

AGA KHAN UNIVERSITY EXAMINATION BOARD

SECONDARY SCHOOL CERTIFICATE

CLASS IX EXAMINATION

APRIL/ MAY 2019

Computer Science Paper II

Time: 2 hours 20 minutes Marks: 40

INSTRUCTIONS

Please read the following instructions carefully.

1. Check your name and school information. Sign if it is accurate.

**I agree that this is my name and school.
Candidate's Signature**

RUBRIC

2. There are SEVEN questions. Answer ALL questions. Questions 6 and 7 each offer TWO choices. Attempt any ONE choice from each.
3. When answering the questions:

Read each question carefully.
Use a black pointer to write your answers. DO NOT write your answers in pencil.
Use a black pencil for diagrams. DO NOT use coloured pencils.
DO NOT use staples, paper clips, glue, correcting fluid or ink erasers.
Complete your answer in the allocated space only. DO NOT write outside the answer box.
4. The marks for the questions are shown in brackets ().

Q.1. (Total 5 Marks)

a. The given table shows the characteristics of TWO translators, i.e. compiler and interpreter.

Categorise each of these characteristics as that of a compiler or an interpreter. (2 Marks)

Characteristic of Translator	Compiler/ Interpreter
It produces an executable file of machine code.	
It is used at testing/ development stage of a program.	
It converts source code into machine code line by line.	
It produces file that does not need any type of translator to run it.	

b. Define the following THREE types of programming languages. (3 Marks)

Machine Language	Assembly Language	High-Level Language

Q.2.

(Total 5 Marks)

- a. There is a set of video files in which the size of each file is 64 megabytes (MBs). How many of these video files can be stored in a flash drive with the storage capacity of 1 gigabyte (GB)? Show your working. (2 Marks)

- b. Identify and describe the purpose of TWO input and any ONE output components that are present in the mobile phone shown in the given picture. (3 Marks)



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Q.3. (Total 4 Marks)

A computer controlled car is programmed in such a way that it moves in different directions on receiving specific binary codes (numbers).

The binary codes with corresponding directions are given below.

Binary Code	Direction
1010	Forward
0101	Backward
1101	Left
1011	Right

In order to move the car, the operator uses the given hexadecimal digits.

5 B A D

Determine the direction in which the car will move for each hexadecimal digit.

(Note: Show your working.)

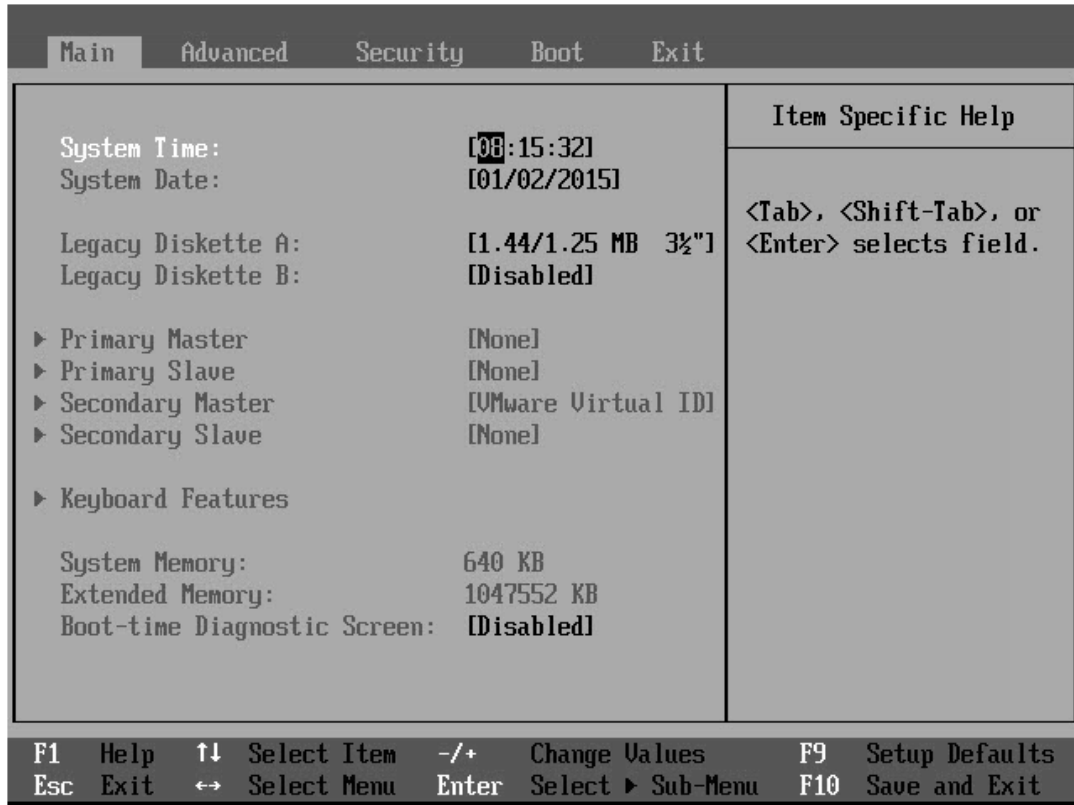
Space for Working

Hexadecimal Digit	Direction
5	
B	
A	
D	

Q.4.

(Total 6 Marks)

a. During installation of Windows operating system, Sheeraz opened the following screen.



i. Name the screen shown in the given image. (1 Mark)

ii. Give the reason for which he must open the screen shown in part (i). (1 Mark)

b. List the names of any FOUR options that are available in the Insert menu of MS Word. (2 Marks)

- c. Shumaila is preparing an MS PowerPoint presentation and she has inserted animation on the text of one of the slides.

She wants the animation to appear 2 seconds after the click of the mouse and to stay on screen for 3 seconds. Complete the given picture with the THREE timing options of animation that would fulfil this requirement. (2 Marks)

▶ Start:	<input type="text"/>	▼
🕒 Duration:	<input type="text"/>	▲ ▼
🕒 Delay:	<input type="text"/>	▲ ▼
Timing		

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Q.5. (Total 5 Marks)

a. Describe the purpose of each of the following:

i. Utility Software (1 Mark)

ii. User Interface (1 Mark)

b. In disk operating system (DOS), users have to perform each task by using commands.

Write appropriate DOS commands to perform the given tasks.

i. Change present working directory from **C:\DOS** to **C:\GAMES\PACEM** (1 Mark)

ii. Display the DOS version number on the screen of the monitor. (1 Mark)

iii. Delete a file named **CAT.TMP** from the **TEST** directory on drive **C**. (1 Mark)

Q.6. (Total 7 Marks)

EITHER

a.
i. Following are the codes to perform the addition of numbers.

- I. ADD 105, 100
- II. 105 + 100
- III. 0001 0001 0000 0101

Identify whether each of the given code lines is a machine code, an assembly language code or a high level language code. (2 Marks)

- I. _____
- II. _____
- III. _____

ii. Which of the codes, I, II and III, given in part (i) does not require any kind of translator? (1 Mark)

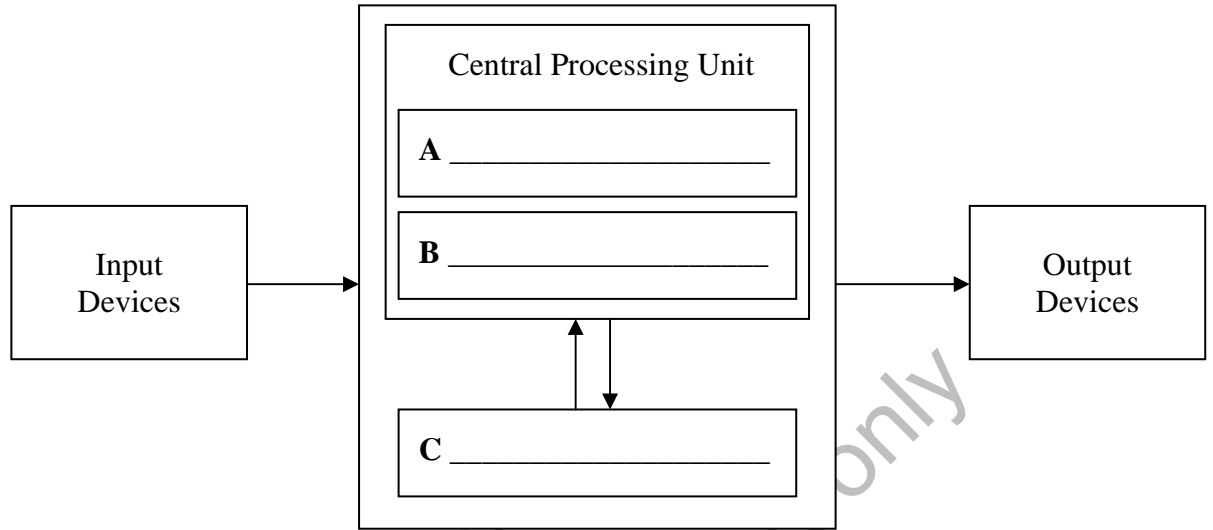
iii. Differentiate between the first generation computers and fourth generation computers on the basis of the given factors. (4 Marks)

Factor	First Generation Computers	Fourth Generation Computers
Programming Language Used		
Cost		
Technology Used		
Speed		

OR

b.

- i. Complete the given diagram of the computer architecture by writing the names of components in boxes **A**, **B** and **C**. (3 Marks)



- ii. Describe the function of each component named in part (i). (3 Marks)

- iii. Write any ONE difference between data bus and address bus. (1 Mark)

Data Bus	Address Bus

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OR

b.

- i. In the given table, name the DOS command which fulfils each purpose. Identify each command as external or internal. (4 Marks)

Purpose of Command	DOS Command	Type of Command
This command copies the contents of one floppy from the source drive to a formatted or unformatted floppy disk in the destination drive.		
This command is used to check a disk and display a status report with properties of disk like serial number, volume label, memory and other properties along with errors on the disk if any.		
This command is used to remove a directory along with its contents.		

- ii. In the given table, write the purpose of each given DOS command. Identify each command as external or internal. (4 Marks)

DOS Command	Purpose of Command	Type of Command
MD		
VER		
CLS		

END OF PAPER

Please use this page for rough work

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