

PM SHRI KENDRIYA VIDYALAYA NO 2 JHANSI CANTT

Half Yearly Examination 2024-25

Class: XI

SUBJECT: Computer Science (083)

Time Allowed: 3 Hours

Maximum Marks: 70

General Instructions:

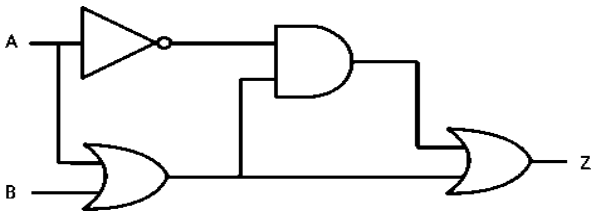
- Please check this question paper contains 37 questions.
- The paper is divided into 5 Sections- A, B, C, D and E.
- Section A, consists of 21 questions (1 to 21). Each question carries 1 Mark.
- Section B, consists of 7 questions (22 to 28). Each question carries 2 Marks.
- Section C, consists of 3 questions (29 to 31). Each question carries 3 Marks.
- Section D, consists of 4 questions (32 to 35). Each question carries 4 Marks.
- Section E, consists of 2 questions (36 to 37). Each question carries 5 Marks.
- All programming questions are to be answered using Python Language only.

QNo	Section-A (21 x 1 = 21 Marks)	Marks
1	<p>A permanent memory which holds data and instructions for start-up of the computer and does not erase data after power off.</p> <p>A. CPU B. NIC</p> <p>C. ROM D. RAM</p>	1
2	<p>USB stands for</p> <p>A. Uniform Service Bus B. Universal Serial Bus</p> <p>C. Universal Service Bus D. Universal Sector Bus</p>	1
3	<p>Which of the following is designed to control the operations of a computer?</p> <p>A. System software B. Application software</p> <p>C. Utility software D. General purpose software</p>	1
4	<p>How many entries will be in the truth table of a 4 input AND gate?</p> <p>A. 4 B. 8</p> <p>C. 16 D. 32</p>	1
5	<p>Which of the following operating systems does not support more than one program at a time?</p> <p>A. Linux B. Windows</p>	1

	C. MAC	D. DOS	
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	<pre>print('End of program')</pre> <p>A. 0 1 2 3 4</p> <p>B. 0 1 2 3 4 End of program</p> <p>C. 0 1 2 3 4 6 7 8 9</p> <p>D. Error we can't use two else in this way.</p>	
13	<p>How many times the message Hello will appear when this loop runs?</p> <pre>while (0): print('Hello')</pre> <p>A. Not at all B. Only once</p> <p>C. Two times D. Infinite times</p>	1
14	<p>Write output for the following python code:</p> <pre>K=[1,2,3,[4,5,6],7,[8,9,10]] print (len (K))</pre> <p>A. 10 B. 4</p> <p>C. 5 D. 6</p>	1
15	<p>What will be the output of the following code?</p> <pre>L1=[1,2,3,4,5] L1.reverse() print(L1)</pre> <p>A. [1,2,3,4,5] B. [5,4,3,2,1]</p> <p>C. Error D. reverse() function doesn't exist in python</p>	1
16	<p>What is the output of the following code ?</p> <pre>example = 'computar science' example[6] = 'e' print (example)</pre> <p>A. compuear science B. computer science</p> <p>C. computar science D. Error.</p>	1
17	<p>Arrange the following units of memory in decreasing order of storage</p> <p>i) KB (Kilobyte) ii) GB (Gigabyte) iii) MB (Megabyte) iv) TB (Terabyte)</p> <p>a) iv) TB ii) GB i) KB iii) MB</p> <p>b) ii) GB iv) TB i) KB iii) MB</p> <p>c) iv) TB iii) MB i) KB ii) GB</p> <p>d) iv) TB ii) GB iii) MB i) KB</p>	
18	<p>_____ is volatile i.e. as long as the power is supplied to the computer, it retains the data in it.</p> <p>a) RAM b) CD c) ROM d) Hard Disk</p>	1

19	An antivirus software is an example of _____ a) System software b) Pirated software c) Freeware d) Utility software	1
	Q20 and 21 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	
20	(A) ASSERTION:1st Name is an invalid python identifier (R) REASON:The first character of an identifier name must be a letter or an	1

	underscore(_)	
21	(A) Assertion str1="Hello" and str2="World" then print(str1*3) will give error (R) Reason : * replicates the string hence correct output will be HelloHelloHello	1
Q NO	Section-B (7 x 2=14 Marks)	Marks
22	Find errors in the following code (if any) and correct the code by rewriting it and underlining the corrections : x = int ('Enter value for x : ') for in range [0, 10] : if x == y : print(x + y) else x != y : print (x - y)	2
23	Distinguish between primary memory & secondary memory?	2
24	Find the output of the following code segment: for x in range(1,4): for y in range(2,5): if x * y > 10: break print (x * y, end= ' ')	2
25	Write the equivalent Boolean Expression for the following Logic Circuit 	2
26	Write the difference between compiler and interpreter?	2
27	Identify which of the following is a valid string operation I. 'python' + 2023 II. 'python' + '2023' III. 'python' * 5 IV. python * 'python'	2
28	Differentiate between application software and utility software?	2
	Section-C(3 x 3 =9 Marks)	
29	Write a python code to accept a list of 10 elements from the user and and display the following. 1. Sum of negative numbers 2. Sum of positive even numbers 3. Sum of positive odd numbers For example : if list is L1=[5,9,-4,12,-3,7,-15,11,2]	3

	<p>Output should be</p> <ol style="list-style-type: none"> 1. Sum of negative numbers : -22 2. Sum of positive even numbers : 14 3. Sum of positive odd numbers : 32 	
30	Draw the logical diagram for the expression : $A'B+AC$	3

31	Convert the following I. $(10111100)_2 - (?)_{10}$ II. $(999)_{10} - (?)_2$ III. $(254)_{10} - (?)_8$	3
Qno	Section-D (4x 4=16 Marks)	Marks
32	Write a python program to find whether the number entered by the user is a prime no or not?	4
33	Write python statement for the following for list L= [2,4,8,6,34,56,67,87,34] (i) Add an element 65 to the list. (ii) Delete 8 from the list (iii) Delete element at index 4 (iv) Find minimum element of L	4
34	Write a program to input a string and print number of uppercase and lowercase letters in it. For Example: If a user enters a string as given below: string="Strings in Python" Then the output should be: Number of uppercase letters: 2 Number of lowercase letters: 13	4
35	What are the two main categories of system software?	4
	Section-B (5x 2=10 Marks)	
36	To test the knowledge of class XI students Mr. Suraj PGT(CS) has written the following statement on the board <code>str1='Digital India'</code> on the basis of the above string he asked the students to write the output of the following questions. I) <code>print (str1 [3: :2])</code> ii) <code>print (str1[: : -1])</code> iii) <code>print(str1[4 : 9])</code> iv) <code>print(str1.isalpha())</code> v) <code>print(str1.find ('India'))</code>	5

37	<p>I. Write a python program to print the sum of all natural numbers from 1 100 using loop.</p> <p>II. Write a python program to print the following pattern</p> <pre> * * * * * * * * * * * * * * * </pre> <p>III. Write use of break statement</p>	2+2+1

*****ALL THE BEST*****