



**BBM-003-1036003**

Seat No. \_\_\_\_\_

**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) \_\_\_\_\_ stores PyLab Figure, Default extension \_\_\_\_\_.
- (2) MATLABStands 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
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