

- (c) 2
(d) 3
- 1-d. What is the value of s[4 :1 :-1]. [CO2] 1
Where s="Python"
(a) pyt
(b) hon
(c) yth
(d) oht
- 1-e. Which keyword is used for function. [CO3] 1
(a) Fun
(b) Define
(c) def
(d) Function
- 1-f. A function is defined within. [CO3] 1
(a) Module
(b) Class
(c) Another function
(d) All of the mentioned
- 1-g. What will be the list comprehension to find the cube for the following: [CO4] 1
Number=[1, 2, 3, 4, 5, 6, 7, 8, 9].
(a) [x**3 for x in Number]
(b) [x^3 for x in Number]
(c) [x**3 in Number]
(d) [x^3 in Number]
- 1-h. Which data structure does not support indexing. [CO4] 1
(a) List
(b) Tuple
(c) Dictionary
(d) Set
- 1-i. _____block contains code which may cause exception. [CO5] 1
(a) try
(b) except
(c) else

(d) finally

- 1-j. When a variable is not define which error is raised by python. [CO5] 1
- (a) ZeroDivisionError
 - (b) NameError
 - (c) ValueError
 - (d) None of the above

2. Attempt all parts:-

- 2.a. What are the rules for naming an identifier. [CO1] 2
- 2.b. Print series 1,2,3,4,6,7,8,10 using continue. [CO2] 2
- 2.c. What is the use of the return statement. [CO3] 2
- 2.d. What is the difference between a tuple and a dictionary. [CO4] 2
- 2.e. Write a short note on finally block with example. [CO5] 2

SECTION B

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3. Answer any five of the following:-

- 3-a. Design a flow-chart to find sum of first n natural numbers. [CO1] 6
- 3-b. Differentiate among Assembler, Compiler and Interpreter. [CO1] 6
- 3-c. Write a Python program to check whether the given number is Armstrong number or not. [CO2] 6
- 3-d. Write a program to decide given number is prime or not.[CO2] 6
- 3.e. Discuss the need and importance of function in python. [CO3] 6
- 3.f. Differentiate between the following methods of list using example: [CO4] 6
- a) append() and extend()
 - b) pop() and remove()
- 3.g. Describe different types of errors in programming language. [CO5] 6

SECTION C

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4. Answer any one of the following:-

- 4-a. Draw a diagram of digital computer and explain its all components in details. 10
(CO1)
- 4-b. Write a python program to illustrate all Bitwise operators. Also, show the expected output.[CO1] 10

5. Answer any one of the following:-

- 5-a. Write a Python program to enter marks of a student in four subjects. Then calculate Total and aggregate ,and display the grade obtained by the students. [CO2] 10

if the student scores greater than 100 %, then the invalid score.

If the student scores an aggregate greater than 75%, then the grade is Distinction.

If aggregate is $60 \leq \text{and} \leq 75$, then the grade is First Division.

If aggregate is $50 \leq \text{and} \leq 60$, then the grade is Second Division.

If aggregate is $40 \leq \text{and} < 50$, then the grade is third Division.

Otherwise the grade is fail.

5-b. Write a Python Programs to print following patterns. [CO2] 10

```
1
1 2 1
1 2 3 2 1
1 2 3 4 3 2 1
1 2 3 4 5 4 3 2 1
```

6. Answer any one of the following:-

6-a. A 4 digit integer is entered through the keyboard. Write a function to calculate the sum of the 4 digit number both without recursion and using recursion.[CO3] 10

6-b. Write short notes on: [CO3] 10
(a.) Keyword Arguments
(b.) Default Arguments
(c.) Lambda functions

7. Answer any one of the following:-

7-a. What is List? Write Python program to sort words in a sentence in decreasing order of their length. Display the sorted words along with their length. [CO4] 10

7-b. Explain all the data types in python with suitable example of each type. [CO4] 10

8. Answer any one of the following:-

8-a. Explain try, except, else and finally block with their syntax and also discuss application of these blocks. [CO5] 10

8-b. A file named DATA.txt contains a series of integer numbers. Write a program to read these numbers then write all "odd" numbers to a file to be called ODD.txt and all "even" numbers to a file to be called EVEN.txt.[CO5] 10