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**Answer Sheet No._____**

**Sign. of Candidate _____**

**Sign. of Invigilator _____**

# COMPUTER SCIENCE SSC–I (2nd Set)
## SECTION – A (Marks 12)
### Time allowed: 15 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. Each part carries one mark.**

(1) Which computer professional has the skills to edit and manipulate audio/video files?
    A. Programmer ◯    B. Multimedia designer ◯
    C. Web designer ◯    D. Software engineer ◯

(2) Software that is used to detect and remove the viruses from the computer is called:
    A. pirated software ◯    B. antivirus ◯
    C. spyware ◯    D. virus ◯

(3) An operating system is a/an:
    A. System software ◯
    B. Utility program ◯
    C. Application software ◯
    D. Language processor ◯

(4) Which one of the following is an absolute cell reference in MS Excel?
    A. A1 ◯    B. A1$ ◯
    C. A$1$ ◯    D. $A$1 ◯

(5) The communication over telephone line is an example of the following transmission mode:
    A. Simplex mode ◯    B. Half duplex mode ◯
    C. Full duplex mode ◯    D. Synchronous ◯

(6) Which one of the following operating system is suitable for tasks where large amount of data has to be collected and processed on regular basis:
    A. Real time operating system ◯
    B. Time sharing operating system ◯
    C. Batch operating system ◯
    D. Single user operating system ◯

(7)    The default MS Word document window name is:
        A.    Document1    ◯    B.    File1    ◯
        C.    WPD1    ◯    D.    Word1    ◯

(8)    Which one of the following medium transmits data using light waves?
        A.    Twisted pair cable    ◯
        B.    Coaxial cable    ◯
        C.    Fibre optic cable    ◯
        D.    Telephone cable    ◯

(9)    Which one of the following provides high speed internet connection?
        A.    Dial up connection    ◯    B.    DSL connection    ◯
        C.    CDMA connection    ◯    D.    ISDN connection    ◯

(10)    Security threats are transferred from one system to another due to:
        A.    Exchange of data and program    ◯
        B.    Exchange of display screen    ◯
        C.    Dust in room    ◯
        D.    High temperature of room    ◯

(11)    Which one of the following is a communication device?
        A.    NIC    ◯    B.    GPS    ◯
        C.    ALU    ◯    D.    RAM    ◯

(12)    Which one of the following refers to the setting of margins, tab positions and line spacing in MS Word?
        A.    Tool    ◯    B.    Layout    ◯
        C.    Format    ◯    D.    Set up    ◯

_____

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

Time allowed: 2.45 hours                                    Total Marks: 43

Note:   Answer any nine parts from Section 'B' and attempt any two questions from Section 'C'
        on the separately provided answer book. Write your answers neatly and legibly.

## SECTION – B (Marks 27)

**Q.2**   Attempt any **NINE** parts from the following. All parts carry equal marks.   (9× 3 = 27)

i.      Write down any three applications of Mainframe computers?

ii.     How accuracy and delivery are the important characteristics of good
        communication system? Justify with one example of each.

iii.    Compare authorized and unauthorized access with one example of each.

iv.     How is peer to peer network different from client server network? Give any three
        differences.

v.      Write down any six characteristics of 4th generation of computers?

vi.     Compare GUI and CLI?

vii.    What is real time processing system? Write down any two applications of Real
        time processing system.

viii.   Identify the type of physical media used to develop a network of three computers
        at home. Justify your answer with two reasons.

ix.     Write down the use of following features in MS Word.
        a.      Header          b.      Equation Editor          c.      Section Break

x.      What is computer ethics? Write down any four moral guidelines for ethical use of
        computer technology?

xi.     Write down any three differences between LAN and WAN.

xii.    Write down any three differences between RAM and ROM.

xiii.   Why plotter is preferable over printer? Justify with two reasons.

## SECTION – C(Marks 16)

**Note:**  Attempt any **TWO** questions.                                    (8 × 2 = 16)

**Q.3**   Write down characteristics of the following network topologies with the help of
        diagrams.
        a.      Star            b.      Ring                                    **(4+4)**

**Q.4**   Explain any four functions of Operating System.                      **(2+2+2+2)**

**Q.5**   Use appropriate formulae for the following to determine the characteristics of a
        communication channel:                                                **(8)**
        • Data rate
        • Baud rate
        • Bandwidth
        • Signal to Noise Ratio

* * * * *

# COMPUTER SCIENCE SSC-I (2<sup>nd</sup> Set)
## Student Learning Outcomes Alignment Chart
### (Curriculum 2009)

| Sr N o | Section: Q. No. (Part no.) | Contents and Scope | Student Learning Outcomes | Cognitive Level ** | Allocated Marks in Model Paper |
|---|---|---|---|---|---|
| 1 | A: 1(i) | 1.2 Role of computer | ii) Know the scope of the following careers in IT: • Multimedia Designer | U | 1 |
| 2 | A:1(ii) | 6.2 Computer Viruses | iii) Know that the following software can help safeguard against viruses, worms, adware and spyware • Antivirus | K | 1 |
| 3 | A: 1(iii) | 1.5 Computer software | i) Define the following basic components of system software: • Operating System | K | 1 |
| 4 | A: 1(iv) | 3.2 Spreadsheet | i) Know the Basics of Spreadsheet Addressing cells (Relative and absolute addresses) | U | 1 |
| 5 | A: 1(v) | 5.1 Networks | iii) Define data transmission modes | U | 1 |
| 6 | A: 1(vi) | 2.2 Operating System | ii) Describe the following types of O.S. • Batch processing | U | 1 |
| 7 | A: 1(vii) | 3.1 Word Processing | ii) Manage a document ( Create, open, Save, Save As, Print) | U | 1 |
| 8 | A: 1(viii) | 4.2 Transmission Medium | ii) Discuss the following guided media • Fiber optic cable | U | 1 |
| 9 | A: 1(ix) | 5.3 Communication over the Networks | i) Explain the following types of lines which use the telephone networks for data communications. • Digital Subscriber Line (DSL) | U | 1 |
| 10 | A: 1(x) | 6.1 Computer Security | iii) Explain the following attacks • Virus | U | 1 |
| 11 | A: 1(xi) | 4.3 Communication Devices | Describe the uses of following communication devices • Network Interface card | U | 1 |
| 12 | A: 1(xii) | 3.1 Word Processing | vii) Format text (Text, Paragraph, Page) | A | 1 |
| 13 | B: 2(i) | 1.1 Introduction to Computer | iv) Understand the conventional classification of digital computers (Mainframe) | U | 3 |
| 14 | B: 2(ii) | 4.1 Basics of | iii) Discuss the following | U | 3 |

| | | Communication | properties of a good communication system<br> • Delivery<br> • Accuracy | | |
|---|---|---|---|---|---|
| 15 | B: 2(iii) | 6.3 Authentication Mechanisms | ii) Differentiate between authorized access and unauthorized access | U | 3 |
| 16 | B: 2(iv) | 5.1 Networks | v) Explain the following types of network architecture<br> • Client/server network<br> • Peer-to-peer network | U | 3 |
| 17 | B: 2(v) | 1.1 Introduction to Computer | ii) Describe brief history and generations of computer | K | 3 |
| 18 | B: 2(vi) | 2.1 Introduction | Differentiate between common types of O.S.<br> • Command Line Interface (CLI)<br> • Graphical User Interface (GUI) | U | 3 |
| 19 | B: 2(vii) | 2.2 Operating System | ii) Describe the following types of O.S.<br> • Real time processing | K+U | 1+2 |
| 20 | B: 2(viii) | 4.2 Transmission Medium | ii) Discuss the following guided media<br> • Twisted pair cable<br> • Coaxial cable<br> • Fiber optic cable | A | 3 |
| 21 | B: 2(ix) | 3.1 Word Processing | vi) Use of the Equation Editor<br> viii) Insert section breaks<br> ix) Insert header | A | 3 |
| 22 | B: 2(x) | 6.4 Computer Ethics | i) Know that computer ethics are the moral guidelines that govern the use of computers and information systems | K | 3 |
| 23 | B: 2(xi) | 5.2 Types of Networks | i) Explain the following types of networks on the basis of spatial distance<br> • Local Area Network (LAN)<br> • Wide Area Network (WAN) | U | 3 |
| 24 | B: 2(xii) | 1.1 Introduction to Computer | ) Describe the following hardware:<br> • Memory:<br> − ROM<br> − RAM | U | 3 |
| 25 | B: 2(xiii) | 1.3 Computer hardware | i) Describe the following hardware:<br> • Output Devices | U | 3 |
| 26 | C: 3 | 5.2 Types of Networks | iii) Explain with detailed diagrams the following network topologies<br> • Ring topology<br> • Star topology | K+U | 5+2 |
| 27 | C: 4 | 2.1 Introduction | ii) Get familiar with the functions of O.S.<br> • Memory management | K | 8 |

| | | | • I/O management<br>• Files management<br>• Resource management<br>• Users management | | |
|----|------|--------------------------------|--------------------------------------------------------------------------------------------------------------------|---|---|
| 28 | C: 5 | 4.4 Communication Terminologies | ii) Use appropriate formulae (e.g., formulae for data rate, baud rate etc.) to determine the characteristics of a communication channel | A | 8 |

**\*\*Cognitive Level**
K:Knowledge
U:Understanding
A:Application

# COMPUTER SCIENCE SSC-I(2ⁿᵈ Set)
## Table of Specifications

| Assessment Objectives | | Unit 1: Fundamentals of Computer (15%) | Unit 2: Fundamentals of Operating Systems (15%) | Unit 3*: Office Automation (25%) | Unit 4: Data Communication (20%) | Unit 5: Computer Networks (15%) | Unit 6: Computer Security and Ethics (10%) | Total Marks: 75 (55 T + 20 P) | | Percentage: 100% |
|---|---|---|---|---|---|---|---|---|---|---|
| **Knowledge based** | Section A | | | | | | 1(ii)(01) | 2 | | |
| | Section B | 2(v)(03) | 2(vii)(01) | | | | 2(x)(03) | 7 | 21 | 28% |
| | Section C | | 4(08) | | | 3(05) | | 13 | | |
| **Understanding based** | Section A | 1(i)(01) | 1(vi)(01) | 1(iv)(01) 1(vii)(01) | 1(iii)(01) 1(viii)(01) 1(xi)(01) | 1(v)(01) 1(ix)(01) | 1(x)(01) | 9 | | |
| | Section B | 2(i)(03) 2(xii)(03) 2(xiii)(03) | 2(vi)(03) 2(vii)(02) | | 2(ii)(03) | 2(iv)(03) 2(xi)(03) | 2(iii)(03) | 26 | 39 | 52% |
| | Section C | | | | | 3(03) | | 3 | | |
| **Application based** | Section A | | | 1(xii)(01) | | | | 1 | | |
| | Section B | | | 2(ix)(03) | 2(viii)(03) | | | 6 | 15 | 20% |
| | Section C | | | | 5(08) | | | 8 | | |
| **Total marks** | | 13 | 15 | 06 | 16 | 16 | 08 | 75 | | 100% |

**\*Unit 3: Is all practical so it's 17% covered in practical paper and 8% in theory paper.**
**KEY: 1(i)(01)**

        **Question Number (Part Number)( Allocated Marks)**

**Note:** (i) The policy of FBISE for knowledge based questions, understanding based questions and application based questions is 30% knowledge based, 50% understanding based and 20% application based.

      (ii) The total marks specified for each unit/content in the table of specification is only related to this model question paper.

      (iii) The difficulty level of the paper is: 40% easy, 40% moderate and 20% difficult.