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| R07 |
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Code: R7100307

B.Tech I Year (R07) Supplementary Examinations, June 2013

COMPUTER PROGRAMMING

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) With an example explain the structure of C program.
(b) Write notes on the following:
 - (i) Type conversions.
 - (ii) Expressions.
 - (iii) Precedence and order of evaluation.
- 2 (a) Distinguish between while and do-while loops. Explain with examples.
(b) Write a C program to check whether a given number is palindrome or not.
- 3 (a) Discuss various storage classes in detail.
(b) Write a brief note on C preprocessor directives.
- 4 (a) Write a C program to find the trace of a matrix.
(b) Discuss the syntax of the dynamic memory management functions. Also discuss the advantages of dynamic memory allocation over static memory allocation.
- 5 (a) Explain the difference between structure and union with examples.
(b) Explain the following terms:
 - (i) Nested structures.
 - (ii) Array of structures.
 - (iii) Bit fields.
- 6 (a) Discuss i/o operations on files.
(b) Illustrate the use of fseek and ftell functions.
- 7 (a) Explain the operations on queues.
(b) With an example explain how bubble sort works.
- 8 (a) What is a binary tree? How is it represented? Explain various traversals on a binary tree.
(b) Discuss the basic operations on graphs.
