Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 71938

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2017.

First Semester

Mechanical Engineering

GE 6151 — COMPUTER PROGRAMMING

(Common to Mechanical Engineering (Sandwich), Aeronautical Engineering, Agriculture Engineering, Automobile Engineering, Biomedical Engineering, Civil Engineering, Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering, Electronics and Instrumentation Engineering, Environmental Engineering, Geoinformatics Engineering, Industrial Engineering, Industrial Engineering and Management, Instrumentation and Control Engineering, Manufacturing Engineering, Marine Engineering, Materials Science and Engineering, Mechanical and Automation Engineering, Mechatronics Engineering, Medical Electronics Engineering, Metallurgical Engineering, Petrochemical Engineering, Production Engineering, Robotics and Automation Engineering, Biotechnology, Chemical Engineering, Chemical and Electrochemical Engineering, Fashion Technology, Food Technology, Handloom and Textile Technology, Industrial Biotechnology, Information Technology, Leather Technology, Petrochemical Technology, Petroleum Engineering, Pharmaceutical Technology, Plastic Technology, Polymer Technology, Rubber and Plastics Technology, Textile Chemistry, Textile Technology (Fashion Technology), Textile Technology (Textile Chemistry))

(Regulations 2013)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   What is an algorithm?

2.   What is flow chart?

3.   What are the main steps of problem solving?

4.   What are the different types of constants available in C?

5.   List out any four string handling functions.

6. What is an array? How will you create a 2D array?

7. What are the components of a function?

8. What is dynamic memory allocation? What are the various dynamic memory allocation functions?

9. What are storage classes? What are the storage classes available in C?

10. Define pre-processor directives in C.

PART B — (5 × 16 = 80 marks)

11. (a) Explain the various classifications of computers in detail.

Or

(b) Explain the various number systems in detail.

12. (a) Explain various operators in C Language in detail.

Or

(b) Explain various input and output functions of C language in detail.

13. (a) Explain the concept of strings in detail.

Or

(b) (i) Explain sorting of a one dimensional array with example program.

(ii) Write a program to check whether an element in present or not in an array or not using binary search method.

14. (a) Explain the concept of parameter passing by

(i) value and

(ii) reference between functions in detail with example program.

Or

(b) Explain in detail the concept of pointer in C language.

15. (a) Explain various storage classes used in C with example program in detail.

Or

(b) Explain in detail the concept and importance of structures with example program in C language.

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