

| Branch/Semester      | B.Tech CSE (AI & ML) / Semester I     |
|----------------------|---------------------------------------|
| Subject Name:        | Computer Programming                  |
| <b>Subject Code:</b> | 01CE2101                              |
| Assignment:          | Practice Questions (Pattern Printing) |
| Date:                | 27 <sup>th</sup> August 2025          |
| Faculty Name:        | Prof. Abhishek Chauhan                |

| Sr. | Question   | CO  | BL  |
|-----|--|-----|-----|
| 1   | Print a right-angled triangle of stars.                  | CO2 | BL1 |
|     | *  |     |     |
|     | **   |     |     |
|     | ***  |     |     |
|     | ****   |     |     |
|     | ****   |     |     |
|     |  |     |     |
| 2   | Print an inverted right-angled triangle of stars.  ***** | CO2 | BL1 |
|     | ****   |     |     |
|     | ***  |     |     |
|     | **   |     |     |
|     | *  |     |     |
|     |  |     |     |
| 3   | Print a square of stars.                                 | CO2 | BL1 |
|     | ****   |     |     |
|     | ****   |     |     |
|     | ****   |     |     |
|     | ****   |     |     |
|     | ****   |     |     |
|     |  |     |     |
|     |  |     |     |
|     |  |     |     |

|   |   | COO | DIO |
|---|---|-----|-----|
| 4 | Print a hollow square of stars.                                   | CO2 | BL2 |
|   | ****  |     |     |
|   | * *   |     |     |
|   | * *   |     |     |
|   | * *   |     |     |
|   | ****  |     |     |
|   |   |     |     |
| 5 | Print a pyramid of stars.   | CO2 | BL2 |
|   | *   |     |     |
|   | ***   |     |     |
|   | ****  |     |     |
|   |   |     |     |
|   | *****   |     |     |
|   | *****   |     |     |
|   |   |     |     |
| 6 | Print an inverted pyramid of stars.                               | CO2 | BL2 |
|   | ******  |     |     |
|   | *****   |     |     |
|   | ****  |     |     |
|   | ***   |     |     |
|   | *   |     |     |
|   |   |     |     |
| 7 | Print a right-angled triangle of numbers (1, 12, 123)             | CO2 | BL3 |
|   | 1   |     |     |
|   | 12  |     |     |
|   |   |     |     |
|   | 123   |     |     |
|   | 1234  |     |     |
|   | 12345   |     |     |
|   |   | _   |     |
| 8 | Print a right-angled triangle with repeating numbers (1, 22, 333) | CO2 | BL3 |
|   | 1   |     |     |
|   | 22  |     |     |
|   | 333   |     |     |
|   | 4444  |     |     |
|   | 55555   |     |     |
|   |   |     |     |
|   |   |     |     |
|   |   |     |     |
|   |   |     |     |
|   |   |     |     |
|   |   |     |     |

| 9  | Distribution of the second second            | CO2 | BL3 |
|----|--|-----|-----|
|    | Print Floyd's Triangle (continuous numbers). | 002 | DLS |
|    | 1  |     |     |
|    | 2 3  |     |     |
|    | 456  |     |     |
|    | 7 8 9 10                                     |     |     |
|    |  |     |     |
| 10 | Print a triangle with letters (A, AB, ABC)   | CO2 | BL3 |
|    | A  |     |     |
|    | AB   |     |     |
|    | ABC  |     |     |
|    | ABCD   |     |     |
|    |  |     |     |
|    | ABCDE  |     |     |
| 11 |  | CO2 | BL4 |
| 11 | Print a diamond pattern of stars.            | CO2 | BL4 |
|    | *  |     |     |
|    | ***  |     |     |
|    | ****   |     |     |
|    | *****  |     |     |
|    | ******                                       |     |     |
|    | *****  |     |     |
|    | ****   |     |     |
|    | ***  |     |     |
|    | *  |     |     |
|    |  |     |     |
| 12 | D. t. d. a. la. II.                          | CO2 | BL4 |
| 12 | Print a hollow pyramid pattern.              | COZ | DLT |
|    | *  |     |     |
|    | * *  |     |     |
|    | * *  |     |     |
|    | * *  |     |     |
|    | *****  |     |     |
|    |  |     |     |
| 13 | Print a number diamond pattern.              | CO2 | BL5 |
|    | 1  |     |     |
|    | 121  |     |     |
|    | 12321  |     |     |
|    | 1234321                                      |     |     |
|    | 123454321                                    |     |     |
|    |  |     |     |
|    |  |     |     |
|    |  |     |     |