

**Government College of Engineering, Amravati**  
(An Autonomous Institute of Government of Maharashtra)

**I Sem.B. Tech. (All Branch)**

**Winter – 2018**

**Course Code: CSU101**

**Course Name: Computer Programming**

**Time: 2 Hrs. 30 Min.**

**Max. Marks: 60**

**Instructions to Candidate**

- 1) All questions are compulsory.
- 2) Assume suitable data wherever necessary and clearly state the assumptions made.
- 3) Diagrams/sketches should be given wherever necessary.
- 4) Use of logarithmic table, drawing instruments and non-programmable calculators is permitted.
- 5) Figures to the right indicate full marks.

**1. Solve: (any two)**

- |    |  |          |
|----|--|----------|
| a) | Describe the main features of C language with examples.  | <b>6</b> |
| b) | Differentiate among compiler, interpreter and assembler. | <b>6</b> |
| c) | Explain type conversion in C with example.               | <b>6</b> |

**2. Solve: (any two)**

- a) Define operators in C. What is the role of operator in C? 6
- b) Write a program to print reverse of a number 6
- c) What is function? List the advantages of the functions? 6

**3. Solve**

- a) Write short notes on:
    - a) Passing arrays as arguments 6
    - b) Passing array within structure
- [OR]**
- b) What are register variables? What is the advantage of using register variables? 6
  - c) Explain the syntax & usage of getchar() & putchar() with example 6

**4. Solve**

- a) Define structure and explain how it differs from other data types. 6
- b) How do you use a pointer to a function? 6

**5. Solve**

- a) Write a program to read text file and to count the no of uppercase letters in a given file. 6
- b) What are the different types of operating modes of files? Explain with an example. 6