AGA KHAN UNIVERSITY EXAMINATION BOARD
SECONDARY SCHOOL CERTIFICATE
CLASS IX EXAMINATION
APRIL/ MAY 2018

Computer Science Paper II

Time: 2 hours 25 minutes Marks: 40

Constructed Response Questions (CRQs)

Question 1:

Names of some computing devices that were invented during the evolution of computer are given below.

- ENIAC
- UNIVAC
- Mark-1
- Abacus
- Difference engine
- Punch card tabulator
- Analytical engine
- Pascal's Pascaline calculator

Choose appropriate name from the list inside the box and write it with corresponding statement about a computing device.

(**Note:** Only one name can be used for one statement.)

i. _____ was steam powered, fully automatic and could print the results as well.

ii. _____ works on decimal arithmetic rather than binary arithmetic.

iii. _____ was a general purpose, fully program-controlled and automatic mechanical digital computer.

iv. _____ had a system of gears. One-tooth gear of this machine engages tooth with a ten-tooth gear once every time it revolves.

v. _____ processes data in numerical form using digital circuits.

Question 2a:

How many image files, of size 512 kilobytes each, can be stored on 1500 megabytes of a DVD? Show your working.

Question 2b:

THREE types of events are performed by a mouse. Describe the purpose of these events.

Left Click	Right Click	Drag

Question 3a:

Convert the given octal number into decimal number. Show your working.

$(65.4)_8$

Question 3b:

Show that binary addition of two numbers, $(01000111)_2$ and $(01110100)_2$, gives a result which is equal to 187 in decimal number system.

Question 4a:

Asher wants to launch the start menu on his computer system which has Windows operating system installed but the mouse connected to his computer system is not working.

Mention any TWO ways in which Asher could launch the start menu without using the mouse.

Question 4b:

Given is a list of change case options available in MS Word.

Change Case Options

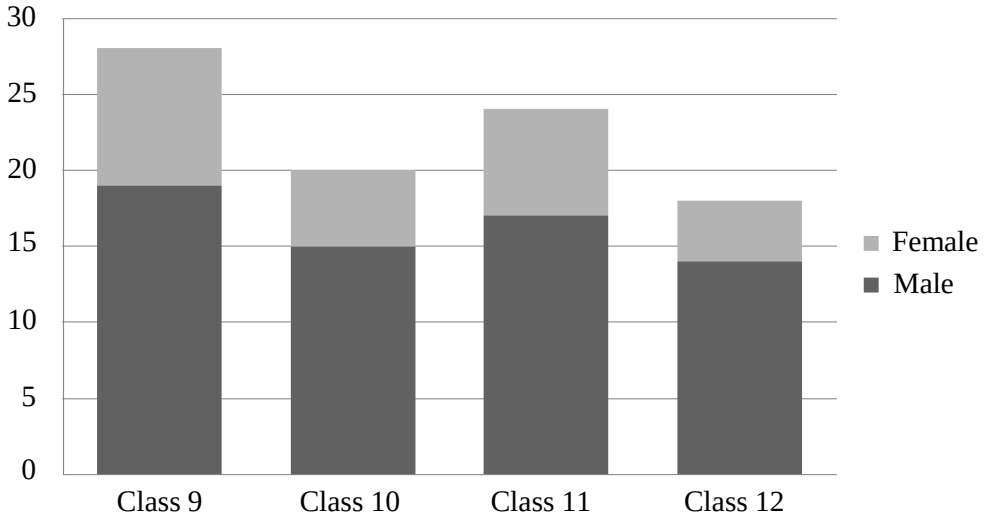
- Sentence case
- Lowercase
- Uppercase
- Capitalize each word
- Toggle case

The given table shows words before and after the change case option is applied on them. Select appropriate change case option for each word from the given list and write it in the third column of the table.

Before Applying Change Case	After Applying Change Case	Change Case Option Used
CompuTer	cOMPUtER	
FLOPPY	Floppy	

Question 4c:

To insert any chart in MS PowerPoint, we enter data in the MS Excel file that should be depicted in the chart.



Complete the given MS Excel table by filling the shaded cells with reference to the given chart.

	19	9
	15	5
	17	7
	14	4

Question 5a:

Define the following types of user interface:

i. Command Line Interface (CLI)
ii. Graphical User Interface (GUI)

Question 5b:

Define 'internal' and 'external' commands in DOS and give an example of any ONE of these.

Extended Response Questions (ERQs)

The following questions offered a choice between part **a** and **b**.

Question 6a:

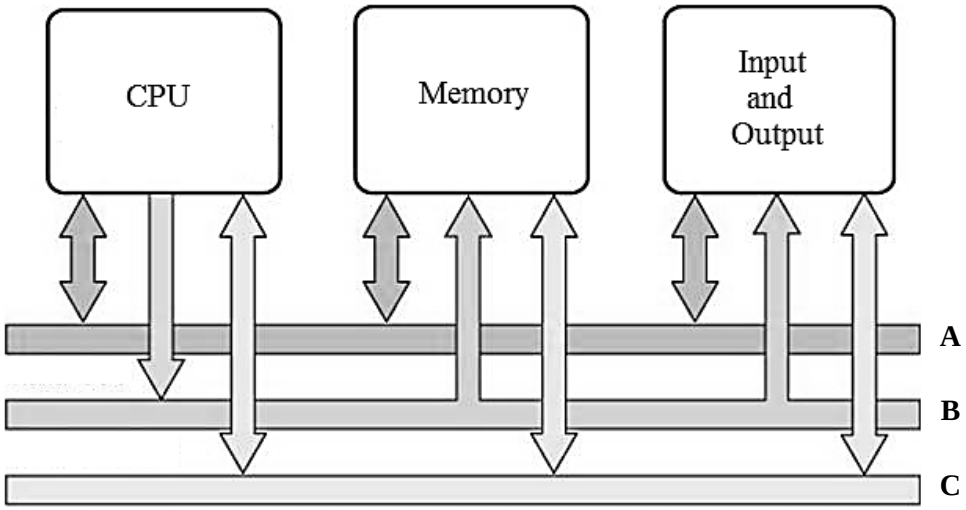
i. Differentiate among supercomputers, minicomputers and microcomputers on the basis of their size, computation speed, cost and use.

	Supercomputers	**Minicomputers**	**Microcomputers**
Size			
Speed			
Cost			
Use			

ii. Write any THREE advantages of using integrated circuits (ICs) over transistors in third generation of computers.

Question 6b:

i. The given image shows the system bus in a typical computer.



Identify address bus, control bus and data bus on the basis of connections shown among CPU, Memory and Input and Output units of a computer system.

A _____

B _____

C _____

ii. Describe the following types of translators.

Compiler	Interpreter	Assembler

iii. Describe the role of RAM and ROM in computer.

Question 7a:

i. Identify any TWO application software that can help a teacher to improve his/ her routine tasks such as preparation of lecture, report cards, attendance registers and time table.

ii. Describe THREE uses of each software identified in part (i).

Question 7b:

Utility software is a type of system software used to support the computer infrastructure, distinguishing it from application software which is aimed at directly performing tasks that benefit ordinary users.

Explain the functionality of any FOUR utility software using appropriate examples.