PT-2/HALF YEARLY EXAMINATION, 2022-23
INFORMATICS PRACTICES

Time - 7:15 AM to 10:20 AM   **Class - XI**   M.M. : 70

Name of the student _____ Section _____

General Instructions:
- Please read the instructions carefully.
- This Question Paper consists of **36** questions in **four** sections – Section **A**, **B, C & D.**
- Section A contains **11 MCQ type** questions of 1 mark and 5 questions of 2 marks each.
- Section B contains 13 questions of 2 marks each.
- Section C contains 5 **Short Answer type** questions of 3 marks each.
- Section D contains 2 questions of 4 marks.
- All questions of a particular section must be attempted in the correct order.

SECTION- A

Multiple Choice Questions.   (1x11=11)

Q.1   Which among the following acts as an interface between a user and computer hardware?

   a) Interpreter   b) OS   c) Syntax   d) Language

Q.2   A disk defragmenter is an example of:

   a) Application Software   b) System Software   c) Utility program   d) None of these

Q.3   Flash memory is a type of _____ memory.

   a) Primary   b) RAM   c) Secondary   d) Hard disk

Q.4   Component of CPU which is responsible for comparing the contents of two pieces of data is

   a) ALU   b) CU   c) Memory   d) Register

Q.5   You don't have to pay for Python and you can view its source code too. It means Python is

   a) Free and open source   b) Freeware   c) Open source   d) Shareware

Q.6   Which one of these is floor division?

   a) /   b) //   c) %   d) None of these

Q.7   Which of the following is a valid identifier?

   a) My name   b) My-name   c) Myname   d) My.name

Q.8   Which of the following statements will make a repetition construct?

   a) if   b) If-else   c) for   d) None of these

Q.9   Which of the following is not a valid loop in Python?

   a) for   b) do-while   c) while   d) if-else

Q.10 Which of the following can add a list of elements to a list?

a) add()   b) append()   c) extend()   d) None of these

Q.11 To find the last element of list namely 'smiles' in Python, ____ will be used.

a) smiles[-1]   b) smiles[0]   c) smiles[pos]   d) smiles[:-1]

Multiple Choice questions.   **(2x5=10 marks)**

Q.12 What is the value of the expression 10 + 3 ** 3 * 2?

a) 28   b) 739   c) 829   d) 64

Q.13 What will be the result of the expression 10 or 0?

a) 0   b) 1   c) 10   d) 1.0

Q.14 What will be the output after execution of the following code?

```
a=11
b=5
if (a%b==0):
    print ( "Greater")
if (a//b==0):
    print ( "Example")
else:
    print ("Sooo Sorry")
```

a) Sooo Sorry   b) Great   c) Example   d) Great Example

Q.15 What does the following Python program display?

```
x = 3
if x == 8:
    print ("Am I here?", end = '')
elif x == 3:
    print("Or here?", end = "")
else:
    print ("Or over here?")
```

a) Am I here?   b) Or here?

c) Am I here? Or here?   d) Or here? Or over here?

Q.16 Given a list L = [10, 20, 30, 40, 50, 60, 70], what would L[-3: 99] return?

a) [20, 30, 40]   b) [30, 40, 50]   c) [40, 50, 60]   d) [50, 60, 70]

SECTION - B

Objective Questions: **[2x7=14 marks]**

Q.17   Predict the output if the input is 6, 11 & 9:

```
x=int(input("Enter number 1 : "))
y=int(input("Enter number 2 : "))
z=int(input("Enter number 3 : "))
print("Original numbers : ", x, y,z)
x,y,z=y,z,x
print("After swapping :",x,y,z)
```

Q.18   Find the error in following code fragment : (The input entered is XI)

```
c=int(input("Enter your class: "))
print("Your class is ",c)
```

Q.19   What letters will be printed if the user enters 0 for a and 0 for b?

```
a = int(input("Enter an integer: "))
b = int(input("Enter an integer: "))
if a <= 0:
    b = b + 1
else:
    a = a + 1
if a > 0 and b > 0:
    print("W")
elif a > 0:
    print("X")
if b > 0:
    print("Y")
else:
    print("Z")
```

Q.20
```
for i in range(10, 5, -3):
     print (i)
```

How many times will this loop run?

Q.21 What is the output produced when this code executes?

a = 0

for i in range(4,8):

   if i % 2 == 0:

     a = a + i

print (a)

Q.22 Given a list L = [10, 20, 30, 40, 50, 60, 70], what would L[-4:-1] return?

Q.23 What gets printed?
names = ["Hasan", "Balwant", 'Sean', 'Dia']
print(names[-1][-1])

Subjective Questions: [2x6=12]

Q.24 What is the difference between an interpreter and a compiler?

Q.25 What is Cache memory? Why is it considered crucial for a microprocessor's performance?
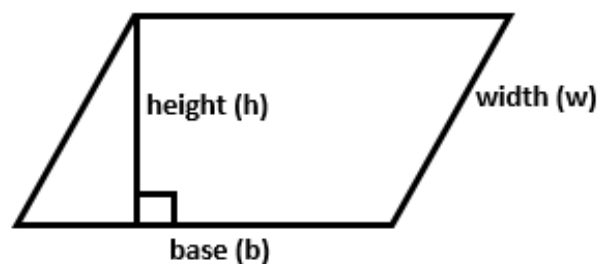
Q.26 Describe the terms free software and open source software.

Q.27 What is the difference between interactive mode and script mode in Python?

Q.28 The following code is not giving desired output. We want to input value as 20 and obtain output as 40. Give reason.

Number=input("Enter Number:")

DoubleTheNumber = Number * 2

Print(DoubleTheNumber)

Q.29 Write a program to read base (b), width (w) and height (h) of a parallelogram and calculate its area and perimeter.

Area = b * h,   Perimeter = 2*b + 2*w

SECTION - C

Answer the following questions: [3x5=15]

Q.30 Give python code to check if the given value is prime number.

Q.31 Give python to check whether the character entered by the user is vowel or consonant.

Q.32 Give python code to display the following pattern using loops:

$$$*

$$**

$***

****

Note: $ indicates space

Q.33 Write a program that asks the user to input a number or a list to be appended to an existing list. Whether the user enters a single number or a list of numbers, the program should append the list accordingly.

OR

Write a program to input a list of integers and display minimum element along with its index without using the readymade functions (sort, sorted, min).

Q.34 Write a program that accepts a list of integers from the user and display the sum of even numbers and sum of odd numbers separately.

Ex: Input = 2,3,4,6,8,1,5

Output:

Sum of even numbers: 20 (i.e. 2+4+6+8)

Sum of odd numbers: 9 (i.e. 3+1+5)

SECTION - D

Answer the following questions: **[4x2=8]**

Q.35 Give python code to calculate sum of following series using loops:

1+2+4+7+11+16 up to n terms.

OR

Give python code to accept a string and display the string in following format:

Ex: Input = OPJS

Output:

O

OP

OPJ

OPJS

Q.36 Give python code to calculate the sum of following series:

1-2+3-4+5-6+7-8..... upto n terms.

Note: n is any value entered by the user.

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