Seat No.
01540

BACHELOR OF COMPUTER APPLICATION Examination

BCA SEMESTER-5 NOVEMBER 2025 (NEP) NOVEMBER - 2025

CS –30: PROGRAMMING IN PYTHON

Faculty Code : 003

Subject Code : 23SI-BCAP-MA-05-12001

Time : 2 Hours] **[Total Marks : 50**

Q.1 (A) Attempt the following. 3

(1) What is the output of 50/20 and 50//20?

(2) What is the output of type('python')?

(3) Python commands are evaluated/executed in _____.

Q.1 (B) Attempt any one of the following. 2

(1) Explain tuple with example.

(2) Explain list with example.

Q.1 (C) Atempt any one of the following. 5

(1) Explain Dictionary in python with example.

(2) Explain function and scoping with suitable example.

Q.2 (A) Attempt the following. 3

(1) Define: ADT in python.

(2) _____ statement forces exception to occur.

(3) Partition and exchange sort is _____.

Q.2 (B) Attempt any one of the following. 2

(1) Explain self in python with example.

(2) Explain assertion with example.

Q.2 (C) Attempt any one of the following. 5

(1) Explain Selection sort with example.

(2) Explain Bubble sort with example.

Q.3 (A) Attempt the following. 3

(1) Dynamic programming is mainly an optimization over plain _____

(2) You are given a knapsack that can carry a maximum weight of 60. There are 4 items with weights {20, 30, 40, 70} and values {100, 80, 90, 200}. What is the maximum value of the items you can carry using the knapsack?

(3) _____ function is used to save a plot as a PNG file in PyLab.

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Q.3 (B) Attempt any one of the following. 2

(1) Explain legend() and show() function.

(2) Explain Memoization in python.

Q.3 (C) Attempt any one of the following. 5

(1) Explain Plotting Mortgages with example.

(2) Explain divide and conquer in detail.

Q.4 (A) Attempt the following. 3

(1) TCL stands for _____.

(2) The _____ protocol is used to send email over the internet.

(3) Define: IP address.

Q.4 (B) Attempt any one of the following. 2

(1) What is an entry field?

(2) Explain widget attributes.

Q.4 (C) Attempt any one of the following. 5

(1) Explain UDP Server and UDP Client with example.

(2) Write a python program to download a web page from Internet.

Q.5 (A) Attempt the following. 3

(1) List out connection() function parameters.

(2) The _____ method of the cursor class is used to fetch only one row from the result set of a query.

(3) Define: MySQL database.

Q.5 (B) Attempt any one of the following. 2

(1) Write a python code to Retrieving All Rows from a Table.

(1) Write a python code to Updating Rows in a Table.

Q.5 (C) Attempt any one of the following. 5

(1) Write a python code to creating Python database and book table like book_id, book_name, author, year and price through python.

(2) Write a python code to read book name from the user and update that record otherwise give message "book name is not available, try with another book name".

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