

B.E - Bachelor of Engineering (CBCS Pattern) Second Semester  
**2BEAB04 - Programming In C**

P. Pages : 2

Time : Three Hours



**GUG/W/18/11474**

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
  2. Due credit will be given to neatness and adequate dimensions.
  3. Assume suitable data wherever necessary.

1. a) Write short note on : 8  
i) Global variables  
ii) Local variables  
Also write example of each.
- b) Explain in detail header file. Give advantage of header file. Also explain the use of `scanf( )`, `printf( )`, `clrscr( )` and `getch( )` 8

**OR**

2. a) Describe history of C Programming. What are the features of C language. 8  
b) Explain the rules for defining a variables. Also explain constants, keywords. 8
3. a) Define data type. Describe following data types with suitable programming examples 8  
i) Integer ii) Character  
iii) float iv) double
- b) Describe the following with example 8  
i) `# define` ii) `# include`

**OR**

4. a) Explain different arithmetic operators in C with example. 8  
b) Describe conditional statements with example (if, if-else, nested if-else) 8
5. a) Write the syntax of while and do-while loops. Illustrate giving examples. 8  
b) Describe "for loop". Write and C program using for loop. 8

**OR**

6. a) Describe functions using pass by value with example. 8  
b) What is recursion ? Explain recursion with example. 8
7. a) Describe storage classes in C. 8

- b) Write a program to illustrate the sum of elements using array. Take five elements in array. 8

**OR**

8. a) Write a program to display information book (book-name, book-ID, author) of 3 books using structures in C. 8

- b) Explain in detail 1D and 2D arrays. Draw memory representation of 1D and 2D array. 8

9. a) Describe following C functions with example of each 4x3=  
i) strcpy 12 ii) strcat  
iii) strstr 12 iv) strlen

- b) Write a C program to find length of string. 4

**OR**

10. a) Describe and define strings. Give examples. 8

- b) Write a C program to find the count of number of vowel and consonants in a string. 8

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