COMPUTER SCIENCE HSSC–I

SECTION – A (Marks 15)

REVISED SYLLABUS

Time allowed: 20 Minutes | **Version Number** | 1 | 8 | 8 | 3 |

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) A record is also called _____ in RDBMS.
   A. Field B. Tuple C. Entity D. Attribute

2) What is the 'key field' called that is used in a relationship between tables whose value matches a primary key in another table?
   A. Alternate key B. Foreign key C. Candidate key D. Secondary key

3) Which of the following is **NOT** a productivity software?
   A. Word processor B. Graphics software
   C. Spreadsheet D. Windows

4) Which of the following is a pointing input device?
   A. Scanner B. Joystick C. Keyboard D. Plotter

5) Which of the following is a temporary memory?
   A. Flash B. PROM C. ROM D. RAM

6) 1 Kilo Byte = _____ Bytes.
   A. 2^{30} B. 2^{40} C. 2^{10} D. 2^{20}

7) Which of the following devices has sequential access to data?
   A. Magnetic tape B. Chip memory C. Magnetic disk D. Optical disk

8) Where are registers located?
   A. Inside DVD B. Inside CPU
   C. Inside Hard disk D. Inside memory

9) Where are the results of ALU operations transferred?
   A. Data register B. Accumulator register
   C. Counter register D. Base register

10) Which of the following provides interface to a computer network?
    A. Port B. BIOS C. NIC D. Modem

11) DSL stands for:
    A. Direct subscriber line B. Digital subscriber line
    C. Direct service line D. Data service line

12) In which communication mode data can be sent and received in both directions but not simultaneously?
    A. Full-duplex B. Synchronous C. Simplex D. Half-duplex

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

14) Which orbit is located directly above the earth's equator?
    A. LEO B. GALILEO C. GEO D. MEO

15) Duplication of data in different files is called:
    A. Data redundancy B. Data deficiency
    C. Data inconsistency D. Data overflow

COMPUTER SCIENCE HSSC–I

Time allowed: 2:40 Hours **Revised Syllabus** **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 of supercomputers.

(ii) What is IoT (Internet of Things)?

(iii) Write any three differences between DRAM and SRAM.

(iv) Why data access time in sequential access devices is more than that in random access devices?

(v) Give any three advantages of using flash memory.

(vi) What is the function of control unit in a computer?

(vii) Give any three differences between CISC and RISC architectures.

(viii) What is the function of BIOS in a computer?

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

(x) Give any three differences between SIMM and DIMM.

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) Define any three basic network components.

(ii) Give one example each of simplex, half-duplex and full-duplex communication modes.

(iii) Give any three characteristics of VPN (Virtual Private Network).

(iv) Give any three advantages of wireless networks.

(v) What is Wi-Max?

(vi) Give any three limitations of mobile communication systems.

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

(viii) A company sells many products to their customers. There are many suppliers who supply various products. Draw an ER-diagram of entities; Company, Supplier and Customer.

(ix) Differentiate between cardinality and modality.

(x) Give any three advantages of using Forms 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 a computer software? Explain System software and Application software in detail by giving examples. **(1+5)**

Q. 5 What is secondary memory? Explain any two secondary memory devices in detail. **(1+5)**

Q. 6 Describe the purpose of the following types of ports in a computer system; **(2+2+2)**

i. USB port **ii.** Fire Wire port **iii.** HDMI port

Q. 7 What is network topology? Explain Star, Ring and Bus topologies with suitable diagrams. **(01+03+02)**

COMPUTER SCIENCE HSSC–I

SECTION – A (Marks 15)

(Old Syllabus)

Time allowed: 20 Minutes | **Version Number** | 1 | 8 | 8 | 8 |

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. In which of the following ways can the text **NOT** be aligned in the main text?
   A. Right B. Centre C. Top D. Left
2. By default, how many worksheets are present in MS Excel Workbook?
   A. 4 B. 5 C. 2 D. 3
3. The speed of laser printer is measured in:
   A. Pages per minute B. Lines per minute
   C. Characters per second D. Words per minute
4. Another name for main memory is:
   A. Cache memory B. Primary memory
   C. Secondary memory D. Permanent memory
5. What type of network is the internet?
   A. WAN B. Not a network C. LAN D. MAN
6. The layer that is concerned with addressing and routing is called:
   A. Physical B. Transport C. Network D. Data Link
7. ISDN stands for:
   A. Intranet Services Digital Network B. Integrated Services Digital Network
   C. Internet Services Digital Network D. Improved Speed Digital Network
8. Start/Stop bits are not required in _____ type of transmission.
   A. Synchronous B. Asynchronous C. Digital D. Analog
9. Many banks provide the facility of:
   A. ATM B. CBT C. CAD D. CAM
10. Fetch, decode and execute the instructions is the function of:
    A. ROM B. CU C. ALU D. RAM
11. The address bus is:
    A. Multi directional B. Circular C. Bidirectional D. Unidirectional
12. Input/Output devices are also called as:
    A. Attached devices B. Network devices
    C. Peripheral devices D. Central devices
13. The capability of an operating system to run two or more programs at once is called:
    A. Multi-operating B. Multi-paging
    C. Multi-processing D. Multi-tasking
14. Software can be removed/inserted through:
    A. Debugger B. Linker C. Control panel D. Compiler
15. Which of the following is **NOT** an example of antivirus program?
    A. Dr. Solomon B. Chernobyl C. Norton D. McAfee

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. 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:

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) Briefly explain the role of main memory in a computer system.

(ii) Differentiate between CAD and CAM.

(iii) How can computer be useful in education?

(iv) Distinguish between static memory devices and dynamic memory devices.

(v) Write two advantages of using plotter over printers. Also write one drawback of plotter

(vi) What is groupware and workgroup computing?

(vii) What is bandwidth? Differentiate between Narrowband and Broadband.

(viii) What are the advantages of Dedicated Server Networks over Peer to Peer Networks?

(ix) Define system software. Briefly describe any two of its categories.

(x) In which type of network do we use TCP/IP and why?

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) How can we protect our data from viruses?

(ii) What is copyright? What types of works are protected by copyright?

(iii) Distinguish between Internet Explorer and Windows Explorer.

(iv) Briefly Explain any three important features of Word Processor.

(v) What are the rules to set names for file and folder in Windows?

(vi) Distinguish between insert and overtype modes for entering text in a Word Processor.

(vii) Differentiate between a formula and a function in spread sheet programs.

(viii) What do you know about web page and web server?

(ix) Define E-mail. Give some limitations of using E-mail.

(x) Mention any three application areas where spread sheet can be useful.

SECTION – D (Marks 18)

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

Q. 4 Describe any three network topologies with the help of diagrams. **(2+2+2)**

Q. 5 What are the types of buses used in the computer circuits? Also explain their functions. **(1.5+4.5)**

Q. 6 Explain the following terms with reference to MS Word: **(2+2+2)**

i. Word Wrap **ii.** Thesaurus **iii.** Headers and Footers

Q. 7 **(a)** Distinguish between Impact and Non-Impact printers. **(2)**

(b) Write short notes on: **(2+2)**

i. Computer Simulation **ii.** Weather forecast