

KENDRIYA VIDYALAYA SITAPUR SHIFT-1

CLASS XI , COMPUTER SCIENCE (083)

UNIT TEST-I 2023

MM: 40

TIME: 90 MIN

General Instructions: i) All questions are compulsory. ii) Programming Language: Python

[1]	a)	The device to assist a visually-impaired individual in entering data i) Keyboard ii) Mouse iii) Braille Keyboard iv) Screen Reader	1
	b)	The size of RAM of any one computer in your school is approx. a) 1 MB b) 1 TB c) 4 MB d) 4 GB	1
	c)	The base of Hexadecimal number system: a) 1 b) 2 c) 8 d) 16	1
	d)	The numeric ASCII code of the alphabet 'A' is: a) 65 b) 67 c) 95 d) 97	1
	e)	Identify the universal logic gate from the following: i) AND gate ii) OR gate iii) NAND gate iv) XOR gate	1
	f)	Which of the following identifier names is/are invalid ? i) Serial_no ii) total-marks iii) _Percentage iv) Hundred100	1
	g)	The function in python to take the value from user and store in variable: i) in() ii). input() iii) out() iv) print()	1
	h)	The immutable data type: i) list ii). int iii). Dictionary iv) None of these	1
	i)	.The operator to compute power i) + ii) - iii). * Iv) **	1
	j)	The prefix to represent the Hexadecimal number in Python program: i) 0 ii) 0b iii) 0x iv) None of these	1
[2]	a)	Convert the following binary numbers into octal and hexadecimal number i) 1110001000 ii) 110110101 iii) 1010100	3
	b)	Draw the truth table of AND gate	1
	c)	Write the corresponding Python assignment statements: i) Assign 10 to variable length and 20 to variable breadth ii) Assign the average of values of variables length and breadth to a variable sum.	1
	d)	Identify the category (system, application, programming tool) of the following software: a) Compiler b) Ubuntu	1
	e)	Name the input or output device used to do the following: a) To enter textual data b) To output audio	1
	f)	Give full form of ASCII and ISCII	1
	g)	Draw the logic diagram (using logic gates) for the following logic expression: $XY + X'Y'$ OR State and prove the Demorgan's theorem	2
	h)	Write the base values of binary and octal number systems.	1

	i)	Express the following decimal numbers into binary numbers. i) 23 ii) 45.71	2
	j)	Express the following octal numbers into their equivalent decimal numbers: i) 6760 ii) 455	2
[3]	a)	Draw the block diagram of computer system, Write in brief about each component of computer system.	2
	b)	Write the logical expressions corresponding to the following statements in Python a) The sum of 20 and -10 is less than 12 b) num3 is not more than 24 c) 6.75 is between the integer values of num1 and num2	3
	c)	Write the output of the following expression: print(10 != 9 and 20 >= 20)	1
	d)	What is keyword? Give any two examples.	1
	e)	Write the output of following code: num1 = 4 num2 = num1 + 1 num1 = 2 print(num1 , num2)	2
[4]	a)	Categorise the following as syntax error, logical error , runtime error i) 25 / 0 ii) num1 = 25 num2 = 0	1
	b)	Which data type will be used to represent the following data values : i) Number of months in year ii) Name of the student	1
	c)	(Hint: 7 bit ASCII Code and exclude the double quotes of given text) How does the computer understand the following text? “HOTS” OR Draw the flow chart/ Write the algorithm to input the temperature in degree celcius and convert it into fahrenheit value and show that.	4