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
⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨

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 SSC–I

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) How many pairs of computers can communicate simultaneously on LAN?

A. 1 ◯ B. 3 ◯

C. 2 ◯ D. Multiple ◯

(2) Which storage device has the fastest read/write access?

A. Compact Disk ◯ B. Floppy Disk ◯

C. Digital Video Disk ◯ D. Hard Disk ◯

(3) Which feature would an author use while writing a document to add an external link to a website in MS-Word?

A. Onlinelink ◯ B. Hyperlink ◯

C. Weblink ◯ D. Anchorlink ◯

(4) Television broadcasting is an example of following transmission mode:

A. Simplex ◯ B. Half-Duplex ◯

C. Full-Duplex ◯ D. Simple Duplex ◯

(5) Rate of change of electrical signals per second is called:

A. Data rate ◯ B. Baud rate ◯

C. Bandwidth ◯ D. Signal-to-Noise ratio ◯

(6) Which one of the following communication devices is used to connect two different types of networks?

A. Router ◯ B. Bridge ◯

C. Switch ◯ D. Gateway ◯

(7) In which one of the following topologies can a Node be easily added?

A. Ring topology ◯ B. Bus topology ◯
C. Star topology ◯ D. Tree topology ◯

(8) Which one of the following operating systems is used in an airline traffic control system?

A. Batch processing system ◯
B. Time sharing system ◯
C. Multitasking system ◯
D. Real time system ◯

(9) Cards used to connect additional devices to motherboard are attached via:

A. Expansion slot ◯ B. Connector ◯
C. Bays ◯ D. Links ◯

(10) 'Multimodal Authentication' means:

A. Use of username and password ◯
B. Use of two or more authentication methods ◯
C. Use of access cards ◯
D. Use of biometrics ◯

(11) Which one of the following topologies use more cable?

A. Bus topology ◯ B. Star topology ◯
C. Ring topology ◯ D. Mesh topology ◯

(12) 'D6' with reference to a spreadsheet means:

A. Column D, Row 6 ◯ B. Column D6 ◯
C. Row D6 ◯ D. Row D, Column 6 ◯

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 two benefits and one drawback of laser printer.

ii. Write down the characteristics of Third generation computers.

iii. With increasing Memory sizes, do you still think Memory Management is an important function of an Operating System? Justify your answer.

iv. Write down the purpose of Shareware and Freeware Software? Give an example of each.

v. Define any three transmission impairments in communication mediums.

vi. Write down any three difficulties a company may face in running a business without having a computer network.

vii. Identify the most suitable software to prepare Result Sheet of students. Give two reasons.

viii. List down any three authentication methods along with their applications in daily life.

ix. Differentiate between synchronous and asynchronous transmission by giving an example of each.

x. How is the job of System Analyst different from a Programmer?

xi. Write down three advantages of Software Piracy.

xii. Between Linux and Macintosh, which operating system would you prefer? Give two reasons to support your answer.

xiii. List three types of computer attacks and how can they be prevented.

SECTION – C (Marks 16)

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

Q.3 Describe four types of Unguided transmission media along with its applications in daily life. **(08)**

Q.4 Explain the following data communication lines in terms of transfer rate, cost, merits, and demerits: **(02 × 04 = 08)**
(i) Dialup (ii) DSL (iii) ADSL (iv) CDMA

Q.5 Describe the following types of Operating Systems: **(04 × 02 = 08)**
a) Batch Processing Operating System
b) Time Sharing Operating System

COMPUTER SCIENCE SSC-I

(Curriculum 2009)

Student Learning Outcomes

Sr No	Section: Q. No. (Part no.)	Contents and Scope	Student Learning Outcomes *	Cognitive Level **	Allocated Marks in Model Paper
1	A: 1(i)	5.2 Types of Networks	i) Explain the following types of networks on the basis of spatial distance • Local Area Network (LAN)	U	1
2	A:1(ii)	1.3 Computer Hardware	i) Describe the following hardware: • Storage devices	K	1
3	A: 1(iii)	3.1 Word Processing	xv) Use of Hyperlink	A	1
4	A: 1(iv)	5.1 Networks	iii) Define Data transmission modes	U	1
5	A: 1(v)	4.4 Communication Terminologies	i) Elaborate the following terms with corresponding formulas and standard units • Data rate • Baud rate • Bandwidth • Signal to Noise Ratio	K	1
6	A: 1(vi)	4.3 Communication Devices	Describe the uses of following communication devices • Dialup modem • Network Interface card • Router • Switch / Access Point	K	1
7	A: 1(vii)	5.2 Types of Networks	iii) Explain with detailed diagrams the following network topologies • Bus topology • Ring topology • Star topology • Mesh topology	U	1
8	A: 1(viii)	2.2 Operating System	ii) Describe the following types of O.S. • Batch processing • Time sharing processing • Real time processing	U	1
9	A: 1(ix)	1.3 Computer hardware	i) Describe the following hardware: • System unit – Motherboard	U	1
10	A: 1(x)	6.3 Authentication Mechanisms	iv) Explain the term multimodel authentication	K	1
11	A: 1(xi)	5.2 Types of Networks	iii) Explain with detailed diagrams the following network topologies • Bus topology • Ring topology • Star topology • Mesh topology	U	1

12	A: 1(xii)	3.2 Spreadsheet	i) Know the Basics of Spreadsheet • Addressing cells	U	1
13	B: 2(i)	1.3 Computer hardware	i) Describe the following hardware: • Output devices	U	3
14	B: 2(ii)	1.1 Introduction to Computer	ii) Describe brief history and generations of computer	K	3
15	B: 2(iii)	2.1 Introduction	ii) Get Familiar with the functions of OS • Memory Management	U	3
16	B: 2(iv)	1.5 Computer software	iii) Elaborate the following terms • Open source software • Shareware • Freeware	U	3
17	B: 2(v)	4.2 Transmission Medium	iv) Explain the following transmission impairments in communication mediums • Attenuation • Amplification	K	3
18	B: 2(vi)	5.1 Networks	ii) Describe the uses of networks	A	3
19	B: 2(vii)	3.2 Spreadsheet	i) Know the Basics of Spreadsheet • Naming cell and sheets • Filling column and rows • Addressing cells (Relative and absolute addresses) • Paste special ii) Work with functions and formulas	A	3
20	B: 2(viii)	6.3 Authentication Mechanisms	iii) Explain in detail the following authentication methodologies • Username and password • Personal Identification Number (PIN) • Access cards • Biometrics	K+A	3
21	B: 2(ix)	4.1 Basics of Communication	iv) Describe the following modes of data communication • Synchronous transmission • Asynchronous transmission 4	U	3
22	B: 2(x)	1.2 Role of compute	ii) Know the scope of the following careers in IT: • Software Engineer - Programmer - System Analyst	U	3
23	B: 2(xi)	6.4 Computer Ethics	ii) Discuss the following areas of computer ethics • Information accuracy • Information ownership/ Intellectual property rights • Software piracy • Information privacy	U	3
24	B: 2(xii)	2.1 Introduction	iii) Differentiate between common types of O.S. • Command Line Interface (CLI) - DOS - Unix • Menu Driven Interface (Novel , DOS)	U	3

			• Graphical User Interface (GUI) - Macintosh - Linux - Windows 2		
25	B: 2(xiii)	6.1 Computer Security 6.2 Computer Viruses	iii) Explain the Following attacks: • Virus • Worm • Adware • Spyware • Malware iii) Know that the following software can help safeguard against viruses, worms, adware and spyware: • Antivirus • Anti Spyware	K	3
26	C: 3	4.2 Transmission Medium	iii) Discuss the following unguided media • Radio waves • Microwave • Infra-red • Satellite	U+A	8
27	C: 4	5.3 Communicat ion over the Networks	i) Explain the following types of lines which use the telephone networks for data communications • Dial-up lines • Digital Subscriber Line (DSL) • Integrated Services Digital Network (ISDN) lines • CDMA	U	2 2 2 2
28	C: 5	2.2 Operating System	ii) Describe the following types of O.S. • Batch processing • Time sharing processing	K	4 4

*** Student Learning Outcomes**
National Curriculum for Computer Sciences Grades IX-XII, 2009
(Page no. 26-36)

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

COMPUTER SCIENCE SSC-I

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	Q1 (2) (01)			Q1 (5) (01) Q1 (6) (01)		Q1 (10) (01)	**4**	**22.5**	**30%**
	Section B	Q2 (ii) (03)			Q2 (v) (03)		Q2 (viii) (1.5) Q2 (xiii) (03)	**10.5**		
	Section C		Q5 (08)					**8**		
Understanding based	Section A	Q1 (9) (01)	Q1 (8) (01)	Q1 (12) (01)		Q1 (1) (01) Q1 (4) (01) Q1 (7) (01) Q1 (11) (01)		**7**	**39**	**52%**
	Section B	Q2 (i) (03) Q2 (iv) (02) Q2 (X) (03)	Q2 (iii) (03) Q2 (xii) (03)		Q2 (ix) (03)		Q2 (xi) (03)	**20**		
	Section C				Q3 (04)	Q4 (08)		**12**		
Application based	Section A			Q1 (3) (01)				**1**	**13.5**	**18%**
	Section B	Q2 (iv) (01)		Q2 (vii) (03)		Q2 (vi) (03)	Q2 (viii) (1.5)	**8.5**		
	Section C				Q3 (04)			**4**		
Total marks		**14**	**15**	**05**	**16**	**15**	**10**	**75**		**100%**

*Unit-3: is all practical so it's 20% covered in practical paper and 5% in theory paper

KEY: **1(1)(01)**
Question No (Part No.) (Allocated Marks)