Printed Pages : 3

NAG205

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

PAPER ID : 180223

Roll No.

B. Tech.

(SEM. II) THEORY EXAMINATION, 2014-15

FUNDAMENTALS OF COMPUTER PROGRAMMING

Time : **2** Hours]   [Total Marks : **50**

SECTION - A

1   Attempt all questions. All questions carry   2×5=10

     equal marks.

   (a)   Convert the following:

         (i) $(657)_8 = ($ $)_{16}$

         (ii) $(11001001)_2 = ($ $)_{10}$

   (b)   What is a higher level language?

   (c)   What are Logical operators? Enlist them.

   (d)   Explain array representation.

   (e)   What is Insertion sorting method?

SECTION - B

2   Attempt any three questions. All questions carry   **5×3=15** equal marks.

(a)   Draw a Flow chart to find roots of a quadratic equation.

(b)   What are the functions of operating system? Explain.

(c)   Explain with example the method of passing arguments by value.

(d)   Using for loop plot the following figure:

```
*******
 ******
  ****
   ***
    **
     *
```

(e)   What are pointers? How are they declared? What are the benefits of using them?

SECTION - C

3   Attempt all questions. All questions carry   **5×5=25** equal marks :

(a)   (i)   Differentiate between system software and application software.

OR

(ii)   What is a compiler? Name few of them. How are they different from Interpreter?

(b)   (i)   Represent 0.232×10^3 in single precision notation.

OR

(ii) Write short note on Operator precedence and associatively.

(c) (i) What is switch statement? Write a programme to print decimal number entered through console in wards.

OR

(ii) What is Iteration? Explain with example.

(d) (i) Find Greatest Common Divisor (GCD) of two (numbr using Recursion.

OR

(ii) What's the output of the following code?

```
(1)   #include <stdio,h>
(2)   struct temp
(3)   {
(4)   int a;
(5)   } s;
(6)   void func(struct temp)
(7)   {
(8)   s.a =10;
(9)   printf("%d\t", s.a); s
(10) }
(11) main()
(12) {
(13) func(s);
(14) printf("%dot", s.a);
(15) }
```

(e) (i) Explain scope rules in C language.

OR

(ii) How is testing of a software done? Explain.