



M 23182

Reg. No. :

Name :

**IV Semester B.Tech. Degree (Reg./Sup./Imp. – Including Part Time)
Examination, May 2013
(2007 Admn. Onwards)
PT2K6/2K6 EE/EC/AEI 402 : COMPUTER PROGRAMMING**

Time: 3 Hours

Max. Marks : 100

Instruction : Answer all questions.

- I. a) Write notes syntax rules and comments in C programming with suitable examples. **(8×5=40)**
- b) Write a program that prints a table of trigonometric values for $\sin()$, $\cos()$ and $\tan()$. The angles in your table should go from 0 to 2π in 20 steps.
- c) Write notes on the relationship between arrays and pointers with suitable examples.
- d) Write notes on dynamic memory allocation with suitable examples.
- e) Write notes on the different data types in java with suitable examples.
- f) Write notes on constructors in java with suitable examples.
- g) Write notes on strings and the most commonly used string methods in java with suitable examples.
- h) Write notes on the byte streams with suitable examples.
- II. a) Write notes on the different types of statements available in C with suitable example demonstration for each. **15**
- OR
- b) Write a C program to generate random numbers using functions. Don't use the $\text{rand}()$ function which is in the standard library. **15**
- III. a) Explain in detail the different string related operations and the string handling functions with suitable example programs to demonstrate each of them. **15**
- OR
- b) Explain in detail about the self referential structures and with the help of a program explain how the different types of linked lists are implemented. **15**

P.T.O.



IV. a) Explain in detail with suitable examples on how decision making is done with branching control structures in java. **15**

OR

b) Write the help of a good programming example, explain in detail the polymorphism and the overriding methods. **15**

V. a) With notes on single and multi dimensional arrays. An election is contested by 5 candidates. The candidates are numbered 1 to 5 and the voting is done by marking the candidate number on the ballot paper. Write a java program to read the ballots and count the number of votes casted for each candidate using an array variable 'count'. In case a number read is outside the range 1 to 5, the ballot should be considered as a 'spoilt ballot" and the program should count the number of spoilt ballot. **15**

OR

b) Explain in detail the different file related operations in java with suitable example programs. **15**
