Reg. No.									

MANIPAL UNIVERSITY

FIRST SEMESTER MSc. INFORMATION SCIENCE DEGREE EXAMINATION – NOVEMBER 2015

SUBJECT: MIS 501 – LINUX AND C PROGRAMMING

Wednesday, November 18, 2015

Time: 10:00 – 13:00 Hrs. Max. Marks: 100

1. With an example explain the C Compilation Model with a neat diagram.

(10 marks)

2. Explain non iterative conditional statements in C with an example each.

(10 marks)

3. What are arrays? Write a program to search an element using Binary Search Algorithm.

(4+6 = 10 marks)

4. Explain, with simple code snippets, the dynamic memory management functions: ***malloc()***, ***calloc()***, ***realloc()***, ***free()***.

(2½ marks × 4 = 10 marks)

5. What are functions? List advantages of functions. With example show how to pass arguments to functions.

(2+2+6 = 10 marks)

6. Answer the following with respect to functions and Illustrate with examples:

6A. Pass by value
6B. Pass by reference

(5+5 = 10 marks)

7. Write short notes on automatic variables, static variables and register variables. Illustrate the importance of these variables with examples.

(10 marks)

8. Write a program in C to copy the content of one file to another file with appropriate comments.

(10 marks)

9. Explain the following command with an example each:

9A. Chmod
9B. mkdir
9C. grep
9D. ps

(2½ marks × 4 = 10 marks)

10. Explain Decision making constructs available in shell programming.

(10 marks)