

AGA KHAN UNIVERSITY EXAMINATION BOARD

SECONDARY SCHOOL CERTIFICATE

CLASS IX EXAMINATION

APRIL/ MAY 2017

Computer Science Paper II

Time: 2 hours 25 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**

2. RUBRIC. 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)

Consider the types of computers and programming language translators given in the box below.

- Analog Computer
- Digital Computer
- Hybrid Computer
- Assembler
- Compiler
- Interpreter

Complete each statement using an appropriate term from the box. Each term should be used only ONCE.

- i. _____ performs arithmetic and logic operations with discrete values.
- ii. _____ translates the source code into the object code (machine code).
- iii. _____ uses flow of electricity or mechanical motion to model problems and generate answers quickly.
- iv. _____ checks each line of a program for possible errors and then executes that line.
- v. _____ is the combination of analog and digital computers.

Q.2. (Total 5 Marks)

a. Describe an appropriate purpose of each of the following input devices. (3 Marks)

- Voice Synthesiser
- Mouse
- Keyboard

- b. There are some video files and the size of each file is 64 megabyte (MB). How many of these video files can be stored in 1 gigabyte (GB) storage capacity of a flash drive? Show your working. (2 Marks)

Q.3. (Total 4 Marks)

- a. Convert the given byte into equivalent hexadecimal number. Show your working.

$(10111100)_2$ (2 Marks)

- b. Show that addition of two binary numbers, 10010011 and 01101100, gives a result which is equal to 255 in decimal number system. (2 Marks)

Q.4. (Total 6 Marks)

- a. Recycle Bin and Internet Explorer are two icons on the Windows desktop.

Describe ONE major purpose of each of them. (2 Marks)

- b. Nimra has prepared lecture notes using MS Word and she wants to exit from the MS Word file.

Write any TWO appropriate ways that can help Nimra to exit out from the MS Word file. (2 Marks)

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c.

- i. Omar wants to open an MS PowerPoint file. Write the keyboard shortcut that he can use to open the MS PowerPoint file. (1 Mark)

ii.

Student ID	Student Name	Class	Fee Paid
H110	Adeel Ahmed	XI	Yes
H111	Saima Jamil	XI	Yes
H112	Faheem Arshad	XI	No
H113	Sidra Zafar	XII	No

To insert the above given table in MS PowerPoint, write the minimum number of rows and columns in the below given image. (1 Mark)

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 solve the given problems.

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

ii. Display the MS 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)

EITHER

- i. Describe the purpose of central processing unit (CPU), control unit (CU), memory unit (MU) and arithmetic logic unit (ALU) in a computer system? (4 Marks)
- ii. Write any THREE advantages of using universal serial bus (USB) port over parallel port? (3 Marks)

OR

- i. There are FIVE generations of computers till date. Name the major technologies used in third, fourth and fifth generation of computers? (3 Marks)
- ii. Write any THREE advantages of using transistors instead of vacuum tubes in second generation of computers as major technology. (3 Marks)
- iii. State the John von Neumann theory which became the basis of modern computer systems? (1 Mark)

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EITHER

- OR**

- b.
- i. ‘Disc operating system (DOS) is almost replaced by the Windows.’
Justify this replacement by providing any FIVE valid reasons. (5 Marks)
- ii. System software and application software are TWO major types of software in computer system.
Describe each type of software and give an example of system software. (3 Marks)

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