

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID: 199225

Roll No.

B.TECH.

Theory Examination (Semester-II) 2015-16

COMPUTER SYSTEM & PROGRAMMING IN C

Time : 3 Hours

Max. Marks : 100

Note: Attempt questions from all sections as per directions.

Section-A

Attempt all parts of this section. Answer in brief. (2 × 10 = 20)

1. (a) Give the layout of a typical C program.
- (b) What do you mean by Algorithm?
- (c) What are the various components of Operating system?
- (d) Convert the octal number 2354 to equivalent hexadecimal number.
- (e) Write a short note on Android Operating system.

- (f) Give the architecture of UNIX.
- (g) Differentiate between RAM and ROM.
- (h) What do you mean by Software?
- (i) Write a short note on structured programming.
- (j) Define storage class in 'C'.

Section-B

2. Attempt any five questions from this section. (10 × 5 = 50)

- (a) What is special about void pointer?
- (b) What do you mean by parameter passing mechanism?
- (c) Write a program in C to print the following pattern:

```

A B C D E F G F E D C B A
A B C D E F   F E D C B A
A B C D E     E D C B A
A B C D       D C B A
A B C         C B A
A B          B A
A            A

```

- (d) Write a program to check whether the given character is in upper case, lower case or non alphabetic character.
- (e) What are the disadvantages of if-else-if ladder?
- (f) What are the principles of recursion? Explain in detail.
- (g) Describe the relation between structures and pointers.
- (h) What are the enumerated data types? Explain in detail.

Section-C

Attempt any two questions from this section. (15×2 = 30)

- 3. What are pre-processor directives? Explain any three of them.
- 4. (i) Explain loading and linking of a program in detail.
(ii) Write a program in 'C' that will read a positive number from the keyboard and print it in reverse order.
Ex: 24578 output: 87542*
- 5. Suppose a file contains students records with each record containing name and age of a student. Write a 'C' program to read these records and display them in sorted order by name.