

Printed Pages : 3



NAG205

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

**PAPER ID : 180223**

Roll No.

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### 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)  $(657)_8 = ( \quad )_{16}$

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

(b) What is a higher level language?

(c) What are Logical operators? Enlist them.

(d) Explain array representation.

(e) What is Insertion sorting method?

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### SECTION - B

2 Attempt any three questions. All questions carry  $5 \times 3 = 15$  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  $5 \times 5 = 25$  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  $0.232 \times 10^3$  in single precision notation.

**OR**

- (ii) Write short note on Operator precedence and associativity.
- (c) (i) What is switch statement? Write a programme to print decimal number entered through console in words.

**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.