTION – C (Marks 20)

Note: Attempt all questions. Marks of each question are given within brackets. (5x4 =20)

Q.3 Define port. Discuss any two (02) different types of ports. (1+4)

OR

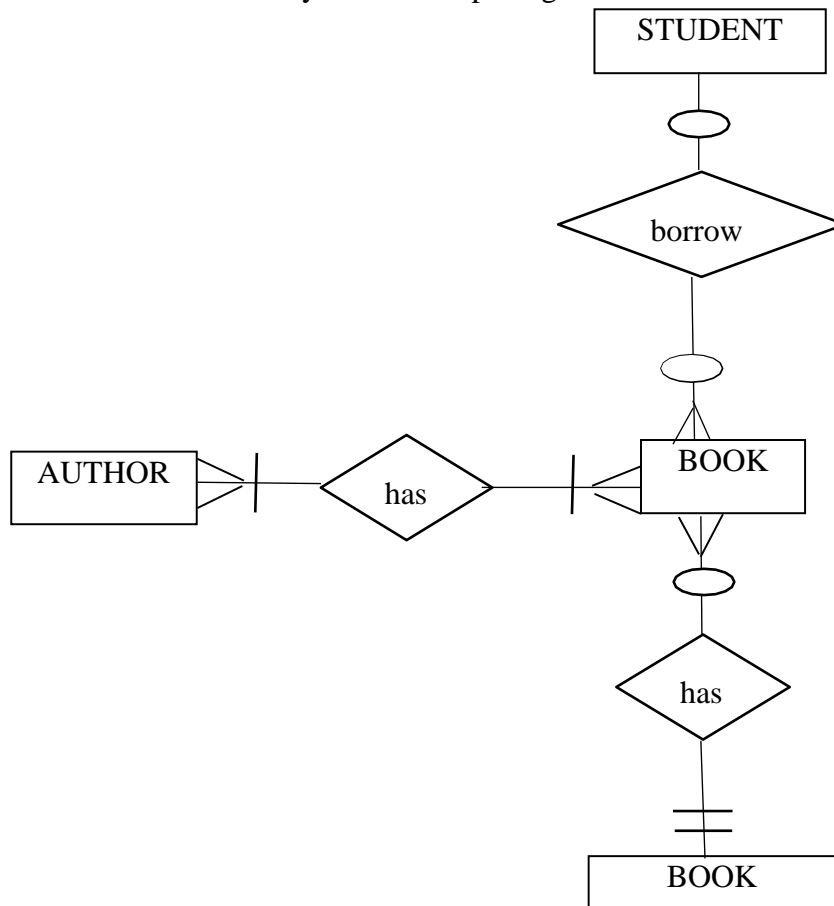
What is OSI layer model? Discuss any two (02) layers of OSI layer model. (1+4)

Q. 4 What are input pointing devices? Discuss any two (02) input pointing devices. (1+4)

OR

Explain the purpose and application of any two types of short distance wireless communication. (2.5+2.5)

Q.5 Understand the Entity Relationship Diagram and answer the following questions: (5)



- i. Identify one example of one-to-many relationship.
- ii. Indicate the degree of relationship between BOOK and AUTHOR.
- iii. Identify the maximum cardinality between BOOK and BOOK CATEGORY.
- iv. How many maximum STUDENTs borrow a BOOK?
- v. How many minimum BOOKs available in a BOOK CATEGORY?

OR

Normalize the following table data up to 2NF and 3NF. Table is already in 1NF. (2+3)

SID	CID	S-NAME	COURSE	GRADE	TEACHER	CONTACT NO
1	IS318	AHMED	DATABASE	A	HARIS	9250415
1	IS301	AHMED	PROGRAMMING	B	MUDASSAR	9250416
2	IS318	JAWAD	DATABASE	A	HARIS	9250415
3	IS318	SAMAR	DATABASE	B	HARIS	9250415
4	IS301	BAJWA	PROGRAMMING	A	MUDASSAR	9250416
4	IS318	BAJWA	DATABASE	B	HARIS	9250415

Q.6 What is optical disk? Describe any two (02) types of optical disks? (1+4)

OR

Describe Flash memory and Memory card with one advantage and disadvantage. (2.5+2.5)