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: P

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

i)	Express the following decimal numbers into binary numbers.	2
j)		2
	decimal numbers:	
	i) 6760 ii) 455	
a)	Draw the block diagram of computer system, Wfrite in brief	2
	about each component of computer system.	
b)	Write the logical expressions corresponding to the following	3
	/	
c)	· · · · · · · · · · · · · · · · · · ·	1
'		
d)	What is keyword? Give any two examples.	1
e)	Write the output of following code:	2
	$ \operatorname{num} 1 = 4 $	
	num2 = num1 + 1	
	num1 = 2	
	print(num1 , num2)	
a)	Categorise the following as syntax error, logical error , runtime error	1
	i) 25 / 0	
	ii) num1 = 25	
b)		1
	l '	
c)	(Hint: 7 bit ASCII Code and exclude the double quotes of given	4
	text)	
	How does the computer understand the following text?	
	"HOTS"	
	OR	
	Draw the flow chart/ Write the algorithm to input the temperature in degree	
	· · · · · · · · · · · · · · · · · · ·	
	j) a) b) c) d) e)	 i) 23 ii) 45.71 j) Express the following octal numbers into their equivalent decimal numbers: i) 6760 ii) 455 a) Draw the block diagram of computer system, Wfrite in brief about each component of computer system. 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 c) Write the output of the following expression: print(10!=9 and 20 >= 20) d) What is keyword? Give any two examples. e) Write the output of following code: num1 = 4 num2 = num1 + 1 num1 = 2 print(num1, num2) a) Categorise the following as syntax error, logical error, runtime error i) 25 / 0 ii) num1 = 25 num2 = 0 b) Which data type will be used to represent the following data values: i) Number of months in year ii) Name of the student c) (Hint: 7 bit ASCII Code and exclude the double quotes of given text) How does the computer understand the following text? "HOTS"