MAHATMA GANDHI UNIVERSITY M.C.A DEGREE EXAMINATION MODEL QUESTION PAPER

(2011 Revised Syllabi) First Semester

MCA 105 - STRUCTURED PROGRAMMING IN C

Time: Three Hours Maximum: 75 Marks

Part A

Answer any ten questions. Each question carries 3 marks.

- 1. Define Algorithm with example.
- 2. Distinguish between keywords and identifiers?
- 3. What is meant by type conversion?
- 4. What is comma operator?
- 5. What is the importance of break and continue?
- 6. Explain function prototype.
- 7. What are the rules for using register variables?
- 8. What are self referential structures?
- 9. What are pre-processor directives?
- 10. What is recursion?
- 11. What is union?
- 12. What are command line arguments?

 $(10 \times 3 = 30 \text{ marks})$

Part B

All questions carry equal marks.

13. a) Explain the basic structure of a C program and data types in C.

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- b) What is structured programming? Discuss its advantages.
- 14. a) What are the commonly used I/O functions in C?

Or

- b) Explain the different operators in C.
- 15. a) What is a character array? Explain the various string handling functions

Or

- b) Write a program to copy one file to another. Specify the filenames at command line.
- 16. a) Explain how dynamic memory allocation is done in C. Discuss the operations on pointers.

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- b) Write a program using structures to count the total number of days elapsed between two given dates.
- 17. a) What is a macro? Explain with suitable examples.

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b) Write a program to sort a list of strings using array of pointers. Explain the bitwise operations in C.

 $(5 \times 9 = 45 \text{ marks})$