



CLASS XI

FIRST TERMINAL EXAMINATION 2023-24

Time: 3 HRS

Date:12/09/23

Subject: COMPUTER SCIENCE (083)

Max Marks: 70

General Instructions:

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

QNo.	Section-A	Marks
1	Which of the following is an invalid identifier? a. CS_class_XII b.csclass12 c._csc12 d.12CS	1
2	Identify the invalid logical operator in Python from the following. a) and b) or c) by d) not	1
3	Consider the given expression: not True and False or True Which of the following will be correct output if the given expression is evaluated? (a) True (b) False (c) NONE (d) NULL	1
4	Identify the mutable data types? (i) List (ii) Tuple (iii) Dictionary (iv) String	1
5	What will be the output of the following code? x,y=2,6 x,y=y,x+2 print(x,y)	1
6	Write a statement in Python to declare a dictionary named dict whose keys are Sub1, Sub2, Sub3 and values are Physics, Chemistry, Math respectively.	1
7	_____ is an empty statement in python. a)break b)continue c) else d)pass	1
8	What is the output when following statement is executed ? >>>"a"+"bc" a) a b) bc c) bca d) abc	1
9	Read the code shown below carefully and pick out the keys? d = {"john":40, "peter":45} a) "john", 40, 45, and "peter" b) "john" and "peter" c) 40 and 45 d) d = (40:"john", 45:"peter")	1

10	Consider the following string myAddress: myAddress = "WZ-1,New Ganga Nagar,New Delhi" What will be the output of following string operation print(myAddress.upper())	1
11	In python _____ mode does not save the commands while _____ mode allows programs to save.	1
12	Single line comments in python begins with _____ symbol. a) # b) @ c) ' ' d) *	1
13	_____ are reserved words used by python interpreter to recognize the structure of a program. i) Identifiers ii) Tokens iii) Literals iv) Keywords	1
14	A group of eight bits is called a _____. a) Byte b) Nibble c) MB d) GB	1
15	Consider the statements given below and then choose the correct output from the given options: pride="G20 Presidency" print(pride[2:10]) Options: a. '0 Presid' b. '0 Presi' c. '20 Pre' d. 'Preside'	1
16	Identify the data type of INFO: INFO = ['hello',203,'9',[5,6]] a. Dictionary b. String c. Tuple d. List	1
17	Assertion (A):- The Hexadecimal system uses base 16. Reason (R) : It uses the digits 0 through 9 and letters A- F as symbols 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	1
18	Assertion(A): string is a mutable data type Reasoning(R): len() function can be used to find the length of a string. (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	1

SECTION-B

19	Evaluate the following expressions: a) $16 // 3 + 3 ** 3 + 15 / 4 - 9$ b) $10 > 5$ and $7 > 12$ or not $18 > 3$	2
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20	<p>Convert the following while loop into for loop.</p> <pre>i=10 while i<250: print(i) i=i+50</pre> <p style="text-align: center;">OR</p> <p>Convert the following for loop into while loop. for a in range(25,500,25): print(a)</p>	2
21	Write an algorithm to find the largest among two numbers.	2
22	<p>What is meant by traversing a string ?</p> <p>Traverse the given string .</p> <p>Str="hello Python"</p>	2
23	<p>Observe the following code carefully and rewrite it after removing all syntax and logical errors. Underline all the corrections made.</p> <pre>A=int(input("Enter a value") while A!=0 count=count+1 if count<A print(count) else print(count+A) A=A+1</pre>	2
24	<p>Explain function split() in string with examples.</p> <p style="text-align: center;">OR</p> <p>Explain upper() and lower() functions in String with examples.</p>	2
25	<p>a) Verify the following truth table.</p> <p>i) $X.X'=0$</p> <p>b) Convert $(52)_{10}$ into binary</p>	2
Section- C		
26	<p>a)What is meant by a flowchart?</p> <p>b)Draw a flowchart to find the area of a rectangle.</p>	3
27	<p>a) Write the output from the following code:</p> <pre>Sum = 0 for i in range(1,11,2): Sum+=i print ("SUM = ", Sum)</pre> <p>b) Write the output from the following code:</p> <pre>x,y= 2,4 if ((x+y) == 10): print("True") else: print("False")</pre>	3

28	<p>Write the output of the following codes:</p> <p>i. a,b,c=10,20,30 p,q,r=c-5,a+3,b-4 print("a and b ,c : " ,p,q,r)</p> <p>ii.</p> <pre> i=0 while(i<10): i=i+1 if i==5: break print(i,end=" ") </pre>	3
29	<p>a) Explain tokens with an example. b) Python is a cross-platform language .How?</p>	3
30	<p>Write a program to check whether an input number is a palindrome or not. OR Write a menu driven program to find the area of the shapes.(1.circle($3.14 * r^2$) 2.rectangle(lb) 3.square(side²) 4. Triangle($1/2 b h$))</p>	3
Section-D		
31.	<p>A) Describe the operations performed on a string, with suitable examples? OR B)input a string and perform the given operation i) len() ii) capitalize() iii)upper() iv) lower() v)swapcase()</p>	4
32.	<p>Draw the logic circuit for the given Boolean expression</p> <p>i. $PQ' + PR'$</p> <p>ii. Convert the hexadecimal number into its binary equivalent. $(A2F)_{16} = ()_2$</p> <p>iii.write the output of the given code. <pre> x=5 if x>2 and x==6: print("ok") else: print("sorry") </pre> </p> <p>iv. De Morgan's law states that: a) $(P.Q)' = P' + Q'$ b) $(P+Q)' = P' + Q'$ c). $P'+Q' = P'.Q'$ d).$(P.Q)' = P'.Q$</p>	4
SECTION E		
33.	<p>(a) What is meant by a string? (b) Consider the following string mySubject: mySubject = "Computer Science" What will be the output of the following string operations:- i. print(mySubject[0:len(mySubject)]) ii. print(mySubject[-7:-1])</p>	5

	<pre>iii. print(mySubject[::2]) iv. print(mySubject[len(mySubject)-1]) v. print(2*mySubject) vi. print(mySubject[::-2]) vii. print(mySubject.swapcase()) viii.print(mySubject.lower())</pre>	
35.	<p>a) Write a python program to print all the even numbers between 100 and 200.</p> <p>b) What do you understand by the term immutable? Which are the immutable data types in python.</p> <p style="text-align: center;">OR</p> <p>a) A year is a leap year if it is divisible by 4,except that years divisible by 100 are not leap years unless they are also divisible by 400.Write a python program to read a year and print it is a leap year or not.</p> <p>b) Explain the features of python programming.</p>	5