

2015

**COMPUTER FUNDAMENTALS &  
PROGRAMMING**

Paper : 1-4

Full Marks : 60

Time : 2½ hours

***The figures in the margin indicate  
full marks for the questions.***

**PART - A**

Answer **any four** from **Part-A**.

1. (a) Define a computer. What are the major components of a computer? 1+3=4
- (b) Define bootstrapping. 3
- (c) What do you mean by algorithm? Why it is important? 3
2. (a) Define number system. What are ASCII and EDCDIC? 1+4=5
- (b) What are keywords and identifiers? Explain with proper example. 3

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- (c) Define L-value. 2
3. (a) What are arithmetic and logical operators? Give example of some binary and unary operator. 5
- (b) Define array. How do we declare an array? Give example. 3
- (c) Define structure. Give example. 2
4. (a) Define functions. What are the roles of printf ( ) and scanf ( ) functions. Define format conversion.  $1+3+2=6$
- (b) Define a pointer. How it is declared? 3
- (c) Define looping. 1
5. (a) What is the main difference between do while and while loop? Explain with example. 4
- (b) What are automatic and external storage classes? 4
- (c) Define Compiler & Assembler. 2
6. (a) Convert the following:  $2 \times 2 = 4$
- (i)  $(223.82)_{10}$  to octal.
- (ii)  $(18.32)_8$  to Hexadecimal.

- (b) Write a program in C to find smallest number among three numbers. 3
- (c) Define string. How it is stored in C? 3
7. (a) What are associativity? Explain the operator precedence.  $2+3=5$
- (b) Distinguish between call by reference and call by values. 3
- (c) What is an user-defined function? 2

#### PART - B

Answer **any four**.  $4 \times 5 = 20$

8. (a) Write a C- program to copy the content of one text file to another.
- (b) Write a program to implement linear search algorithm.
- (c) Write a program to sort elements using bubble sorting.
- (d) Write a program to add *two* matrices.
- (e) Write a program to reverse a digit of an integer.