

O. P. JINDAL SCHOOL, SAVITRI NAGAR
Annual Examination (2023 – 2024)
SET- A

Class: XI
Subject: Computer Science (083)

MM:70
Time: 3 Hr

(Fifteen Minutes Extra will be given for reading the Question Paper.)


General Instructions:

1. This question paper contains five sections, Section A to E.
2. This question paper contains five sections, Section A to E.
3. All questions are compulsory.
4. Section A have 18 questions carrying 01 mark each.
5. Section B has 07 Very Short Answer type questions carrying 02 marks each.
6. Section C has 05 Short Answer type questions carrying 03 marks each.
7. Section D has 03 Long Answer type questions carrying 05 marks each.
8. Section E has 02 questions carrying 04 marks each. One internal choice is given in Q35 against part c only.
9. All programming questions are to be answered using Python Language only.

SECTION A		
1.	_____ is the part of the CPU that performs the arithmetic operations. i) ALU ii) CU iii) Memory iv) None	1
2.	A nibble in computer memory is a group of_____. i) 8 bits ii) 8 bytes iii) 4 bits iv) 4 bytes	1
3.	What is the importance of cache memory?	1
4.	What do you mean by application software?	1
5.	2 GB = ___ Bytes.	1
6.	Which of the following fall under utilities software? (i)Text editor (ii) backup (iii) Disk defragmenter (iv) All of the above	1
7.	STR="RGBCOLOR" colors=list(STR) How do we delete 'B' in given List colors? (i) del colors[2] (ii) colors.remove("B") (iii) colors.pop(2) (iv) All of these	1
8.	Which of the following can be used as valid variable identifiers in Python? i) 4th Sum ii) Total iii) Number# iv) _Data	1
9.	To increase the value of k five times using an assignment operator, the correct expression will be : i)k += 5 ii) k *=5 iii) k = k**5 iv) k =*5	1

10.	What is the value of the expression 4+2**5//10	1
11.	What will be the output of the following code:- x = 73 y = x%9 print(y)	1
12.	The _____ statement forms the selection construct in Python. i)for ii) while iii) if iv) None	1

13.	Write logical expression for the following: place is either 'Delhi' or 'Goa' but not Jaipur	1
14.	Identify the type of error a=10 , b=0 c=a/b i)Semantics Error ii) Syntax Error iii) Run Time error iv)No Error	1

15.	It is a _____ Logical Gate  (i) XOR (ii) NAND (iii) AND (iv) OR	1
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16.	What will be the output i=1 while i<=10: i=i+1 print(i)	1
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Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as

(i) Both A and R are true and R is the correct explanation for A

(ii) Both A and R are true and R is not the correct explanation for A

(iii) A is True but R is False

(iv) A is false but R is True

17.	Assertion(A): Comments in the python start with the hash character, #, and extend to the end of the physical line Reason(R): Comments are interpreted and shown on the output screen.	1
18.	Assertion(A): The input statement is used to get the output on the screen. Reason(R): The value inputted by the user while executing a program are fetched and stored in the variable using the input() function.	1

SECTION B

19.	Draw logic circuit for following expression: $(A+B)' \cdot (B'+C)$	2
20.	What is the purpose of count () function in string ? Write an example of count ().	2
21.	Predict the output of the following code: <pre>x=1 if x>3: if x>4: print('a') else: print('b') elif x<2: if (x!=0): print('c') print('d')</pre>	2

22.	Convert the following for loop code in to while loop. <pre>for x in range (1,100,2): print(x)</pre>	2
23.	Explain use of % and //operators with example?	2
24.	What do you understand by syntax error? Give an example in this context.	2
25.	Define the term L- Value and R-Value with example.	2

SECTION C

26.	State De Morgan's law and prove it.	3
27.	Find and write the output of the following python code : <pre>Text="Gmail@Com" Len=len(Text) ntext= "" for i in range(0,Len): if Text[i].isupper(): ntext=ntext+Text[i].lower() elif Text[i].isalpha(): ntext=ntext+Text[i].upper() else: ntext=ntext+'bb' print(ntext)</pre>	3

28.	Write a program to print grade of a student as per input percentage as per criteria given below:- <table border="1" data-bbox="587 331 1038 577" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Percentage range</th> <th>Grade</th> </tr> </thead> <tbody> <tr> <td>More than or equivalent 90</td> <td>A</td> </tr> <tr> <td>More than 80</td> <td>B</td> </tr> <tr> <td>More than 60</td> <td>C</td> </tr> <tr> <td>More than 50</td> <td>D</td> </tr> <tr> <td>More Than 33</td> <td>E</td> </tr> <tr> <td>Less than 33</td> <td>F</td> </tr> </tbody> </table>	Percentage range	Grade	More than or equivalent 90	A	More than 80	B	More than 60	C	More than 50	D	More Than 33	E	Less than 33	F	3
Percentage range	Grade															
More than or equivalent 90	A															
More than 80	B															
More than 60	C															
More than 50	D															
More Than 33	E															
Less than 33	F															
29.	Write a program to check whether an integer number input by a user is prime or not? OR Write a program to print the Fibonacci Series till n terms, where n is entered by the user.	3														
30.	Explain Arithmetic, Relational and logical Operators with one example for all these operators. OR What do you mean by data types? Explain different datatypes available in python with examples.	3														
SECTION D																
31.	Convert the following accordingly: (i) $(106)_{10} = (?)_{16}$ (ii) $(78)_{10} = (?)_2$ (iii) $((122)_{10} = (?)_2$ (iv) $(13B)_{16} = (?)_{10}$ (v) $(101101)_2 = (?)_{10}$	4+1														
32.	a) What do you mean by PC intrusion? b) Rewrite the following code after removing syntax error and underline the correction: <pre>x=int("Enter value for x:") for y in range[0,11]: if x=y print(x+y) Else: Print x-y</pre> c) What possible output(s) are expected to be displayed on screen at the time of execution of the program from following code? <pre>from random import randint LST=[5,10,15,20,25,30,35,40,45,50,60,70] first = random.randint(3,8) -1 second = random.randint(4,9) -2third = random.randint(6,11) -3 print(LST[first],"#", LST[second],"#", LST[third],"#")</pre> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> i) 20#25#25# iii) 15#60#70# </div> <div style="width: 45%;"> ii) 30#40#70# iv) 35#40#60# </div> </div>	1+2+2														

33.	<p>Expand the following: -</p> <p>a. What is the difference between '=' and '=='? Explain with the help of an example.</p> <p>b. Write the full forms/one line for the following: IPR, GPL, Proprietary Software, URL</p> <p>c. Identify the Open Source software(s) from the following: -MySQL, Quick Heal Antivirus, Python, Microsoft Office.</p>	1+2+2
SECTION E		
34	<p>Write the solution for the following problem:</p> <p>(a) Write the output of this program:</p> <pre>s1='Hello World!' index=0 while index< (len(s1)-3): print(s1[index], end=' ')index =index+ 1</pre> <p style="text-align: center;">OR</p> <p>Write the output of this program. Justify your answer also. my_dict={ }</p> <pre>my_dict[1]=1 my_dict['1']=2 my_dict[1.0]=4 print(my_dict)</pre> <p>(b) Write a Python program to create a dictionary to store names of states and their capitals.</p> <p style="text-align: center;">OR</p> <p>Write a Python program to create a third dictionary from two dictionaries in the way so that the values are shown in third dictionary.</p>	2+2
35	<p>i) Write logical expression for the following:</p> <p style="padding-left: 40px;">Name is Raj and age is between 18 and 25</p> <p>ii) Name the online activities which would help you detect that your friend is being cyber bullied.</p> <p>iii) if...elif.....else are not block or compound statement (True/False)</p> <p style="padding-left: 40px;">Write a program to input a list of numbers and find the smallest and largest number from the list.</p> <p style="text-align: center;">OR (Choice is only for Part (iii))</p> <p>Write a python program to print a sum of series up to 10 integers using for loop.</p>	1+1+2

