

FEDERAL BOARD OF INTERMEDIATE AND SECONDARY EDUCATION
H-8/4, ISLAMABAD

NO.0-34/FBISE/RES/SYLL/ 267

09, January 2014

Subject: SYLLABUS AND MODEL QUESTION PAPER FOR THE SUBJECT OF COMPUTER SCIENCE (HIC)

Syllabus and Model Question Paper for the subject of Computer Science for Hearing Impaired Children effective from SSC Part-I Annual Examination 2013 and SSC Part-II Annual Examination 2014 and onwards are forwarded herewith for implementation.



(ZULFIQAR ALI RIZVI)

Director Research

Ph: 051-9250604

1. The Principal,
Special Children School Bahria College Islamabad, Shangrilla Road, Naval Complex, E-8, Islamabad
2. The Principal,
Special Education Centre for Hearing Impaired Children, (Special Education Complex), Phase-V, Opposite Sui Gas Office, Hayatabad, Peshawar
3. The Principal,
DEWA Institute of Special & Inclusive Education, House No.753, Neelum Road, G-9/3, Islamabad
4. The Principal,
National Special Education Center for Hearing Impaired Children, Plot # 27, H-9/4, Islamabad
5. The Principal,
Special Children School Bahria College, Karsaz, Habib Ibrahim Rahmatullh Road, Karachi
6. The Controller of Examinations (Conduct)
FBISE, Islamabad
7. ✓ Incharge website FBISE

CURRICULUM FOR COMPUTER SCIENCE – GRADE IX FOR HEARING IMPAIRED CHILDREN (HIC)

UNIT 1 FUNDAMENTALS OF COMPUTER

Contents and Scope	Learning Outcomes/Skills
	The special students will be able to
1.1 Introduction to Computer	i) Define computer ii) Describe brief history and generations of computer iii) Define the types of computers (Analog, Digital and Hybrid computers)
1.2 Role of Computer	Describe the uses of computer in: <ul style="list-style-type: none"> • Education • Business • Defence • Media • Manufacturing
1.3 Computer Hardware	i) Describe the following hardware: <ul style="list-style-type: none"> • Input devices • System unit <ul style="list-style-type: none"> – Motherboard – Processor (ALU and CU) • Storage devices • Output devices • Memory: <ul style="list-style-type: none"> – ROM – RAM
1.4 How a Computer Works	Describe the following four basic operations with the help of block diagram: <ul style="list-style-type: none"> • Input operation • Processing operation • Storage operation • Output operation

UNIT 2 FUNDAMENTALS OF OPERATING SYSTEM

Contents and Scope	Learning Outcomes/Skills
	The special students will be able to
2.1 Introduction	i) Define Operating System (OS) ii) Know the objectives of Operating System (OS) iii) Get familiar with the following functions of OS <ul style="list-style-type: none"> • Memory management • I/O management iv) Differentiate between the following common types of OS <ul style="list-style-type: none"> • Command Line Interface (CLI) <ul style="list-style-type: none"> ➤ DOS • Graphical User Interface (GUI) <ul style="list-style-type: none"> ➤ Windows v) Classify Operating System <ul style="list-style-type: none"> • Single user OS • Multi user OS
2.2 Getting started with GUI OS	i) Identify the basic icons of GUI OS ii) Manage data (Files and Folders)

UNIT 3 OFFICE AUTOMATION – I

Contents and Scope	Learning Outcomes/Skills
	The special students will be able to
3.1 Word Processing	i) Recognize and define word processor ii) Manage a document (Create, open, Save, Save As, Print) iii) Edit text of the document using the following options (Select, Insert, Copy, Cut, Paste, Move, Delete text) iv) Minimize and Show the Ribbon v) Format text vi) Insert header, footer and page numbers vii) Insert and position pictures within a document viii) Insert Word Art ix) Create a table.

UNIT 4 COMPUTER SECURITY AND ETHICS

Contents and Scope	Learning Outcomes/Skills
	The special students will be able to
4.1 Computer Security	i) Define Computer Security ii) Explain the importance of computer security iii) Define the following terms <ul style="list-style-type: none"> • Cyber Crime • Hacking iv) Define threat to computer v) Explain the following common threats to computers <ul style="list-style-type: none"> • Virus • Worm
4.2 Threats to Computer	i) Define threat to computer ii) Explain the following common threats to computers <ul style="list-style-type: none"> • Virus • Worm iii) Know that a virus and worm can spread via: <ul style="list-style-type: none"> • Infected Storage device like Hard disk, Flash drive or CD/DVD • Pirated software • Network and Internet • E-mail attachments
4.3 Computer Ethics	i) Define Computer Ethics ii) Know computer ethics are the moral guidelines that govern the use of computers and information systems

CURRICULUM FOR COMPUTER SCIENCE – GRADE X FOR HEARING IMPAIRED CHILDREN (HIC)

UNIT 1 DATA COMMUNICATION AND NETWORKS

Contents and Scope	Learning Outcomes/Skills
	The special students will be able to
1.1 Data Communication	i) Define Data and Data Communication ii) Define Communication Signals <ul style="list-style-type: none"> • Analog signals • Digital signals iii) Explain the following components of a communication system <ul style="list-style-type: none"> • Sender • Receiver • Medium
1.2 Communication Medium	i) Differentiate between guided and unguided media ii) Define the following guided media <ul style="list-style-type: none"> • Twisted pair cable • Coaxial cable • Fiber optic cable iii) Define the following unguided media <ul style="list-style-type: none"> • Microwave • Satellite
1.3 Computer Network	i) Define Computer Network ii) State the advantages/uses of Computer Network iii) Explain the following types of networks <ul style="list-style-type: none"> • Client/server network • Peer-to-peer network iv) Explain the following types of networks on the basis of spatial distance. <ul style="list-style-type: none"> • Local Area Network (LAN)

	<ul style="list-style-type: none"> • Wide Area Network (WAN) • Metropolitan Area Network (MAN) <p>v) Define Network Topology</p> <p>vi) Define with diagrams the following network topologies</p> <ul style="list-style-type: none"> • Bus topology • Ring topology • Star topology
--	--

UNIT 2 OFFICE AUTOMATION – II

Contents and Scope	Learning Outcomes/Skills
	The special students will be able to
2.1 Spreadsheet	<p>i) Define Spreadsheet</p> <p>ii) Differentiate between Worksheet and Workbook</p> <p>iii) Define the following terms</p> <ul style="list-style-type: none"> • Rows • Columns • Cell • Cell Name/Reference • Cell Range <p>iv) Fill cells with data in sheets</p> <p>v) Insert formulas (Addition, Subtraction, Multiplication, Division) in sheets</p> <p>vi) Use the following functions in sheets SUM, PRODUCT, SQRT, AVERAGE</p>

UNIT 3 COMPUTER LOGIC GATES

Contents and Scope	Learning Outcomes/Skills
	The special students will be able to
3.1 Data Representation in computer	<p>i) Understand that data is represented using binary pulses (0 and 1) inside the computer</p>

3.2 Logic Gates	i) Define Logic gate ii) Define the following three basic logic gates: <ul style="list-style-type: none"> • AND • OR • NOT iii) Explain the following logic gates with the help of truth tables for two variable: <ul style="list-style-type: none"> • AND • OR • NOT
-----------------	--

UNIT 4 INTERNET AND WORLD WIDE WEB

Contents and Scope	Learning Outcomes/Skills
	The special students will be able to
4.1 Introduction to the Internet	i) Define Internet ii) Know brief history of the Internet iii) Know the following services of the Internet <ul style="list-style-type: none"> • World Wide Web (www) • E-mail • File Transfer Protocol (FTP) • Chatting iv) Define the following basic terminologies <ul style="list-style-type: none"> • Website • Home Page • Hyperlink • http • HTML • Domain • URL • ISP v) Know advantages and disadvantages of Internet

4.2 Web Browser	<ul style="list-style-type: none"> i) Define Web Browser ii) Know the functions of a Web browser iii) Know the common types of Web browsers
4.3 Internet Explorer	<ul style="list-style-type: none"> i) Know the main window of Internet Explorer (IE) ii) Know the components of IE
4.4 E-mail	<ul style="list-style-type: none"> i) Define E-mail ii) Know advantages and disadvantages of E-mail iii) Create E-mail account iv) Know different parts of E-mail page v) Read an E-mail vi) Compose an E-mail vii) Send an E-mail viii) Send an attachment with E-mail
4.5 Search Engine	<ul style="list-style-type: none"> i) Define Search Engine ii) Know common types of search engines iii) Know how to search information using search engine



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

FBISE

WE WORK FOR EXCELLENCE

Roll No:

Answer Sheet No:

Signature of Candidate:

Signature of Invigilator:

SECTION – A

Time allowed: 30 minutes

Marks: 15

Note: Section-A is compulsory and comprises pages 1-3. All parts of this section are to be answered on the question paper itself. It should be completed in the first 30 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q.1 Insert the correct option i.e. A/B/C/D in the empty box given opposite each part. Each part carries one mark.

i. Which of the following technologies is used in fifth generation computers?

- A. Vacuum Tubes B. Transistors
C. Integrated Circuits D. Artificial Intelligence

ii. Which of the following is an input device?

- A. Monitor B. Mouse
C. System Unit D. Printer

iii. Which of the following controls the computer hardware?

- A. Hard Disk B. CPU
C. Keyboard D. Motherboard






iv. Which of the following is a semiconductor memory?

- A. RAM B. Flash Memory
C. Cache D. CD-ROM

v. Which of the following is a user friendly Operating System?

- A. DOS B. Windows
C. CLI D. Unix Shell

DO NOT WRITE ANYTHING HERE

-
- v. Which of the following is represented by  ?
- A. My Computer B. My Documents
C. Internet Explorer D. Recycle bin
- vii. Which of the following icon represents a file?
- A.  B. 
C.  D. 
- viii. Which runs on computer hardware and server as platform for other software to run on?
- A. Operating System B. Application Software
C. Ms Word D. Graphics Software
- ix. Which of the following is used to Single Underline text?
- A. Ctr + Z B. Ctr + X
C. Ctr + U D. Ctr + V
- x. Which of the following group of commands is used to Move and Copy text?
- A. Paragraph B. Font
C. Editing D. Clipboard
- xi. Which of the following command is used to store a file on computer memory?
- A. Save B. Store
C. Add D. Print

- xii. Which of the following is a way of unauthorized use of computer?
- | | |
|----------------|------------|
| A. Programming | B. Hacking |
| C. Stealing | D. Robbing |
- xiii. Which of the following is an Antivirus Program?
- | | |
|------------|------------|
| A. DOS | B. Windows |
| C. Ms Word | D. AVG |
- xiv. Which of the following is a network of interconnected computers?
- | | |
|-------------|-----------|
| A. Internet | B. Email |
| C. www | D. Server |
- xv. Which of the following replicates itself to disturb computer working?
- | | |
|-----------|-----------|
| A. Virus | B. Worm |
| C. Adware | D. Hacker |

For Examiner's use only

Q No.1: Total Marks:

Marks Obtained:



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

Time allowed: 1.00 hour

Total Marks: 20

Note: Section 'B' comprises page 1 and questions therein are to be answered on the separately provided answer book. Attempt any five parts from section 'B'. Use supplementary answer sheet i.e. sheet B if required. Write your answers neatly and legibly.

SECTION-B
(Marks:20)

- Q.2** Attempt any FIVE parts. The answer of each question should not exceed 3 to 4 lines.
- i. Define computer. How many types of computer are there? Name them. (4)
 - ii. Name four basic operations of computer. Illustrate with block diagram. (4)
 - iii. Describe any two functions of Operating System. (4)
 - iv. How single user Operating System is different from Multiuser Operating System? (4)
 - v. What do you understand by word processing? (4)
 - vi. What is difference between header and footer? (4)
 - vii. Describe any two types of computer threats. (4)
 - viii. Write four guidelines that govern the use of computer. (4)



Federal Board SSC-I Examination
Computer Science (HIC) Practical
Model Question Paper

Time allowed: 2 hours

Total Marks: 40

Note: Attempt any THREE questions.

- Q.1**
- i. Create a new folder on desktop with the name "SSC-I". (2)
 - ii. Rename the folder "SSC-I" to "EXAM". (2)
 - iii. Copy the folder "EXAM" from desktop to My Documents. (2)
 - iv. Delete the folder "EXAM" from desktop. (2)
 - v. Restore the deleted folder "EXAM". (2)
- Q.2** Type a leave application and apply the following formatting to it: (4)
- i. Bold and underline the subject of the application. (2)
 - ii. Left align the name of your school. (2)
 - iii. Right align your name at the end of application. (2)
- Q.3** Create a timetable of your class in Word. (10)
- Q.4** Design an invitation card of your birthday. (10)
- Viva Voce (5)
- Note Book (5)
-



Federal Board SSC-II Examination
Computer Science (HIC) Model
Question Paper

FBISE

WE WORK FOR EXCELLENCE

Roll No:

Answer Sheet No:

Signature of Candidate:

Signature of Invigilator:

SECTION – A

Time allowed: 30 minutes

Marks: 15

Note: Section-A is compulsory and comprises pages 1-3. All parts of this section are to be answered on the question paper itself. It should be completed in the first 30 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q.1 Insert the correct option i.e. A/B/C/D in the empty box given opposite each part. Each part carries one mark.

- i. Which of the following is an unguided media?
- A. Coaxial Cable B. Fiber Optic Cable
C. Satellite D. Twisted Pair Cable
- ii. Which of the following provides services to other computers on the network?
- A. Client B. Server
C. Network D. Workstation
- iii. Which of the following networks spreads over a city?
- A. Local area network B. Wide area network
C. Metropolitan network D. Peer-to-peer network
- iv. Which of the following topologies requires central controller or hub?
- A. Mesh B. Star
C. Bus D. Ring
- v. Which of the following symbols is used to start a formula?
- A. % B. =
C. + D. *

DO NOT WRITE ANYTHING HERE

-
- vi. Which of the following will be the answer of SUM (10, 4, 6)?
- | | | | |
|----|----|----|------|
| A. | 8 | B. | 12 |
| C. | 20 | D. | Zero |
- vii. How many worksheets are there in a workbook in spreadsheet by default?
- | | | | |
|----|---|----|---|
| A. | 1 | B. | 2 |
| C. | 3 | D. | 4 |
- viii. Which of the following functions is used to find the square root of a number?
- | | | | |
|----|--------|----|------|
| A. | SQUARE | B. | SQRT |
| C. | ROOT | D. | SR |
- ix. Which of the following represents binary digits?
- | | | | |
|----|------|----|------|
| A. | 0, 1 | B. | 1, 2 |
| C. | 2, 1 | D. | 2, 3 |
- x. Which of the following represents logical addition?
- | | | | |
|----|-----|----|-----|
| A. | AND | B. | OR |
| C. | NOT | D. | ADD |
- xi. Which of the following will be the output of X AND Y operation if X = 1 and Y = 1?
- | | | | |
|----|----|----|---|
| A. | 0 | B. | 1 |
| C. | 11 | D. | 2 |
- xii. Which of the following is a service?
- | | | | |
|----|--------|----|------|
| A. | FTP | B. | HTTP |
| C. | TCP/IP | D. | www |

xiii. Which of the following represents the address of a webpage?

- A. URL
C. Website
- B. ISP
D. http

xiv. Which of the following is used to exchange messages by using internet?

- A. Webpage
C. Email
- B. Website
D. Web browser

xv. Which of the following is used for a file transfer over a network?

- A. TCP
C. IP
- B. FTP
D. HTTP

For Examiner's use only

Q No.1: Total Marks:

Marks Obtained:



Federal Board SSC-II Examination
Computer Science (HIC) Model
Question Paper

Time allowed: 1.00 hour

Total Marks: 20

Note: Section 'B' comprises page 1 and questions therein are to be answered on the separately provided answer book. Attempt any five parts from section 'B'. Use supplementary answer sheet i.e. sheet B if required. Write your answers neatly and legibly.

SECTION-B
(Marks:20)

- Q.2** Attempt any FIVE parts. The answer of each question should not exceed 3 to 4 lines.
- i. What is data communication? How many components of data communications are there, define them.
 - ii. Write a short note on any two of the guided media.
 - iii. Differentiate between Functions and Formulae in Spreadsheet. Give an example of each.
 - iv. Define network topology. Describe main characteristics of star topology.
 - v. How data is represented in computer? Define AND gate with the help of truth table.
 - vi. Differentiate between File Transfer Protocol (FTP) and Hyper Text Transfer Protocol (HTTP).
 - vii. Write a note on web browser. Give the names of some commonly used web browsers.
 - viii. What is search engine? Describe the common types of search engine.



Federal Board SSC-II Examination
Computer Science (HIC) Practical
Model Question Paper

Time allowed: 2 hours

Total Marks: 40

Note: Attempt any THREE questions.

Q.1 i. Create the following worksheet:

(4)

	A	B	C	D	E	F	G
1	Length	Width	Area				
2	12	10					
3	14	23					
4	16	15					
5	17	16					
6	15	21					
7							

ii. Enter the formula to calculate the area of rectangle in cell C2 and copy the formula from cell C3 to C6 by using the fill handle downwards.
Area of Rectangle = Length * width

(3+3)

Q.2 Create the following worksheet to show the result of your class:

(10)

	A	B	C	D	E	F	G	H
1	Name	English	Urdu	Maths	Total	Percentage		
2	Ali	80	82	75				
3	Zoya	70	63	76				
4	Ahmad	58	74	82				
5	Eman	95	52	94				
6	Abdullah	62	57	75				
7								
8								

Q.3 Compose an Email. Attach an image file in it and send it to your friend's mail address.

(10)

Q.4 Create an Email account using any Email service.

(10)

Viva Voce

(5)

Note Book

(5)