केन्द्रीय विद्यालय संगठन, लखनऊ संभाग
KENDRIYA VIDYALAYA SANGATHAN, LUCKNOW REGION
Half Yearly Exam 2024-25

MM: 70　　　　　COMPUTER SCIENCE (083) CLASS – XI

TIME: 3 hour

[SECTION – A , 1 MARKS EACH]

1	Name the input or output device used to do the following: a) To output audio b) To enter textual data	1 mark
2	Example of Operating System: a) Notepad　　b) Ubuntu　　c) Excel　d) Powerpoint	1 mark
3	State which of the following is logical statement: a) Try to run faster b) India is the world champion of world cup 1983 c) Why did you come late? d) None of these.	1 Mark
4	The base of Octal Number System: 　a) 1　b) 2　　c) 4　d) 8	1 Mark
5	Write full form of ASCII	1 Mark
6	Give an example of a loop that is to be executed a certain number of times.	1 Mark
7	Identify the valid logical operator in Python from the following. a) ? b) < c)** d) and	1 Mark
8	Consider the following string myQ: myQ = '" Name the capital of the country which bags most bronze medals in the recently held Olympic Games ? '" What will be the output of following string operation : 　print(myQ.upper ( ))	1 Mark
9	Write the significance of break statement	1 Mark
10	Write an algorithm or pseudocode or flowchart , to find the greatest among two different numbers entered by the user.	1 Mark
11	Why the following code is giving error? S=input('enter name') S[len(S) – 1] = '.' print(S)	1 Mark

[SECTION – B , 2 MARKS EACH]

12	Identify the category (system, application, programming tool) of the following software: a) Compiler b) Assembler c) Ubuntu. d) Text editor	2 mark
13	Briefly write the functions of Operating System.	2 mark
14	Draw the logic circuit diagram for the following: F(a, b, c) = ab + ac' + b'a'c'	2 mark
15	Convert (10101100) to octal number.	2 Mark
16	What is the advantage of preparing a digital content in Indian language using UNICODE font?	2 Mark
17	Explain Implicit Type Casting with an example.	2 Mark
18	Differentiate between syntax error and run time error.	2 Mark
19	Evaluate the following expressions: a) str(34/2+3)+ 'a'*2 b) 1> 0 and 7 > 10 or not 12 > 5	2 Mark

20	Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.
	
	    P=[30,76,89,23]
	    For V in range(0,Len(P))
	      if P(V) %2==0:
	        print ('At ', V, 'Even')
	      else :
	        print (V+ 3)
		2 Mark

[SECTION – C , 3 or 4 MARKS EACH]

21	What is the need of RAM? How does it differ from ROM?	3 Mark
22	a) Convert $(122)_{10}$ to binary number b) Convert (3A5)16 into decimal number.	4 Mark
23	The formula E = mc2 states that the equivalent energy (E) can be calculated as the mass (m) multiplied by the speed of light (c = about 3×108 m/s) squared. Write a program that accepts the mass of an object and determines its equivalent energy. **OR** Write a program to calculate in how many days a work will be completed by three persons A, B and C together. A, B, C take x days, y days and z days respectively to do the job alone. The formula to calculate the number of days if they work together is xyz/(xy + yz + xz) days where x, y, and z are given as input to the program.	4 Mark

24	What will be the output produced on the execution of the following code?
	height = 190
	if height >= 180:
	   print("You cross the bar")
	   print("G")
	print('S')
		4 Mark

25	What will be the output produced when the following code segment is executed s = 'abc100' for i in s: print(i.upper( ))	4 mark
26	Differentiate between for and while. Also give brief description of break and continue student.	4 mark

27	Describe the functions given below with atleast one example of each.
	   i) len( )
	   ii) isupper( )
	   iii) lower( )
	   iv) strip( )
		4 mark

28	Describe the architecture of computer system with the block daigram.	4 mark
29	Differentiate between compiler and interpreter.	4 mark
30	Describe between implicit data type and explicit data type with example of each.	4 mark
31	What is cache memory?	2 mark