

Reg. No. :

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**Question Paper Code : 80502**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

First Semester

Civil Engineering

GE 6151 — COMPUTER PROGRAMMING

(Common to all branches)

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. State the components of a computer.
2. Convert the following numbers in one format to other format mentioned :  
 $(0100101000000001)_2 = (x)_{16}$  and  $(E7A9)_{16} = (x)_{10}$
3. What are the data types available in C?
4. Differentiate between While statement from Do... While statement.
5. What is an array? Give the syntax of declaring an array and initializing it.
6. How do you declare strings in 'C'?
7. What are functions in C? How will you define a function in C?
8. What is a Pointer? What are the use of Pointers?
9. How will you define a structure in 'C'? What is the use of it?
10. What is Union in C? How to define a union in C?



PART B — (5 × 16 = 80 marks)

11. (a) Explain about algorithm, pseudocode and flow chart with an example of finding the sum of 'n' number.

Or

- (b) Explain the basic organization of a computer with a neat diagram in detail.

12. (a) Explain about various branching structures and looping structures in C language with example program for each.

Or

- (b) Explain about the managing of input and output operations in 'C'. With a snippet code, explain the syntax of scanf( ), printf( ), gets( ), getchar( ), and getch( ).

13. (a) Explain the concept of arrays in detail with an example program.

Or

- (b) Write a program in C to  
(i) Add and  
(ii) Multiply two given matrices.

14. (a) Explain about pass by value and pass by reference with an example program for each.

Or

- (b) With an example program explain about pointer to an array and array of pointers.

15. (a) (i) Explain about union variable in C with an example program in detail.  
(ii) Write short notes on pre-processor directives.

Or

- (b) Write a program to create students mark processing application using array of structure.