ANANDALAYA
PERIODIC TEST -2
Class : XI

Subject: Computer Science.

MM :70

Date : 22-09-2023

Time: 3 Hours.

General Instructions:
1. Please check this question paper contains 35 questions.
2. The paper is divided into 4 Sections- A, B, C, D and E.
3. Section A, consists of 18 questions (1 to 18). Each question carries 1 Mark.
4. Section B, consists of 7 questions (19 to 25). Each question carries 2 Marks.
5. Section C, consists of 5 questions (26 to 30). Each question carries 3 Marks.
6. Section D, consists of 2 questions (31 to 32). Each question carries 4 Marks.
7. Section E, consists of 3 questions (33 to 35). Each question carries 5 Marks.
8. All programming questions are to be answered using Python Language only.

SECTION A

1. Which of the following option shows the output generated by the code given below: (1)

```
i = 1
while True:
 if i%2 == 0:
          break
 print(i , end=' ')
 i += 2
```

   (A) 1   (B) 1 2   (C) 1 2 3 4 5 6 …   (D) 1 3 5 7 9 11 …

2. Which of the following option shows the output generated by the code given below: (1)

```
x = ['ab', 'cd']
for i in x:
 x.append(i.upper())
print(x)
```
   (A) ['AB', 'CD'].   (B) ['ab', 'cd', 'AB', 'CD'].
   (C) ['ab', 'cd'].   (D) none of the mentioned

3. Which one of the following have the highest precedence in the expression? (1)
   (A) Exponential   (B) Addition   (C) Multiplication   (D) Parentheses

4. Operators with the same precedence are evaluated in which manner? (1)
   (A) Left to Right   (B) Right to Left   (C) Can't say   (D) None of the mentioned

5. Which of the following is an invalid variable? (1)
   (A) my_string_1   (B) 1st_string   (C) foo   (D) _

6. The method generally used in computer for subtraction is? (1)
   (A) 1's complement   (B) 9's complement   (C) 2's complement   (D) None of above

7. How many bits are represented in one byte? (1)
   (A) 8   (B) 16   (C) 64   (D) 256

8. Number of _____ is dependent on the number of conditions to be checked. If the first condition is false, then the next condition is checked, and so on. (1)
   (A) elese if   (B) if else   (C) elif   (D) All of the above

9. Leading whitespace (spaces and tabs) at the beginning of a statement is called _____. (1)
   (A) Indentation   (B) Repetition   (C) Code   (D) None of the above

10. Which of the following is not a Python loop? (1)
    (A) for loop   (B) do-while loop   (C) while loop   (D) None of the above

11. The statements within the body of the _____ must ensure that the condition eventually (1)
    becomes false; otherwise, the loop will become an infinite loop, leading to a logical error in
    the program.
    (A) For loop   (B) While loop   (C) Do-While loop   (D) None of the above

12. What is a variable defined outside a function referred to as? (1)
    (A) local variable   (B) global variable   (C) static Variable   (D) automatic variable

13. What is the output of the program code :   *print(chr(ord(chr(97)))) ?* (1)
    (A) a   (B) A   (C) 97   (D) error

14. Which one of the following is incorrect? (1)
    (A) The variables used inside function are called local variables.
    (B) The local variables of a particular function can be used inside other functions, but these
         cannot be used in global space
    (C) The variables used outside function are called global variables
    (D) In order to change the value of global variable inside function, keyword global is used.

15. Which command is used to add an element in List names L1. (1)
    (A) L1.add(4)   (B) L1.append(4)   (C) L1.new(4)   (D)None of the above

16. What is the index value of 'i' in string "Learning"? (1)
    (A) 5   (B) 3   (C) 6   (D) 7

Q17 and 18 are Assertion and Reasoning based questions. Mark the correct choice as
(A) Both A and R are true and R is the correct explanation for A
(B) Both A and R are true and R is not the correct explanation for A
(C) A is True but R is False
(D) A is false but R is True

17. Assertion (A) : If the arguments in function call statement match the number and order of (1)
    arguments as defined in the function definition, such as arguments are called positional
    arguments.
    Reasoning (R) : During a function call, the argument list first contains default argument(s)
    followed by positional argument(s).

18. Assertion(A): A function is a block of organised and reusable code that is used to perform a (1)
    single related action.
    Reasoning (R) : Function provides better modularity for your application and a high degree
    of code reusability.

SECTION B

19. Rewrite the following code in Python after removing all syntax error(s). Underline each (2)
    correction done in the code:

```
a = int(input("Value:"))
b = 0
for c in range(1,a,2)
b + = c
if c%2 = 0:
Print (c*3)
Else:
print (c*) print (b)
```

20. Rewrite the following code in Python after removing all syntax error(s). Underline each (2)
    correction done in the code:
```
Def checkNumber(N):
        status = N%2
        return
#main-code
num=int( input(" Enter a number to check :))
k=checkNumber(num)
if k = 0:
        print("This is EVEN number")
else
        print("This is ODD number")
```

21. Rewrite the following code in Python after removing all syntax error(s). Underline each (2)
    correction done in the code:
```
"HELLO"=String
for I in range(0,len(String)–1)
        if String[I] => "M":
                print(String[I], "*"
        Else: print(String[I-1])
```

22. The code given below accepts a number as an argument and returns the reverse number. (2)
    Observe the following code carefully and rewrite it after removing all syntax and logical
    errors. Underline all the corrections made.

```
define revNumber(num):
   rev =0
   rem =0
   While num > 0 :
      rem==num %10
      rev=rev *10 + rem
      num= num //10
      return rev
print(revNumber(1234))
```

23. How   = operator is different than = = operator ? (2)

24. What is the use of break and continue statement? (2)

25. List relational operators available in python . (2)

SECTION C

26. Predict the output of the Python code given below: (3)
```
def Changer(P,Q=10):
   P=P+Q
   Q=P-Q
   return P
A=100
B=20
A=Changer(A,B)
print(A,B,end="$")
B=Changer(B)
print(A,B, end="$")
```

27. Predict the output of the Python code given below: (3)
```python
Text1="CHANDRAYAN-3"
Text2=""
I=0
while I < len(Text1):
    if Text1[I]>="0" and Text1[I]<="9":
        Val=int(Text1[I])
        Val=Val+1
        Text2=Text2+str(Val)
    elif Text1[I] >="A" and Text1[I] <="Z":
        Text2=Text2 + (Text1[I+1])
    else:
        Text2=Text2+"#"
    I+=1
print(Text2)
```

28. Predict the output of the Python code given below: (3)
```python
text="Gmail@com"
L=len(text)
ntext=""
for i in range(0,L):
    if text[i].isupper():
        ntext=ntext+text[i].lower()
    elif text[i].isalpha():
        ntext=ntext+text[i-1].upper()
    else:
        ntext=ntext+'xx'
print(ntext)
```

29. Can arithmetic operators be used with strings in Python? Which arithmetic operators can be used with strings? Explain with the help of example . (3)

30. Differentiate between *for loop* and *while loop* in python. (3)

SECTION-D

31. Convert the following binary numbers to hexadecimal number : (4)
    (I) 1101010_2 (III) 1001110_2
    (II) 1101011_2 (IV) 1111111_2

32. Convert the following Decimal numbers to Octal number : (4)
    (I) 25_{10} (III) 93_{10}
    (II) 56_{10} (IV) 89_{10}

SECTION-E

33. Write the definition of a Method MSEARCH(STATES) to display all the state names from a list of STATES, which are starting with alphabet M. (5)
    For example: If the list STATES contains ["MP","UP","MH","DL","MZ","WB"]
    The following should get displayed MP MH MZ

34. Write a Python Program to find the sum of a Series $\frac{1}{1!} + \frac{2}{2!} + \frac{3}{3!} + \frac{4}{4!} \dots \dots + \frac{n}{n!}$ (5)

35. Write a python program to read a line of text and display all the words starting with letter 'L'. (5)