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| **FT/CSQP/1123/A 12-JUN-2023** | | | | |
| **FIRST TERM EXAMINATION - (2023-24)** | | | | |
| **SUBJECT: COMPUTER SCIENCE (PYTHON)**  **GRADE: XI** | | | MAX. MARKS: 70TIME: 3 Hrs | |
| *General Instructions:*  * *This question paper contains FIVE sections – A , B, C, D and E.* * *Section A has 18 MCQ questions of 1 mark each.* * *Section B has 7 questions of 2 marks each.* * *Section C has 5 questions of 3 marks each.* * *Section D has 3 questions of 5 marks each.* * *Section E had 2questions of 4 marks each.* * *All programming questions are to be answered using Python Language only.* * *Question paper contains 5 printed pages.* | | | | |
| **SECTION A** | | | | |
| 1. | **Which of the following is an invalid identifier in Python** | | | 1 |
|  | 1. H\_e\_wel\_123 | 1. \_ | |  |
|  | 1. Assert | 1. in | |  |
| 2. | **Evaluate the following expression : 3+4\*2%8+12//6-2%9\*\*2\*\*1** | | | 1 |
|  | 1. 11 | 1. 3 | |  |
|  | 1. 17 | 1. 1 | |  |
| 3. | **Binary equivalent for number 15 is \_\_\_\_\_\_\_\_\_\_.** | | | 1 |
|  | 1. 1110 | 1. 1011 | |  |
|  | 1. 1111 | 1. 1100 | |  |
| 4. | **The ………….statement terminates the execution of the whole program.** | | | 1 |
|  | 1. continue | 1. exit | |  |
|  | 1. break | 1. else | |  |
| 5. | **Write the output of the following code segment :**  for i in range(-1,-6,-5):  print(i\*i) | | | 1 |
|  | 1. 1 | 1. 1 2 | |  |
|  | 1. Error | 1. Infinite loop | |  |
| 6. | **What is the logical expression for the following?**  Either A is greater than B or A is less than C | | | 1 |
|  | 1. A>B or A<C | 1. A>B and A<C | |  |
|  | 1. A>Band C | 1. A>B or C | |  |
| 7. | Which of the following is non volatile memory? | | | 1 |
|  | 1. RAM | 1. ROM | |  |
|  | 1. HARD DISK |  | |  |
| 8. | What is the return type of function id ? | | | 1 |
|  | 1. int | 1. float | |  |
|  | 1. string | 1. dict | |  |
| 9. | What error occurs when you execute?  fruit = mango | | | 1 |
|  | 1. SyntaxError | 1. NameError | |  |
|  | 1. TypeError | 1. ValueError | |  |
| 10. | Which statement is true from the following? | | | 1 |
|  | 1. List is immutable & Tuple is mutable | 1. Both are mutable | |  |
|  | 1. List is mutable & Tuple is immutable | 1. Both are immutable | |  |
| 11. | **Smallest measurement unit of computer memory is?** | | | 1 |
|  | 1. Megabyte | 1. Bit | |  |
|  | 1. Byte | 1. Killo Byte | |  |
| 12. | What is decomposition? | | | 1 |
| 13. | Antivirus software is an example of ? | | | 1 |
|  | 1. Application Software | 1. System Software | |  |
|  | 1. Utility program | 1. Customized software | |  |
| 14. | **Consider the loop given below:** for i in range(10,5,-3):  print(i)  How many will this loop run? | | | 1 |
|  | 1. **3** | 1. **2** | |  |
|  | 1. **1** | 1. **infinite** | |  |
| 15. | **To print a line of text without ending it with a newline, \_\_\_\_\_\_\_\_\_\_\_ argument is used with print( )** | | | 1 |
|  | 1. **next** | 1. **newline** | |  |
|  | 1. **sep** | 1. **end** | |  |
| 16. | **The smallest individual unit in a program** | | | 1 |
|  | 1. **keyword** | 1. **identifier** | |  |
|  | 1. **token** | 1. **literal** | |  |
| 17. | In python, a variable may be assigned a value of one type, and then latee assigned a value of a different type. This concept is known as | | | 1 |
|  | 1. mutability | 1. static typing | |  |
|  | 1. dynamic typing | 1. immutability | |  |
| 18. | 1. Hardware is a set of instructions called programs that the computer uses to carry out tasks while software are all parts of the computer you can see and touch. 2. Main memory holds data and instructions being processed by the computer and is directly accessible by the CPU | | |  |
|  | 1. Both statements are True | 1. Both statements are False | | 1 |
|  | 1. Statement 1 is True and statement 2 is False | 1. Statement 2 is True and statement 1 is False | |  |
| **SECTION B** | | | | |
| 19. | Find error in the following codes(if any) and correct code by rewriting code and underline the correction.  Val = int(input(Value:"))  Adder = 0  for C in range(1,Val,3)             Adder+=C              if C%2=0:                   Print (C\*10)              Else:                  print (C\*)  print (Adder) | | | 2 |
| 20. | Predict the output:  s=5  s1=3  n=12  for i in range(3):  if (n % 4 ==0):  s=s+n  n=n+4  continue  if(n % 7 ==0):  s1=s1+n  n=n+4  print(n)  print(s, end =" ")  print(s1) | | | 2 |
| 21. | Write a python program to calculate area of a triangle after obtaining its three sides (a, b, c) using Herons formula,  s =  s = (a + b + c)/2 | | | 2 |
| 22. | Predict the output:  import math print (math.sqrt (289)) print (math.ceil (78.6)) print (math.floor (98.55)) print (math.pow(3,4)) | | | 2 |
| 23. | Predict the output:  a=(2 + 3) \*\* 3 - 6 / 2  b=(2 + 3) \* 5// 4 + (4 + 6) / 2  c=12 + ( 3 \* 4 - 6 ) / 3  d=12 % 5 \* 3 + (2 \* 6) // 4  print(a, b, c, d) | | | 2 |
| 24. | **Write an algorithm to display the total water bill charges of the month depending upon the number of units consumed by the customer as per the following criteria: • for the first 100 units @ 5 per unit • for next 150 units @ 10 per unit • more than 250 units @ 20 per unit Also add meter charges of 75 per month to calculate the total water bill .** | | | 2 |
| 25. | Write a program display the factors of the accepted number | | | 2 |
| **SECTION C** | | | | |
| 26. | Write a program to accept a year and display if it is a leap year or not. | | | 3 |
| 27. | Write a program that checks in the range 1…100 and prints “Fizz” if the number is multiple of 3 and prints “Buzz” if the number is multiple of 5. It should print “FizzBuzz” if the number is multiple of both 3 and 5. Other numbers are to be printed normally. | | | 3 |
| 28. | Draw a flowchart to accept 3 numbers find the smallest of them. | | | 3 |
| 29. | Explain the Jump statements in python with suitable examples | | | 3 |
| 30. | Write a program to input a number and calculate its double factorial.  (For an even integer n, the double factorial is the product of all even positive integers lass than or equal to n. For an odd integer n, the double factorial is the product of all odd positive integers less than or equal to n) | | | 3 |
| **SECTION D** | | | | |
| 31. | Keshav is looking for his dream job but has some restrictions. He loves Delhi and would take a job there if he is paid over Rs.40,000 a month. He hates Chennai and demands at least Rs. 1,00,000 to work there. In any another location he is willing to work for Rs. 60,000 a month. The following code shows his basic strategy for evaluating a job offer.  Code: pay= \_\_\_\_\_\_\_\_\_  location= \_\_\_\_\_\_\_\_\_  if location == "Mumbai":  print ("I’ll take it!") #Statement 1  elif location == "Chennai":  if pay < 100000:  print ("No way") #Statement 2  else:  print("I am willing!") #Statement 3  elif location == "Delhi" and pay > 40000:  print("I am happy to join") #Statement 4  elif pay > 60000:  print("I accept the offer") #Statement 5  else:  print("No thanks, I can find something better") #Statement 6  On the basis of the above code, show the right statement which will be executed when the following inputs for pay and location are given:   1. Input: location = "Chennai”, pay = 50000 2. Input: location = "Surat" ,pay = 50000 3. Input: location = "Any Other City", pay = 100000 4. Input: location = "Delhi", pay = 500000 5. Input: location = "Mumbai", pay = 65000 | | | 5 |
| 32. | Convert the following into equivalent codes.   1. (84)10 = (?)2 2. (2C9)16 = (?)10 3. (101010)2= (?)10 4. (3674)8 =(?)2 5. (FACE)16=(?)8 | | | 5 |
| 33. | WAP to display a menu as shown below and perform the various operations based on users response.  MAIN MENU  ----------------------  1. Display Perfect No or not  2. Display Composite No or not  3. Exit  (Hint:A perfect number is **positive integer**which is equal to the sum of its positive divisors, excluding the number itself. composite numbers are numbers that have more than two factors.) | | | 5 |
|  | **SECTION E** | | |  |
| 34. | Differentiate:   1. System Software and Application Software 2. Compiler and Interpreter | | | 4 |
| 35. | Write a program to find the lowest and second lowest number from the 10 numbers input | | | 4 |

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