STUDENT SECTION

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

Computer Science

Grade 11

Sample -Term 2

Date: February 2018

Time: TBC

Duration: 45 minutes

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

STUDENT INSTRUCTIONS –
Students must attempt **all** questions
For this examination, you must have:
1. An ink pen – blue.
2. A pencil.
3. A ruler.

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.

SECTION 1 – Answer the questions for the below program.

1	`from random import *`
2	`def power_function (num1,num2):`
3	`    x = pow (num1,num2)`
4	`    return x`
5	`print ("program to return 2 to the power 6")`
6	`num1 = 2`
7	`num2 = 6`
8	`result = power_function (num1,num2)`
9	`print ("2 is powered by 6 (2**6) which equals :", result)`

1. Write the **line numbers** which are used for the function calls and the return statements?

   Function Call **(any one)**_____

   Function Return_____   **(2 marks)**

2. There can be **any** number of **user-defined functions** in a program. Choose and circle the correct answer.

   A. True   b. False   **(2 marks)**

3. The keyword used for defining a function is **def**. Choose and circle the correct answer.

   A. True   b. False   **(2 marks)**

4. The _____ is the **built-in function** used in the code.   **(2 marks)**

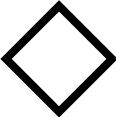5. The **data type** for the variables num1 and num2 is_____. Choose and circle the correct answer – A, B, C or D
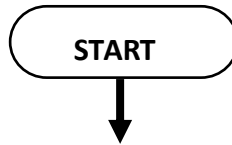
   A. Boolean

   B. float

   C. integer

   D. string

/ 10

SECTION 2 – Flow Chart

Draw a flow chart that shows an algorithm for your restaurant bill discount.

- **Inputs**
    - Food item1 and food item2**.**   **(3 marks)**

- **Calculation**
    - Find the total cost = food item1 + food item2.   **(2 marks)**

- **Decision**
    - Check the total cost >= 100   **(2 marks)**

        - **Output**   **(2 marks)**
            - If "YES" then print "25% discount on the bill" and **STOP.**   **(1 mark)**
            - If "No" then print "No discounts" and **STOP**.

START

/ 10

SECTION 3 – Code Completion

1. Complete the table below. An example is shown. (**3 marks**)

Problem description	Function name	Input	Return value or outputs
Example A function that takes the **floating**-point radius and calculates the circle area.	Circle( )	radius(float)	area(float)
A function to check if an **integer** number is positive, negative or zero			

2. Complete the table below. An example is show (**6 marks**)

Question	Conditional Statements
Example Is z less than 500?	z < 500
Is watermelonSize less than or equal to appleSize?	
	Y > Z
Is Fatima's height greater than than 1.5m and Ahmed's height less than 1m?	

3. Complete the if-else statement to check whether Mansour's bank balance.is enough to buy a mobile phone.
   If the balance is greater than 5000 then print **"Can purchase a mobile phone"**,
   otherwise print **"Cannot purchase a mobile phone"**. (**4 marks**)

```
Balance=input("Mansour's bank balance ")

Balance= int(Balance)

if (                    ):

    print("                           ")

else:

    print("                           ")
```

4. Use the variables speedlimit1 = 100 and speedlimit2 = 50.
   What is the Boolean (true or false) result of the compound condition statement
   (speedlimit1 > 80) and (speedlimit2 < 40). Choose and circle the correct answer.

      a. True   b. False   **(1 mark)**

5. **Complete the elif statement below.** Check for the temperature and print. If the
                                                     (6 marks)

   - temperature is less or equal to 10, **print** "Freezing".
   - temperature is greater than 10 and less than 25, **print** "Warm"".
   - otherwise **print** "Hot".

```
temperature = input("Enter the temperature ")
temperature = int(temperature)
if (                    ):
    print("                    ")
elif (                        ):
    print("                    ")
else:
    print("                    ")
```

                                                               / 20

SECTION 4 – Coding

Design a **complete** the Python program to:

Step 1: Create a **function** that will **add** two of your cards points earned (card1_points, card2_points) and **returns** the total points. The calculation is:

- **total_points = card1_points + card2_points**   **(6 marks)**

Step 2: Check the **total_points** earned to see if you get a free ride. If the   **(4 marks)**

- total_points is <= 500 then print "Sorry. No free ride"
- total_points > 500 and total point < 1000 then print "You get one free ride"
- total_points   >= 1000 then print "Congrats!!! You get three free rides"

```
1   # Function returns the total of the cards points
2   def calculation(card1_point, card2_point):
3       total_points =

4       return

5   # input two cards points and call the function
6   card1_point =

7   card1_point =

8   card2_point =

9   card2_point =

11  # Call the function
12  total_points =

13  if (total_points) <= 500 :

14      print ("Sorry. No free ride")
15  elif (                                        ):

16      print("                                 ")
17  elif (                                        ):

18      print("                                 ")
19  else: print("Error. Wrong input")
```

/ 10

TOTAL

/ 50

End of Examination