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INDIAN SCHOOL SALALAH
FIRST TERM EXAMINATION – SEPTEMBER 2024



COMPUTER SCIENCE (083)





Class: **XI**Date: **26/09/2024**Time: **3 HRS**Maximum 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 D has 02 questions carrying 04 marks each.
7. Section E has 03 questions carrying 05 marks each.
8. All programming questions are to be answered using Python Language only.

Section- A

01	Which smaller unit of CPU directs and coordinates all activities within it and determines the sequence in which instructions are executed, sending instructions sequence to smaller unit. (a) CU (b) ALU (c) Processor (d) All of the above	1
02	Which is not a secondary storage device? (a) RAM (b) ROM (c) Cache Memory (d) All of the above	1
03	1 TB = _____ MB (a) 1024 (b) 1024 ² (c) 1024 ³ (d) 1024 ⁴	1
04	Choose the Operating System from the following (a) Oracle (b) Unix (c) Photoshop (d) Media Player	1
05	The software used for the maintenance and configuration of a computer system is called _____	1
06	State True or False: Anti-virus is a type of system utility software.	1
07	Choose the general-purpose application software (a) Microsoft Edge (b) Mac (c) Compiler (d) Java	1
08	ALU stands for _____	1

09	Identify the symbol used to represent process in flowchart. (a)  (b)  (c)  (d) 	1
10	in is a _____ operator (a) relational (b) logical (c) identity (d) membership	1
11	Which is not a valid identifier (a) _abc (b) pqr^3 (c) mnp123 (d) xyz_	1
12	Identify the mutable datatype (a) int (b) float (c) tuple (d) list	1
13	Evaluate the expression and identify the correct answer $A = 15 + 6 * 2 - 4 // 2 \% 3$ (a) 20 (b) 24 (c) 25 (d) 26	1
14	Consider the following code : num = [5, 4, 3, [2], 1] Which line of code will cause an error? 1. print(num[0]) 2. print(num[3][0]) 3. print(num[5]) (a) Line 1 (b) Line 2 (c) Line 3 (d) None of these	1
15	What is the output of the following code? t1 = (3, 4, (6, 1), 7) t = t1 * 2 print(t) (a) (6, 8, (12, 2), 14) (b) (3, 4, (6, 1), 7, 3, 4, (6, 1), 7) (c) (3, 4, (6, 1), 7) (d) Error	1
16	Consider the following code >>>dic1 = {'A' : 15, 'B' : 16, 'C' : 17} >>>print(dic1[1]) (a) B (b) 16 (c) {'B' : 16} (d) Error	1
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): Python is a dynamically typed language. Reasoning (R): In Python, the type of a variable is explicitly declared before it is used.	1
18	Assertion (A): Cache memory is faster than main memory. Reasoning (R): Cache memory is located closer to the CPU than the main memory (RAM).	1

Section- B		
19	Write the difference between RAM and ROM	2
20	Write a short note on Device Driver software	2
21	Convert the following program using for loop without changing the logic : <pre> count = 0 while count < 4: if count % 2 == 0: print("Even") else: print("Odd") count += 1 </pre>	2
22	Consider the following dictionary subject. <pre> subject = {1 : 'Hindi', 2 : 'Physics', 3 : 'Chemistry', 4: 'CS', 5 : 'Mathematics'} </pre> Write a program in Python to display the values(subjects) having the number of characters is greater than 4.	2
23	Write the output of the following code: <pre> A = [10, 11, 12, 30, 32, 34, 35, 38, 40, 2] s = 0 for i in range(len(A) // 2): s += A[i] * 2 print("The sum is", s) </pre>	2
24	Consider the following tuple t1 = (10, 15, 20, 25) Write a program in Python to change the value 15 to 75	2
25	Write a program in Python to display the following pattern: <pre> 5 5 4 5 4 3 5 4 3 2 5 4 3 2 1 </pre>	2
Section- C		
26	What are the functions of Operating System? Explain in detail.	3
27	Write a program in Python to input a digit (0 – 9) and display it in words.	3

28	<p>Write the output of the following code :</p> <pre> n1, n2, s = 7, 8, 73 if n1 > 0 and n2 > 5: if n1 > 7: print("Code Worked") else: print("Code Might Work") else: print("Code Will Not Work") </pre>	3
29	<p>Find the final value of x.</p> <pre> a, b, x, y = 10, 12, 5, 6 while a <= b : if a%2 == 0: x += y else: x -= y a = a+1 </pre>	3
30	<p>Write a program in Python to input a string and display the number of Capital letters, Small letters and digits separately.</p>	3
Section D		
31	<p>Write a program in Python that takes any two lists L and M of the same size and add their elements together to form a new list N whose elements are the sum corresponding elements of L and M.</p> <p>For e.g., if L = [3, 1, 4] and M = [1, 5, 9] then N = [4, 6, 13]</p> <p>(Note : Create L and M using eval() method)</p> <p style="text-align: center;">OR</p> <p>Write a program in Python to read a list of numbers and create another list which store half of each even number and double each odd number in the list.</p> <p>E.g., if L = [3, 5 6, 2, 7, 4, 5, 8] The new list should contain [6, 10, 3, 1, 14, 2, 10, 4]</p>	4
32	<p>Create a Python dictionary p that stores the details of patients in a hospital, including their names, ages and departments in a dictionary as value. The program should display the name and department of the patients whose age is above a specific number.</p> <p>E.g., if p = {'patient1' : {'Name' : 'A', 'Age' : 35, 'Dept' : 'Ortho'}, 'patient2' : {'Name' : 'B', 'Age' : 28, 'Dept' : 'Gynaec'}, 'patient3' : {'Name' : 'C', 'Age' : 32, 'Dept' : 'Cardiac'}}</p>	4

	<p>Enter the age → 30</p> <p>Output</p> <p>A Ortho</p> <p>C Cardiac</p>	
Section E		
33	<p>Consider the following list</p> <pre>L = ['abc', 'Physics', 'Chemistry', 'cs']</pre> <p>Write the Python command for the following using list methods</p> <ol style="list-style-type: none"> Insert 'Biology' between 'Physics' and 'Chemistry'. Remove 'cs' from L Remove 'Physics' and return it. Sort elements of L in ascending order and store it in L1 and display L1. To find the index of 'Physics' 	5
34	<p>Consider the following string:</p> <pre>s1 = "Great India"</pre> <p>Write the output of the following string operations.</p> <ol style="list-style-type: none"> <code>print(s1[0 : len(s1)])</code> <code>print(s1[-7 : -1])</code> <code>print(s1[: : 2])</code> <code>print(s1[: 2] + s1[2 :])</code> <code>print(2 * s1)</code> 	5
35	<p>Consider the following dictionary 'd1' and write the output of the code given below:</p> <pre>d1 = {1 : 10, 3 : 45, 6 : 60, 7 : 70}</pre> <ol style="list-style-type: none"> <code>>>>d1.keys()</code> <code>>>>d1.values()</code> <code>>>>d1.items()</code> <pre>>>>d2 = {1 : 15, 2 : 20, 3 : 30} >>>d1.update(d2) >>>print(d1)</pre> <code>>>>d1.setdefault(2, 40)</code> 	5