

Roll No.

24006

**B. Tech. 2nd Semester (Common for all
Branches)**

Examination – May, 2017

**FUNDAMENTALS OF COMPUTER & PROGRAMMING
IN 'C'**

Paper : CSE-101-F

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Section. Question No. 1 is *compulsory*. All questions carry equal marks.

1. (a) What are the unique features of Linux ? $2 \times 10 = 10$
- (b) What is URL ? What is its relevance to internet ?
- (c) Code written in Machine Language is efficient and fast to execute, Comment.
- (d) Briefly describe that how Array can be passed to the function.

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- (e) What is the difference between Logical AND and Bitwise AND ?
- (f) Why header file is included in C programming ?
- (g) Why do we use signed and unsigned char ?
- (h) Describe any method to check for EOF when reading a file.
- (i) Write a short program on nested structures.
- (j) What is the role played by Modem in Networking ?

SECTION - A

- 2. (a) Write the functions of an operating system. Differentiate between internal and external DOS commands. 10
- (b) Explain in detail about multiprogramming, multiprocess systems, timesharing and real time systems. 10
- 3. (a) Explain with the help of diagram that how RAM, ROM and cache interact with each other. Also explain the importance of system bus and main memory in a computer. 15
- (b) Explain the working of Magnetic Disk. 5

SECTION - B

- 4. (a) What are the advantages of Networking ? Also explain different devices used for Networking. 15
- (b) In what situations must the network have a gateway ? 5

- 5. (a) Compare OSI model with TCP/IP model. 10
- (b) Explain the term Programming Language. Give certain examples of such languages. 10

SECTION - C

- 6. (a) Write a program to calculate the total number of elements in a multidimensional array ? 8
- (b) What are conditional operators ? Give its syntax and application with an example. Why the expressions in the conditional operator are called ternary ? 12
- 7. (a) Why the parameters given within a function prototype are called "dummy" parameters. 6
- (b) Write about formatted and unformatted input/output functions in 'C'. 7
- (c) Explain logical and bit operators in 'C' with examples. 7

SECTION - D

- 8. (a) What are pointers to functions ? Explain with example. 5
- (b) Write short notes on the following : i) malloc () and calloc () functions. 5
- (c) Write a program in 'C' to store the roll no. and marks of 5 subjects in a file. Read the contents of file and display the roll no. and total marks obtained by each student in a class. 10
- 9. (a) Write a 'C' program to swap two numbers using call by pointers method. 8
- (b) Explain the concept of Pointers. Also explain operations on pointers and array of pointers. 12