B. C. A. (Sem. VI) (CBCS) (WEF-2016) Examination
July - 2021
CS-33 : Programming in Python

Time : $2\frac{1}{2}$ Hours]   [Total Marks : **70**

1   (A) Fill in the blanks.   **4**
-     (1) IDLE stands for _____.
-     (2) _____ is a special character, which is used to represent whitespace characters
-     (3) _____ is a special character, which is used for new line
-     (4) The _____ symbol is a shell prompt in Python.
- (B) Explain LIST data type in Python.   **2**
- (C) Explain Modules in Python.   **3**
- (D) Explain Branching statements in Python.   **5**

2   (A) Fill in the blanks.   **4**
-     (1) The _____ symbol is to set comments in Python.
-     (2) Python commands are evaluated/executed in _____.
-     (3) _____ method writes any string to an open file in Python.
-     (4) _____ method reads string from an open file in Python.
- (B) Explain TUPLE data type in Python.   **2**
- (C) Explain Recursion in Python.   **3**
- (D) Explain Iteration statements in Python.   **5**

3   (A) Fill in the blanks.   **4**
-     (1) In Python, exceptions can be handled using a _____ statement.
-     (2) _____ exception catches all exceptions in Python.
-     (3) _____ statement forces exception to occur in Python.

     (4) _____ error is raised when division or modulo by zero takes place for all numeric types.

  (B) Explain Class in Python.   **2**

  (C) Explain Assertions in Python.   **3**

  (D) Explain Handling exceptions in Python.   **5**

4   (A) Fill in the blanks.   **4**

     (1) ADT Stands for _____.

     (2) _____ error is raised when a calculation exceeds maximum limit for a numeric type.

     (3) _____ error is raised when an import statement fails.

     (4) _____ has a brief description about the class.

  (B) Explain Bubble Sort in Python.   **2**

  (C) Explain Inheritance in Python.   **3**

  (D) Explain Linear Search and Interpolation Search in Python.   **5**

5   (A) Fill in the blanks.   **4**

     (1) Knapsack problem is also known as _____ problem.

     (2) PyLab is embedded with _____ module of Python.

     (3) _____ method displays the graphical window on the computer screen.

     (4) Dynamic Programming is mainly an optimization over plain _____.

  (B) Explain figure () function in Python.   **2**

  (C) Explain Fibonacci sequence.   **3**

  (D) Explain 0/1 Knapsack Problem in Python.   **5**

6   (A) Fill in the blanks.   **4**

     (1) When stores PyLab Figure, Default extension _____.

     (2) MATLAB Stands for _____.

     (3) _____ is a Python module that provides tools for scientific computing.

     (4) Dynamic Programming was developed by _____.

  (B) Explain plot ( ) function in Python.   **2**

  (C) Explain title, xlabel and ylabel in pylab.   **3**

  (D) Explain Plotting Mortgages in Python.   **5**

7 (A) Fill in the blanks. 4
    (1) RegEx stands for _____.
    (2) JSON stands for _____.
    (3) Notation _____ is used to match start of string.
    (4) Notation _____ is used to match end of string.
  (B) Explain Memoization in python. 2
  (C) Differentiate: search () VS findall () in Python. 3
  (D) Explain groups () and groupdict () with example. 5

8 (A) Fill in the blanks. 4
    (1) In Python, regular expressions are supported by the _____ module.
    (2) A _____ is a sequence of characters that forms a search pattern.
    (3) _____ function returns string with backslash for all non alphanumeric characters.
    (4) CSV stands for _____.
  (B) Explain json. dumps (object) 2
  (C) Explain split () and subn () function in Python. 3
  (D) Explain finditer () and expand() with example. 5

9 (A) Fill in the blanks. 4
    (1) ROC Stands for _____.
    (2) MSE stands for _____.
    (3) AUC Stands for _____.
    (4) _____ is informative tags to subsets of data.
  (B) Explain Head () function in Python. 2
  (C) Differentiate: Simple Model VS Complex Model. 3
  (D) Explain Predictive Model Building stages. 5

10 (A) Fill in the blanks. 4
    (1) _____ is the process of exploring and analyzing large datasets to make predictions and boost data-driven decision making.
    (2) RMSE stands for _____.
    (3) ROC Stands for _____.
    (4) MAE stands for _____.
  (B) Explain Tail () function in Python. 2
  (C) Differentiate: Big Data VS Large Data in Python. 3
  (D) Explain Training Data in Data Analytics in Python. 5