

27.06.25 ✓



Delhi Public School, Howrah

PERIODIC TEST I (2025 – 2026)

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)

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 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.	Which is the fastest memory device? (A) RAM (B) Register (C) Blue-ray disc (D) Hard disc	(1)
2.	Which of the following falls under utility software? (A) Backup (B) Web browsers (C) Graphic editing softwares (D) Operating Systems	(1)
3.	_____ is capable of recognizing a pre-specified type of mark made with dark pencil or ink. (A) MICR (B) Barcode reader (C) OMR (D) OCR	(1)
4.	Which of the following is an example of multiple assignment? (A) X=10, Y=20 (B) X, Y = 10, 20 (C) X=10, 20 (D) X=Y	(1)
5.	Python is a case sensitive language. This mean _____ (A) Capital and small letters are same for Python. (B) Python doesn't care about the case of alphabets. (C) Python treats capital and small letters differently. (D) Python automatically capitalizes the small letters.	(1)
6.	Single line comments in Python begin with _____ symbol. (A) " (B) ' (C) % (D) #	(1)
7.	The reserved words used by Python interpreter to recognize the structure of a program is termed as _____. (A) identifiers (B) keywords (C) literals (D) tokens	(1)
8.	Which of the following is an invalid statement? (A) a=b=c=2 (B) a, b, c = 10, 20, 30 (C) a_b_c = 20 (D) a b c = 20, 30, 40	(1)
9.	What output will be produced by the following code? A, B, C, D = 9.2, 2.0, 4, 21 print (A//4) (A) 2.0 (B) 2.3 (C) 16.0 (D) 18.4	(1)

10.	The symbol at the end of a statement that represents starting of a block is _____. (A) semicolon (;) (B) colon (:) (C) hyphen (-) (D) underscore (_)	(1)
11.	The token '\\' when returns a backslash during execution is a type of a/an _____. (A) floor division (B) integer division (C) relational operator (D) escape sequence	(1)
12.	Fill in the blank: In order to make a group of statements part of a block, the statements are made _____ from the left margin below the header statement.	(1)
13.	Answer in one word: The operators 'in' and 'not in' are a type of _____ operator.	(1)
14.	I am a special data type with a single value. I am used to signify the absence of a value/condition which results in a false output. Who am I?	(1)
15.	Write the output of the following code: A, B, C, D = 5, 6, 7, 8 A, B, C, D = B, A, D, C print(A, B, C, D) (A) 8 5 6 7 (B) 8 7 6 5 (C) 5 6 7 8 (D) 6 5 8 7	(1)
16.	Which of the following escape sequence character returns a new linefeed in print statement? (A) \n (B) \nln (C) \t (D) \f	(1)
17.	def triangle(): print(" * ") print(" * * ") print(" * * * ") print(" * * * * ") The above block is an example of- (A) Inbuilt function (B) User defined function (C) Python module (D) Special function	(1)
18.	Find the syntax error and choose the correct option for the following code: code=input("Enter season code") if code = "w" print("Winter") elif code = "r" print("rainy") else print("summer") (A) There is no error in the code (B) Placement of the print statements are not correct (C) Relational operators are ==, block headers are terminated by colon(:) (D) Data type is missing in the input statement	(1)
19.	State whether the following statement is True or False. Rewrite the statement if false. A statement in Python is a keyword which is executed while running a program.	(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) A is True but R is False. (C) Both A and R are true but R is not the correct explanation for A. (D) A is false but R is True.		
20.	Assertion (A): Literals are same as variables. Reason (R): A variable is a label for a location in memory.	(1)
21.	Assertion (A): The conditional flow of control is implemented using if statement. Reason (R): If statement can only be used to execute a single statement or a block of statements if a certain condition is true.	(1)

SECTION – B

22.	What do you understand by the IPO cycle of a computer system?	(2)
23.	Jayant was going through the CPU architecture of a computer system. He came to know that along with the main computer processor comes another processor termed as language processor. He was eager to know its actual use and get a clear idea of the processor organization in a computer system. Name the different types of language processors and explain him the use of such processors.	(2)
24.	(i) Python is an interpreted or interpreter based language. What do you understand by this statement? OR (ii) What is meant by Python programming language being portable?	(2)
25.	Write Python statements that will perform the following operations: i) Assign value 100 to variable 'a' and value 200 to variable 'b'. Print the sum of variables 'a' and 'b' without using any other third variable. ii) Assign value 10 to variables 'm', 'n' and 'p' using a single statement.	(2)
26.	Predict the output of the following Python code: <pre>p = 10 q = 20 p *= q//3 q += p + q**2 print (p, q)</pre>	(2)
27.	(i) Explain the reason behind the following identifiers being invalid: (a) 1st_num (b) total-marks (c) True (d) Serial_no. OR (ii) Identify the type of token for the following: (a) for, while (b) "Class 11", 5 (c) +, //, ** (d) &, ?, #	(2)
28.	(i) Ruhi is processing the code given below. She needs to apply a suitable type casting technique that will return the integer form of the output. <pre>x = 10.5 y = 12.7 print (x * y)</pre> Define explicit type conversion with respect to handling of data types. Rewrite the print() statement that will print the integer form of the sum of the variables x and y using explicit type conversion. OR (ii) <pre>x, y = 2, 4 x, y = y, x if x > y: print ("x is greater") else: print ("y is greater")</pre> Explain the concept of the type of assignment taking place in the first two lines of the code. State the output of the code.	(2)

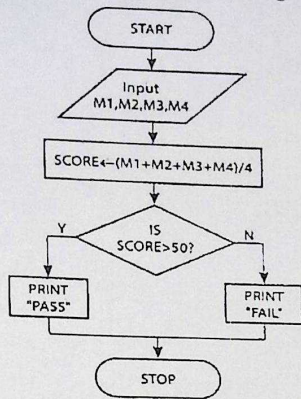
SECTION – C

29.	Find the output of the following code fragments: <pre>x = 3 if x > 2 or x < 5 and x == 6: print ("OK") else: print ("No Output")</pre>	(3)
30.	(i) Write a Python program to print the result of the expression $3^2 + \frac{9^3}{5}$. OR	(3)

	(ii) Write a Python script to accept user input for the variables present in the expression and print the result of the expression $v = u + at$.	
31.	(i) The following program is supposed to print whether a user entered year is a leap year or not. Fill in the blanks and complete the code to get the desirable result. <pre> year = int(input("Enter 4-digit year:")) if (_____): if(_____): print ("Leap year") elif (_____): print("Leap year") else: print("Not a Leap year") </pre> OR (ii) Consider the following code: <pre> x = int(input("Enter a number: ")) if x>3: if x>4: print("a") else: print("b") elif x<2: if (x !=0): print("c") print('d') </pre> What will be the output when the user enters the value as 1?	(3)
32.	(i) In programming, errors are problems in the code that prevent it from running correctly. These can cause the program to crash, behave unexpectedly, or produce incorrect results. Differentiate between Syntax error and Run-time error with appropriate examples in this context. OR (ii) Assignment of values against proper variable s is one of the most important steps of constructing a program. Explain the concept of R-value and L-value with examples regarding the same.	(3)
SECTION – D		
33.	Consider the following code: <pre> a = int(input("Enter an integer: ")) b = int(input("Enter an integer: ")) if a <= 0: b = b + 1 else: a = a + 1 if a > 0 and b > 0: print ("W") elif a > 0: print ("X") if b > 0: print ("Y") else: print ("Z") </pre> What letter(s) will be printed if the user enters 0 for both a and b. Explain your answer.	(4)
34.	What is the difference between else and elif construct of if statement. Explain with a program snippet.	(4)

SECTION - E

35. Consider the flowchart given below:



Study the flowchart and write the equivalent Python program that takes input of marks for four subjects, calculates the score which is the average of the subjects and prints "PASS" if the score is greater than 50 or else prints "FAIL".

36. Redwood Shop deals in apparel and footwear. Write a program to calculate the total selling price after levying of GST. To calculate the net price, Central Government and State Government GST rates as applicable are given below:

Item (Selling Price)	GST Rate (on SP)
Footwear ≤ 500 (per pair)	5%
Footwear ≥ 500 (per pair)	18%
Apparels ≤ 1000 (per piece)	5%
Apparels ≥ 1000 (per piece)	12%

37. (i) Mr. Upendra Awasthi is in a share trading business. He has invested ₹ 545000 in 500 shares of Agro Industries Ltd. And ₹ 357550 in 300 shares of LTP Associates (P) Ltd. Write a program to calculate his average investment cost per share. The program should print the total amount invested, total shares bought and the average investment made per share.

OR

(ii) EX500 is an India-based Cargo company that deals in the export and selling of various goods within the country as well as abroad. To perform business analysis of day-to-day transactions, they have hired you as a programmer to develop a computerized system for the purpose.

Write a Python code that accepts cost of goods sold (cogs), revenue generated (rg), operating costs (oc) and prints gross profit (gp), net profit (np) and net profit percentage (npp).

[Net profit = Revenue – cogs – oc].