

## MCA Sem.-1 Examination

## (1) Introduction to Python Programming

Time : 3-00 Hours]

January-2025

[Max. Marks : 50

**Instructions:**

- Write both the Sections in the separate answer book.
- Both Sections having equal weightage.
- Draw Diagrams wherever necessary.
- Make Assumptions wherever necessary.

**SECTION – I**

Q.1 Answer the following questions: [09]

- (a) Explain the difference between 'break', 'continue' and 'pass' with example.
- (b) What is recursion? Explain with an example.
- (c) Explain different conditional execution in python with examples.

Q.2 Attempt the following (Any TWO) [08]

- (a) What is function: How do we define a function in python and call that function and return value from the function.
- (b) What is loop? Write syntax of for and while loop along with an example.
- (c) What do you mean by slicing? Explain the concept of slicing on string values with an example.

Q.3 What is the use of Numpy module? Explain different function available in Numpy module and how we can implement array using Numpy module. [08]

**OR**

Q.3 Explain different types of datatypes in python in detail.

**SECTION – II**

Q.4 Answer the following questions: [09]

- (a) Explain different file modes in python.
- (b) What is decorator? Explain with example.
- (c) What is generator? Explain with example.

(P.T.O)

Q.5 **Attempt the following (Any TWO)**

[08]

- (a) Explain the use of assert statement and user defined exception in detail.
- (b) What is the advantage of opening the file using with statement over using open() function? Give an example.
- (c) What is the use of mmap? Explain with example.

Q.6 Explain exception handling in python.

[08]

**OR**

Q.6 **Answer the following Questions:**

- (a) What is use Abstract Class in Python with an example.
- (b) Explain the difference between read() and readlines() with proper example.

**MCA Sem.-1 Examination**  
**(2) Web Application Development**  
**January-2025**

Time : 3-00 Hours]

[Max. Marks : 50

## Instructions:

1. Write each section in separate answer sheet.
2. Numbers to the right indicate full marks of the question.
3. Make appropriate assumption whenever necessary.

**SECTION – I****Q-1 Attempt the following (any five)****10**

1. Which symbol is used to write single line comment and multiline comment in PHP?
2. Differentiate == (==) and === (===) PHP operator with appropriate example.
3. How associative array is differ from index array? Write one example to create and display associative array?
4. What do you mean by instantiation? What is stored by a special variable \$this within a class?
5. How by default value pass in a function in PHP? Which symbol is used to pass a value as pass by reference in a function in PHP?
6. what will be the output of below code ?

```
<?php
$data="98.8 degrees";
(double)$data;
(int)$data;
(string)$data;
echo $data;
?>
```

- a. 98
  - b. 98.8
  - c. 98.8 degrees
  - d. degrees
7. What is difference between require() and include() ? What is difference between require() and require\_once() ?

**Q-2 Attempt the following (any three)****15**

1. What are the PHP's strength? Explain any three PHP's strength compare to its competitors.
2. List and explain any five built-in methods of Exception class.
3. What is interface? When you have to use interface? Are all the methods in interface public? Are all the methods in interface static? Can interface define class constants that are available to any class that implements the interface?
4. Explain following functions with example:  
i. addslashes ii. ucwords iii. explode iv. implode v. strlen

**SECTION - II****Q-3 Attempt the following (any three)**

15

1. Explain the Web Database Architecture with diagram and stages.
2. Write full-form of POSIX. Write the meaning of following special characters used in POSIX:  
i. \ ii. \$ iii. + iv. \*
3. What do you mean by time stamp? What is unix epoch? What date range is stored using the time stamp? What is Y2K38 problem? What is one way to solve Y2K38 problem?
4. List and explain any five File Modes with their name and use.
5. Why session tracking is difficult with PHP? Explain with appropriate diagram: How PHP keeps track of Session?

**Q-4 Attempt the following (any five)**

10

1. What are the four levels of privilege available in MySQL?
  2. Write only name of various type of extension for working with MySQL API?
  3. Write only name of any four storage engines supported by MySQL.
  4. What is collation in mysql? What is the by default collation when you create table in mysql?
  5. Differentiate Enum and Set data type of MySQL.
  6. Explain with example for MySQL i. column alias ii. table alias
  7. What is the difference between char, varchar and text datatype in MySQL.
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