COMPUTER SCIENCE HSSC–I

SECTION – A (Marks 15)

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Time allowed: 20 Minutes

Version Number	3	1	2	4

Note: Section – A is compulsory. All parts of this section are to be answered on the separately provided OMR Answer Sheet which 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.

Q. 1 Choose the correct answer A / B / C / D by filling the relevant bubble for each question on the OMR Answer Sheet according to the instructions given there. Each part carries one mark.

1) If data is **NOT** updated in a file in 'File based data management system', what type of problem will it cause?
   A. Data overflow B. Data redundancy C. Data deficiency D. Data inconsistency

2) What is a thing of interest to an organization called, about which data is to be held in a database?
   A. Attribute B. Field C. Tuple D. Entity

3) Which of the following database object stores all the information of a database?
   A. Table B. Query C. Report D. Form

4) Which of the following is **NOT** a social media network application?
   A. Hotmail B. Twitter C. WhatsApp D. Facebook

5) A barcode reader is a _____ device.
   A. Output B. Input C. Storage D. Processing

6) Which of the following language translator converts the entire program into machine language before execution by the computer?
   A. Interpreter B. Debugger C. Compiler D. Assembler

7) 1 MB (Mega Byte) = _____ Bytes.
   A. 2^{20} B. 2^{30} C. 2^{40} D. 2^{10}

8) Which of the following cache memory exists inside the CPU?
   A. L2 B. L3 C. L4 D. L1

9) Which of the following bus sends timing and control signals to all parts of the computer?
   A. Data bus B. Control bus C. Instruction bus D. Address bus

10) Which of the following instructions transfers data from a memory location to a register, register to memory and register to register?
    A. LD B. STO C. JMP D. MOV

11) What is BIOS?
    A. Port B. Interface C. Non-volatile ROM chip D. Program in RAM

12) Which card displays text, graphics and images on the screen?
    A. Sound card B. Modem card C. Graphics card D. Network card

13) In which communication mode data can be sent and received in one direction only?
    A. Half-duplex B. Full-duplex C. Synchronous D. Simplex

14) Which of the following transmission modes uses a start/stop bit for data transmission?
    A. Asynchronous B. Simplex C. Duplex D. Synchronous

15) Which of the following protocols is used for the Internet?
    A. TCP/IP B. WAP C. X.25 D. HTTP

COMPUTER SCIENCE HSSC–I

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Time allowed: 2:40 Hours **Total Marks Sections B, C and D: 60**

NOTE: The Questions of sections B, C and D 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 Answer any SEVEN parts. All parts carry equal marks. **(7 x3 = 21)**

(i) Give any three application areas each of mainframe and super computers.

(ii) Give any three advantages of Cloud Computing.

(iii) What is chip memory? Give two examples.

(iv) What will happen if cache memory is removed from a computer?

(v) State three differences between DVD and Blu-ray disk.

(vi) What is the function of ALU in the computer?

(vii) Name the parts of computer instruction cycle and show them diagrammatically.

(viii) What is the function of expansion slot on the motherboard?

(ix) What is the function of SATA interface on the motherboard?

(x) Give three advantages of DDR SDRAM?

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 Answer any SEVEN parts. All parts carry equal marks. **(7 x3 = 21)**

(i) State three differences between synchronous and asynchronous data transmission.

(ii) What is guided communication media? Give two examples.

(iii) Give three characteristics of Metropolitan Area Network (MAN).

(iv) Give any three advantages of wireless networks.

(v) What is Wi-Max technology?

(vi) Give any three applications of GPS (Global Positioning System).

(vii) Give any three disadvantages of file management system over DBMS.

(viii) Why is it necessary to normalize a relational database?

(ix) Differentiate between cardinality and modality.

(x) Give any three advantages of using Reports in Access database.

SECTION – D (Marks 18)

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

Q. 4 What is computer hardware? Explain the purpose of the following devices: **(2+4)**

a.	Touchscreen	**b.**	Scanner
c.	Magnetic stripe card reader	**d.**	Plotter

Q. 5 What is main memory? Explain the three types of main memory in detail? **(1+5)**

Q. 6 Explain the function of general purpose and special purpose registers used in computers. **(3+3)**

Q. 7 What is OSI model? Give brief description of any five layers of OSI model. **(1+5)**

COMPUTER SCIENCE HSSC–I

SECTION – A (Marks 15)

(Old Syllabus)

Time allowed: 20 Minutes

Version Number	7	1	2	1

Note: **Section – A is compulsory. All parts of this section are to be answered on the separately provided OMR Answer Sheet which 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.**

Q. 1 **Choose the correct answer A / B / C / D by filling the relevant bubble for each question on the OMR Answer Sheet according to the instructions given there. Each part carries one mark.**

1) The electronic circuit that executes computer instructions is called:
A. Monitor B. Hard disk C. CPU D. Keyboard

2) Another word for pointer is:
A. Cursor B. Pixel C. Puck D. Chip

3) A computer network must contain at least _____ number of computers.
A. One thousand B. Three C. Twenty D. Two

4) The set of rules to exchange data in a communication network is called:
A. Method B. Procedure C. Protocol D. Token

5) The process of transferring data electronically from one place to another is called:
A. Data processing B. Data communication
C. Data sequencing D. Data sender

6) The conversion of an analog signal to a digital signal is known as:
A. Demodulation B. Modulation C. Conversion D. Merging

7) What is used to control all the parts of a manufacturing process?
A. ATM B. CAD C. CAM D. MICR

8) Which memory is used to speed up the computer processing?
A. ROM B. RAM C. BIOS D. HDD

9) What happens **FIRST** when CPU executes an instruction?
A. Fetch B. Execute C. Decode D. Terminate

10) CPU places address in _____ if memory location is to be read.
A. MAR B. MBR C. Accumulator D. PC

11) The program that contains instructions to operate a device is called:
A. Device driver B. Device operator
C. Device linking D. Device system

12) The restricted access to the server computer room is a form of:
A. Logical security B. Enterprise security
C. Physical security D. User security

13) A small image that represents a program, an instruction, or a file is called:
A. Menu B. Dialog box C. Windows D. Icon

14) The tool used to find a similar or an alternative word in a document is called:
A. Finder B. Thesaurus C. Dictionary D. Style

15) The combination of letters and numbers such as A5, B9 and D15 refers to:
A. Row identifier B. Cell address C. Locked cell D. Passive cell

COMPUTER SCIENCE HSSC–I

(Old Syllabus)

Time allowed: 2:40 Hours **Total Marks Sections B, C and D: 60**

NOTE: The Questions of sections B, C and D are to be answered on the separately provided answer book. Write your answers neatly and legibly.

SECTION – B (Marks 21)

Note: Section – B consists of following topics of the syllabus:

a.	Basic concepts of IT	**b.**	Data Communication
c.	Hardware and System Software	**d.**	Information Networks
e.	Applications and use of computers		

Q. 2 Answer any SEVEN parts. All parts carry equal marks. **(7 x3 = 21)**

(i) Define the term information technology (IT).

(ii) Describe shortly the importance of I/O processor.

(iii) What is sequential access memory? Also give an example.

(iv) How does information network provide facility in education?

(v) Define workgroup computing.

(vi) Discuss shortly the basic elements of a data communication system.

(vii) How is data transmitted in a synchronous transmission?

(viii) Briefly discuss e-commerce.

(ix) What is computer architecture?

(x) Differentiate between RAM and ROM.

SECTION – C (Marks 21)

Note: Section – C consists of following topics of the syllabus:

a.	Security copyright and the law	**b.**	Operating systems (Windows)
c.	Word processing (using MS-Word 2000)	**d.**	Spreadsheet (Using MS-Excel 2000)
e.	Internet, Internet browsing and E-mail		

Q. 3 Answer any SEVEN parts. All parts carry equal marks. **(7 x3 = 21)**

(i) Describe any three advantages of data backup.

(ii) What is copyright infringement?

(iii) Why is operating system necessary for computer?

(iv) Discuss the use of windows explorer.

(v) What is word processing software?

(vi) How is spell checking necessary in a word processor?

(vii) Describe the use of spread sheet software.

(viii) What is automatic recalculating in spread sheet?

(ix) Write any advantages of internet.

(x) What are search engines? List any four search engines.

SECTION – D (Marks 18)

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

Q. 4 Explain information system development, implementation and maintenance steps.

Q. 5 Define network topology. Briefly explain its types.

Q. 6 Explain the three types of data communication modes.

Q. 7 What is a computer virus and how is it spread and infects other computers?