

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

PAPER ID : 1115

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

B.Tech.

(SEM. I) ODD SEMESTER THEORY

EXAMINATION 2013-14

COMPUTER PROGRAMMING

Time : 3 Hours

Total Marks : 100

Note :- (i) There are **three** Sections. Section A carries **20** marks, Section B carries **30** marks and Section C carries **50** marks.

(ii) Attempt all questions. Marks are indicated against each question.

(iii) Assume suitable data, wherever necessary.

SECTION-A

1. Attempt all parts : **(2×10=20)**
- (a) Write in brief about the components of Central Processing Unit of a Computer.
- (b) Make the hierarchy of different memories available in a computer.
- (c) Write the difference between while and do while loop.

- (d) Write output of the following :
printf(“%d”, strcmp(“QUIET”, “QUILT”));
- (e) Declare and initialize three dimensional array.
- (f) What do you mean by Operator Precedence ?
- (g) Define double pointer with example.
- (h) Write difference between implicit and explicit type casting.
- (i) Define operating system with its different functions.
- (j) Write difference between compiler and interpreter.

SECTION-B

2. Attempt any three parts : (10×3=30)

- (a) Convert the following :
 - (i) $(FA1.2C)_{16} = (?)_8$
 - (ii) $(756)_{10} = (?)_4$
 - (iii) $(11011.011)_2 = (?)_{16}$
 - (iv) $(574.32)_8 = (?)_2$
- (b) Write difference between structure and array. Write a program in ‘C’ to find the largest element of a 3×3 matrix.
- (c) What are the different types of functions ? Write a program in C to sort list of names of students in an ascending order.
- (d) Define Union. Write a program in C to find the record of a student having maximum marks from the list of 10 records. Each record has roll no, name, class and marks fields.

- (e) Describe various storage classes supported in C, with suitable example.

SECTION-C

3. Attempt any two parts : (5×2=10)

- (a) Define algorithm and make a flow chart to find prime numbers between 101 and 999.
- (b) Write a short note on top-down program development approach.
- (c) Write a program in ‘C’ to print the following pattern :

```

1
2 3
4 5 6
7 8 9 10

```

4. Attempt any two parts : (5×2=10)

- (a) Write a program in C to copy content from one file to another file.
- (b) Write a program in C to reverse a string through pointer.
- (c) Define recursive function. Write a program in C to generate Fibonacci series (0 1 1 2 3 5 8 13 ...) using recursive function.

5. Attempt any two parts : (5×2=10)
- (a) What is the architecture of Linux Operating System ? Discuss.
 - (b) Write a program in C to find the sum of individual digits in a five digit number.
 - (c) Explain the following :
 - (i) Preprocessor
 - (ii) Conditional operators.
6. Attempt any two parts : (5×2=10)
- (a) Write difference between call by value and call by reference with suitable example.
 - (b) Write a program in 'C' to find greatest no. among three numbers using conditional operator.
 - (c) Write a short note on macros with suitable example.
7. Attempt any two parts : (5×2=10)
- (a) Differentiate between nested if and switch statements in 'C' with example.
 - (b) Write a program in 'C' to sort list of 10 integers in an ascending order.
 - (c) Write a program in 'C' to multiply the two matrices of M×N.