

Registration No.

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B.E./B.Tech. Degree Examinations, December 2016

First Semester

GE16151 – COMPUTER PROGRAMMING

(Common to all branches)

(Regulation 2016)

QP Code:436752

Time: Three hours

Maximum : 100 marks

Answer **ALL** questions

PART A - (10 X 2 = 20 Marks)

1. Convert the $(756)_{10}$ to octal and hexadecimal.
2. How can you measure the quality of algorithm?
3. Write a C program to implement the expression $((m+n)/(p-m))$, where $m=4$, $n=6$, $p=8$.
4. List various bitwise operators in C.
5. What is an array? What are the classifications of array?
6. How strings are represented in language C.
7. What is recursion?
8. Write the uses of pointers.
9. Give the advantages of unions over structures.
10. List out few storage Classes.

PART B - (5 X16 = 80 Marks)

11. (a) (i) Explain the classification of computers in detail. **(6)**
(ii) Discuss about the basic organization of a computer. **(10)**

(OR)

- (b) (i) Draw a flowchart to find the roots of the quadratic equation. **(8)**
(ii) Write an algorithm to find the largest of three numbers. **(8)**
12. (a) (i) Explain the different data types in C with example. **(8)**
(ii) Write a C program that reads a number and display whether the number is prime or not. **(8)**

(OR)

- (b) Describe the branching and looping statements in C with example. **(16)**
13. (a) (i) Write a C program to do matrix multiplication using array. **(10)**
(ii) Write a C program to arrange an array of numbers in ascending order. **(6)**

(OR)

- (b) (i) Explain the string functions in C with example. **(10)**
(ii) Write a C program to reverse the given string. **(6)**
14. (a) (i) What are the various types of functions in C? Explain with example. **(8)**
(ii) Write a C program to calculate the factorial of a given number using recursive function. **(8)**

(OR)

- (b) (i) Explain about the pointer array in C. **(6)**
(ii) Write a function using pointers to add two matrices and to return the resultant matrix. **(10)**
15. (a) Write a C program that gets and displays the report of 'n' students of their personal and academic details using structure. **(16)**

(OR)

- (b) (i) Explain about the pre-processor directives in detail. **(8)**
(ii) Write a C program to do the employees payroll using union. **(8)**