

**B.C.A Semester - 6 (CBCS) Examination**  
**March/April-2024 (OLD COURSE)**  
**CS-33 PROGRAMMING IN PYTHON(CORE)**

**Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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| Que-1(A) | Attempt following questions.                                                                                                                                                                                                                                                                                 | (04) |
|          | <ol style="list-style-type: none"><li>1. _____ function is used to get value from the user in Python.</li><li>2. _____ keyword is used to define user define function.</li><li>3. Tuple object not modified after defining. (True/False)</li><li>4. _____ function return data type of any object.</li></ol> |      |
| Que-1(B) | Attempt following. (Attempt Any One)                                                                                                                                                                                                                                                                         | (02) |
|          | <ol style="list-style-type: none"><li>1. What is Module?</li><li>2. Explain input( ) function with an example.</li></ol>                                                                                                                                                                                     |      |
| Que-1(C) | Attempt following. (Attempt Any One)                                                                                                                                                                                                                                                                         | (03) |
|          | <ol style="list-style-type: none"><li>1. Explain recursion with an example.</li><li>2. Explain the features of python in detail.</li></ol>                                                                                                                                                                   |      |
| Que-1(D) | Attempt following. (Attempt Any One)                                                                                                                                                                                                                                                                         | (05) |
|          | <ol style="list-style-type: none"><li>1. Explain data types available in Python.</li><li>2. Explain types of iteration available in python.</li></ol>                                                                                                                                                        |      |
| Que-2(A) | Attempt following questions.                                                                                                                                                                                                                                                                                 | (04) |
|          | <ol style="list-style-type: none"><li>1. _____ method define constructor within class.</li><li>2. Class method always pass _____ parameter at first.</li><li>3. When is the finally block executed?</li><li>4. __a is a private variable within python. (True / False)</li></ol>                             |      |
| Que-2(B) | Attempt following. (Attempt Any One)                                                                                                                                                                                                                                                                         | (02) |
|          | <ol style="list-style-type: none"><li>1. Explain Assertions with an example.</li><li>2. What is Exception?</li></ol>                                                                                                                                                                                         |      |
| Que-2(C) | Attempt following. (Attempt Any One)                                                                                                                                                                                                                                                                         | (03) |
|          | <ol style="list-style-type: none"><li>1. Explain inheritance with an example.</li><li>2. Explain hashtable with an example.</li></ol>                                                                                                                                                                        |      |
| Que-2(D) | Attempt following. (Attempt Any One)                                                                                                                                                                                                                                                                         | (05) |
|          | <ol style="list-style-type: none"><li>1. Explain sequential search with an example.</li><li>2. Explain selection sort with an example.</li></ol>                                                                                                                                                             |      |
| Que-3(A) | Attempt following questions.                                                                                                                                                                                                                                                                                 | (04) |
|          | <ol style="list-style-type: none"><li>1. _____ library is used for plotting in Python language.</li><li>2. Which method is used to display plot in Python.</li><li>3. _____ method save plot in given file.</li><li>4. What is pylab?</li></ol>                                                              |      |
| Que-3(B) | Attempt following. (Attempt Any One)                                                                                                                                                                                                                                                                         | (02) |
|          | <ol style="list-style-type: none"><li>1. List out the markers available in plots.</li><li>2. Explain title( ), xlim( ) and ylim( ) method with example.</li></ol>                                                                                                                                            |      |
| Que-3(C) | Attempt following. (Attempt Any One)                                                                                                                                                                                                                                                                         | (03) |
|          | <ol style="list-style-type: none"><li>1. Explain Fibonacci sequence revisited with example.</li><li>2. Explain divide and conquer in dynamic programming.</li></ol>                                                                                                                                          |      |

- Que-3(D) Attempt following. (Attempt Any One) (05)
1. What is Mortgage? Write a code to calculate Mortgage with Fixed Rate.
  2. Explain Knapsack 0/1 problem with example.
- Que-4(A) Attempt following questions. (04)
1. \_\_\_\_\_library is required to implement regular expression in python.
  2. CSV stands for \_\_\_\_\_.
  3. JSON stands for \_\_\_\_\_.
  4. XML stands for \_\_\_\_\_.
- Que-4(B) Attempt following. (Attempt Any One) (02)
1. Explain search( ) function with suitable example.
  2. Explain match( ) function with suitable example.
- Que-4(C) Attempt following. (AttemptAny One) (03)
1. Explain special characters which are used in Python Regular Expression.
  2. Write code to read CSV file.
- Que-4(D) Attempt following. (Attempt Any One) (05)
1. Write a program to modifying the XML file.
  2. Write a program to read JSON file data and display it.
- Que-5(A) Attempt following questions. (04)
1. \_\_\_\_\_ package is used to read and write the csv file.
  2. When the labels are numeric, the problem is called a \_\_\_\_\_ problem.
  3. What is BigData?
  4. What is Data Set?
- Que-5(B) Attempt following. (Attempt Any One) (02)
1. What is Machine Learning?
  2. What is Complexity?
- Que-5(C) Attempt following. (Attempt Any One) (03)
1. Explain Balancing performance with suitable example.
  2. How to use Correlation Heat Map for Regression.
- Que-5(D) Attempt following. (Attempt Any One) (05)
1. Explain Data Analytics and Data Exploration with suitable example.
  2. Difference between a Simple Model and a Complex Model.

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