



Roll No:

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Answer Sheet No: \_\_\_\_\_

Signature of Candidate: \_\_\_\_\_

Signature of Invigilator: \_\_\_\_\_

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

**SECTION – A**

Time allowed: 20 minutes

Marks: 15

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Note: Section-A is compulsory and comprises pages 1-2. All parts of this section are to be answered on the question paper itself. It should be completed in the first 20 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

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**Q.1 Encircle the correct option i.e. A / B / C / D. All parts carry equal marks.**

- i. Spreadsheet is a type of:
- |                     |                         |
|---------------------|-------------------------|
| A. System software  | B. Application software |
| C. Utility software | D. Language processor   |
- ii. Which of the following is an impact printer?
- |                       |                  |
|-----------------------|------------------|
| A. Dot matrix printer | B. Laser printer |
| B. Ink jet printer    | D. Plotter       |
- iii. Which memory communicates directly with the CPU?
- |                |                     |
|----------------|---------------------|
| A. Main memory | B. Secondary memory |
| C. Hard disk   | D. USB flash drive  |
- iv. Which of the following memory devices has sequential access to data?
- |                  |                   |
|------------------|-------------------|
| A. Magnetic disk | B. Optical memory |
| C. Magnetic tape | D. Chip memory    |
- v. Through which bus, instructions are transferred from main memory to instruction register?
- |                    |                |
|--------------------|----------------|
| A. Control bus     | B. Address bus |
| C. Instruction bus | D. Data bus    |
- vi. How many distinct operations can be performed if op-code of a microprocessor consists of 4 bits?
- |       |       |
|-------|-------|
| A. 4  | B. 8  |
| C. 16 | D. 32 |
- vii. What is the interface that provides connection to external devices called?
- |                    |                |
|--------------------|----------------|
| A. Expansion slot  | B. Memory slot |
| C. Disk controller | D. Port        |

**DO NOT WRITE ANYTHING HERE**

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- viii. Which card displays text, graphics and images on the screen?  
A. Network card                      B. Gigabit card  
C. Modem card                        D. Video graphics card
- ix. In which communication mode data can be sent and received in both directions but not simultaneously?  
A. Simplex mode                      B. Half-duplex mode  
C. Full-duplex mode                  D. Synchronous transmission
- x. Which of these uses a start/stop bit for data transmission?  
A. Asynchronous transmission    B. Synchronous transmission  
C. Half-duplex transmission        D. Full-duplex transmission
- xi. Which orbit is located directly above the earth's equator?  
A. Geostationary Earth Orbit      B. Medium Earth Orbit  
C. Low Earth Orbit                  D. GALILEO
- xii. What is used to create web pages?  
A. HTML                                B. HTTP  
C. WAP                                 D. TCP
- xiii. Duplication of data in different files is called:  
A. Data inconsistency                B. Data redundancy  
C. Data overflow                      D. Invalid data
- xiv. In which database model data is organized in tree-like structure?  
A. Hierarchical Database          B. Network Database  
C. Relational Database              D. Object-Oriented Database
- xv. What is a key field called that is used in relationship between tables whose value matches a primary key in the other table?  
A. Candidate key                      B. Secondary key  
C. Alternate key                        D. Foreign key

For Examiner's use only

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Q. No.1: Total Marks: 

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|----|
| 15 |
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Marks Obtai

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|----|
| 15 |
|    |



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

Time allowed: 2.40 hours

Total Marks: 60

Note: Sections 'B' 'C' and 'D' comprise pages 1-2 and questions therein are to be answered on the separately provided answer book. Use supplementary answer sheet i.e., sheet B if required. Write your answers neatly and legibly.

**SECTION – B (Marks 21)**

**Note: Section-B consists of following topics of the syllabus:**

- |                                |                       |
|--------------------------------|-----------------------|
| 1. Overview of Computer System | 2. Computer Memory    |
| 3. Central Processing Unit     | 4. Inside System Unit |

- Q.2 Attempt any **SEVEN** parts from the following. All parts carry equal marks. (7 × 3 = 21)
- Give any three modern uses of computers in daily life.
  - Differentiate between hand-held scanner and barcode reader.
  - Define the three types of ROM.
  - How portable hard-drive is useful?
  - Write down functions of any three special purpose registers.
  - Draw and explain the three steps of instruction cycle.
  - Differentiate between Intel and AMD processors.
  - What is the purpose of the following expansion slots?
    - AGP
    - PCI
    - PCI Express
  - What is the function of BIOS in the computer?
  - Define the following ports:
    - USB port
    - Firewire port
    - HDMI port

**SECTION – C (Marks 21)**

**Note: Section-C consists of following topics of the syllabus:**

- |                                   |                           |
|-----------------------------------|---------------------------|
| 5. Network Communication Protocol | 6. Wireless Communication |
| 7. Database Fundamentals          | 8. Database Development   |

- Q.3 Attempt any **SEVEN** parts from the following. All parts carry equal marks. (7 × 3 = 21)
- Define network communication and name its basic components.
  - Give any three limitations of guided communication media.
  - Differentiate between Client-Server and Peer-to-Peer networks.
  - Give any three feature of Star topology.
  - Define the following wireless communications technologies:
    - Bluetooth
    - Wi-Max
    - Cellular
  - What is Wireless Application Protocol (WAP)?
  - Give any three responsibilities of DBA.
  - Differentiate between Cardinality and Modality with one example.
  - Why is it necessary to normalize a relational database?
  - What is the difference between Update Query and Append Query?

**SECTION – D** (Marks 18)

**Note:** Attempt any **THREE** questions. All questions carry equal marks. (3 × 6 = 18)

Q.4 Discuss in detail the classification of Digital Computers. (6)

Q.5 Explain different types of Instruction Formats with examples. (6)

Q.6 Describe seven layers of OSI model. (6)

Q.7 Define DBMS. Give advantages of DBMS over file management system. (6)

