



Delhi Public School, Howrah

PERIODIC TEST III (2024-2025)

CLASS – XI

Care must be taken not to write anything on the question paper. All the questions must be attempted in the correct sequence.

SUBJECT: COMPUTER SCIENCE (CODE - 083)

THEORY EXAMINATION

Time Allowed:- 3 Hours

F.M.-70

General Instructions:

- This question paper contains 37 questions.
- All questions are compulsory. However, internal choices have been provided in some questions. Attempt only one of the choices in such 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.
- In case of MCQ, text of the correct answer should also be written.

SECTION - A

1.	_____ software is made to perform a specific task. (a) System (b) Application (c) Utility (d) Open Source	(1)
2.	State TRUE or FALSE. $X.X'=X$ and $X+X'=X$	(1)
3.	In binary, $(7)_{10}$ is represented by:- (a) $(101)_2$ (b) $(011)_2$ (c) $(110)_2$ (d) $(111)_2$	(1)
4.	Which of the following is not a sequence datatype in Python? (a)List (b)Set (c) String (d) Tuple	(1)
5.	_____ is a fraudulent activity in which a person pretends to be trustworthy to acquire sensitive information. (a) Phishing (b) Pharming (c) Retail fraud (d) Spamming	(1)
6.	Predict the output when the following code is executed? <pre>X="1a3" Sum = 0 for i in range X: if i.isdigit(): Sum+=int(i) Print(Sum)</pre>	(1)
7.	We do not leave an active digital footprint when we _____ over the Internet. (a) Comment on Facebook (b) tweet on Twitter (c) Send an email (d) Search information	(1)
8.	Rudra wants to divide a number and store the result without decimal places into an integer variable. Suggest him an appropriate operator from the following - (a)/ (b) % (c) // (d) Both (A) & (B)	(1)

9.	_____ means breaking down complex problems into smaller, more manageable and simpler problems. (a) Decomposition (b) Abstraction (c) Pattern recognition (d) Algorithm design.	(1)
10.	What is the difference between the "is" and "==" operators in Python? a) Both "is" and "==" operators check for value equality. (b) The "is" operator checks for object identity, while "==" checks for value equality. (c) The "is" operator checks for value equality, while "==" checks for object identity. (d) Both "is" and "==" operators check for object identity.	(1)
11.	Fill in the blank:- A text expression must have a/an _____ operator.	(1)
12.	Octal number system is composed of--- (a) 2 symbols (b) 10 symbols (c) 8 symbols (d) 16 symbols	(1)
13.	Write the output of the following: for i in (1,2,3) print("A"*i) (a) 1 (b) A*1 (c) A (d) Error 2 A*2 AA 3 A*3 AAA	(1)
14.	Base is also known as- (a) System (b) Radix (c) Nibble (d) Bit	(1)
15.	What is the output of the following code snippet? print (2%6) (a) Value Error (b) 0.33 (c) 2 (d) 2.3	(1)
16.	CLI stands for (a) Common Line Interface (b) Command Line Interface (c) Command Lane Interface (d) Comment Line Interface	(1)
17.	Which of the following reduces e-waste? (a) purchasing more and more gadget (b) using gadgets for a short time and then discarding (c) good maintenance (d) all of these	(1)
18.	Predict the output. a=(1,3,2)*2 print(a) (a) (1, 3, 2, 1, 3, 2) (b) (1, 1, 3, 3, 2, 2) (c) (2,6,4) (d) (1*2,3*2,2*2)	(1)
19.	_____ deals with the protection of an individual's information which is implemented while using the Internet on any computer or personal device. (a) Digital Privacy (b) Digital Agony (c) Digital Secrecy (d) Digital Protection	(1)
Q20 and Q21 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 but 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.	Assertion (A): Whenever we change the value of a variable, we change only the data reference and the data value that it was pointing to still remains there. Reason (R): A variable does not store value itself rather it just points or refers to a data value.	(1)
21.	Assertion (A): Intellectual Property refers to the inventions, literary and artistic expressions, designs and symbols, names and logos. Reason (R): Intellectual Property is legally protected through copyrights.	(1)

SECTION – B

22.	Verify the following using truth table: (i) $X.X=0$ (ii) $X+1=1$ OR Draw a circuit diagram corresponding to the following Boolean expression: $F=(P'.Q+(Q+R'))$	(2)
23.	Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code. STRING "WELCOME" NOTE " " for s in range [0,8]: print (STRING[s]) print s STRING	(2)
24.	You need to store information about various employees in a company, where each employee has a unique ID and a set of attributes (like name, department, and salary). You decide to use a dictionary to manage this data. Can you use a list or a tuple as the key for each employee's record? OR Predict the output and justify your answer: Odd = [1,3,5] print((Odd +[2, 4, 6])[4]) print((Odd +[12, 14, 16]) [4]) - (Odd +[2, 4, 6]) [4])	(2)
25.	Anup always faces problems while solving Boolean expressions. He has been selected for a school's project where he will make a model on Boolean Algebra. Can you help him to prove the following boolean expression for the mentioned project? $A.B+A'.C+B.C=A.B+A'.C$	(2)
26.	Can you demonstrate your proficiency in programming by converting the following while loop into for loop? num=7 while (num<21): print(num*2) num+=3 OR Can you demonstrate your understanding of logic circuit diagram for the following expression? Output= $A'BC+AB'C+ABC'+ABC$	
27.	The following code is having some errors. Underline each error and explain the reason: str="abcdefgh" str[5]="a" print(str) str="Python" print(str) OR What will be the output of the following: s1="helloworldofpython" print(s1[10], s1[11,30], s1[: :-1], find("p"))	(2)
28.	Express the following hexadecimal number into octal number- $(A748)_{16}=(?)_8$	(2)

SECTION – C

29.	Raman wanted to gift his brother a football or a wrist watch. So he searched for many sports items and wrist watches online. But after that every time he goes online, his web browser shows him advertisements about sports items and wrist watches. (A) Why is this happening? (B) How could have Raman avoided them? (C) How can Raman get rid of this now?	(3)
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