United Arab Emirates
Ministry of Education

الإمـارات العـربيـة المتحدة
وزارة التربيـــة والتعليـــم

STUDENT SECTION					
Name				Class	
Student MOE number (SIS)		School MOE Number		STUDENT SIGNATURE	
School name					

Computer Science

Grade 12

Sample - Term 1

Date: November 2017

Time: TBC

Duration: 35 minutes

STUDENT INSTRUCTIONS –
Students must attempt **all** questions
For this examination, you must have:

1. An ink pen – blue.
2. A pencil.
3. A ruler.

Strictly no calculators are allowed.

TEACHER NOTES & INSTRUCTIONS

Please tick ✓ the correct answers in **RED INK** and then write the mark awarded in the marking columns. With multiple mark answers highlight where the mark is awarded by **underlining** or by using an extra tick.

FOR ADMIN ONLY	
MARKING RECORD	
Section	Section TOTALS
Section 1	
Section 2	
Section 3	
Section 4	
Section 5	
MARKER SIGNATURE	TOTAL MARKS
MODERATOR SIGNATURE	

SECTION 1 – Multiple choice

Choose and circle the correct answer – A, B, C or D. (2 marks each)

Example: *The basic number system in all computers is the_____*

A. binary
B. denary
C. hexadecimal
D. octal

1. The _____ address uniquely identifies the devices on the internet.

   A. IP
   B. MAC
   C. gateway
   D. subnet mask

2. What is the base for the denary number system?

   A. 10
   B. 16
   C. 2
   D. 8

3. The computer's memory sizes are always multiples of _____

   A. 5
   B. 2
   C. 8
   D. 3

4. A(n) _____ device translates human interaction into binary code for a CPU.

   A. storage
   B. memory
   C. output
   D. input

5. Which memory remembers without power supply?

   A. RAM
   B. SDRAM
   C. Cache
   D. ROM

/ 10

SECTION 2 – True or False

Choose and circle the correct answer TRUE or FALSE. **(1 mark each)**

Example:

- *Throughput is the measure of bits transfer across the media* TRUE FALSE

1. Binary numbers are **read** from left to right. TRUE FALSE
2. Hexadecimal numbers have **six** extra symbols TRUE FALSE
3. The **MAC** address is represented using decimal digits. TRUE FALSE
4. A computer stores and processes data as **binary**. TRUE FALSE
5. Each character is represented by eight bits with **ASCII**. TRUE FALSE
6. The **LANs** contains devices like printers, PCs and servers. TRUE FALSE
7. A **router** cannot connect multiple networks. TRUE FALSE
8. The **packets** are delivered across networks using switches. TRUE FALSE
9. The **flash** memory is a non-volatile memory. TRUE FALSE
10. To talk using IP telephones network is **not** required. TRUE FALSE

/ 10

SECTION 3 – Matching

Match the terms with its explanations. Write the matching letter in the correct box. The first one has been done for you (2 marks each)

Terms		Explanations	
• ***Example*** Bit	F	Represents the smallest bit of data	F
1. ROM		A company that provides internet services like DU or Etisalat.	A
2. OS instruction		Addresses referred in dotted-decimal notations.	B
3. ISP		A non-volatile memory for permanent storage.	C
4. IP		A group of binary bits.	D
5. Register		Consists of system initialization, routing functions and switching functions.	E

/ 10

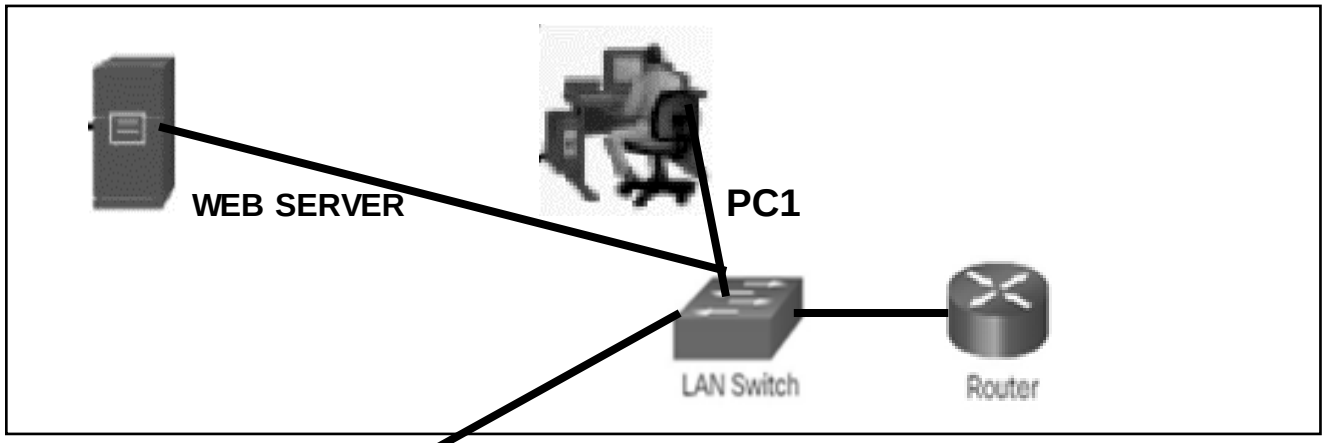
SECTION 4 – Drawing

A trading office manager located in Dubai wants to connect with his other mangers located in Ras Al Khaimah and in Al Ain. Using networks, you are supposed to: -

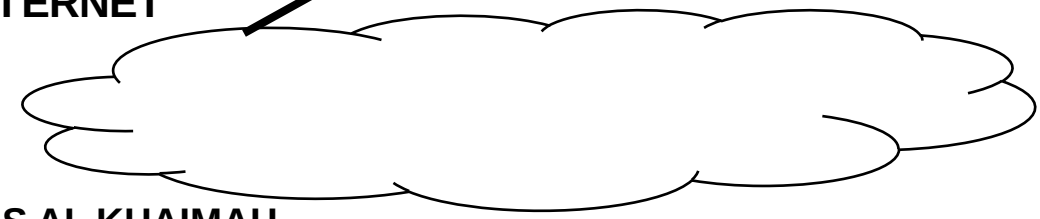
4a. Connect using **network devices** and **network media** all the office. **(6 marks)**

4b. Write down the **IP addresses** and **Gateway** for PC2 and PC3 **(4 marks)**

DUBAI



4a. INTERNET



4b. RAS AL KHAIMAH **AL AIN**

 **PC2** **IP**_____ **Gateway**_____	 **PC3** **IP**_____ **Gateway**_____

/ 10

SECTION 5 – Short Answer Questions

1a. What are the two classifications of computer memory?

_____

_____ **(2 marks)**

1b. Explain any three jobs of a ROM memory in a router

- Job 1_____
- Job 2_____
- Job 3 _____ (**3 marks)**

2a. What is the number in bits for 1GB?

_____ **(1 mark)**

2b. Do the following number conversions (using any method).

- Binary to denary

  01110111_____

  10101010_____

- Hexadecimal to binary

  23A_____

  4B5_____**(4 marks)**

/ 10

End of Examination

TOTAL

/ 50