B.E. Information Technology Third Semester
IT302 - Advanced C Programming & Logic Design

P. Pages : 2

Time : Three Hours

GUG/W/18/1504

Max. Marks : 80

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Notes : 1. Same answer book must be used for all questions.
2. All questions carry marks as indicated.
3. Due credit will be given to neatness and adequate dimensions.
4. Assume suitable data wherever necessary.

1. a) Write a C code to check number entered is prime or not? Explain logical analysis? **8**

b) Explain what is pseudocode? Write a pseudocode to calculate factorial of a number along with usual C code? **8**

OR

2. a) Write a C program to find sum of all digits of a four digit number? **8**

b) Write a C program to check number entered through keyboard is prime or not? Draw a suitable flowchart? **8**

3. a) Write a C program to check number entered is palindrome or not? **8**

b) Write a C program to calculate sum of logarithmic series? **8**

OR

4. a) Write C program for the following menu **8**
1) Even or odd   2) Prime or not
3) Exit

b) What are jumping statements? Write a C program for each of them? **8**

5. a) Find the GCD of two numbers using Euclid's algorithm? Provide mathematical explanation? **8**

b) Explain all the types of function calling mechanism? **8**

OR

6. a) What is recursive function? Write a C program to find factorial of a number by recursion? **8**

b) Write a function to calculate sum of sine series upto 10 terms? **8**

7. a) Write a program in C to search an element by linear search also draw the flowchart? **8**

b) Write a user define function to reverse a string? **8**

OR

8. a) Write a program in C to check string is palindrome or not? **8**

b) Explain what is binary search? Write a C code to search element by binary search? **8**

9. a) Define structure? Display the information of 100 student by array of structure? **8**

b) Write a C program to copy the content of one file into another? **8**

<div align="center">**OR**</div>

10. a) Write any program in C on files to demonstrate command line arguments? **8**

b) Differentiate between structure and union provide one example of each? **8**

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