GANPAT UNIVERSITY
B. Tech. Semester: VII Computer Engineering/Information Technology
Regular Examination November-December 2013
2CE701/2IT701: SOFTWARE ENGINEERING

Time: 3 Hours]   [Total Marks: 70

Instructions:

1. Figures to the right indicate full marks
2. Each section should be written in a separate answer book
3. Be precise and to the point in your answer

SECTION-I

Q.1	**Answer the following.**	
(A)	Explain Spiral model with neat and clean diagram.	(6)
(B)	What are the different Phases of Unified Process? Explain each phase in short.	(6)

OR

Q.1	**Answer the following.**	
(A)	What is Waterfall model in software engineering? Write out the reasons for the Failure of Water Fall Model?	(6)
(B)	Define Following terms.	(6)

      1. Software Engineering
      2. Software Development Life Cycle
      3. Stakeholders
      4. Verification
      5. Validation
      6. CASE Tools

Q.2	**Answer the following.**	
(A)	Draw CLD and DFD for Cash Accepting Machine.	(5)
(B)	Write Crucial Steps of Requirement Engineering. Explain about FAST method.	(6)

OR

Q.2	**Answer the following.**	
(A)	Draw CLD and DFD for Railway Reservation System.	(5)
(B)	Explain about different Metrics for Project estimation.	(6)

Q.3	**Answer the following.**	
(A)	Consider a project to develop a text editor. Major modules of project are: 1.Menu Panel (size 9KB) 2. Text editing window (size 5 KB) 3. Short cut keys handler (size 6 KB). Use basic COCOMO to determine Effort, and Duration of the project. If one month cost is $ 12500 then find overall cost for project. (*a1*=2.4, *a2*=1.05, *b1*=2.5, *b2*=0.38)	(6)
(B)	What is SRS? Why SRS is known as black-box specification of the system? What are major issues addressed by SRS?	(6)

Q.4 **Answer the following.** (6)

(A) Explain Functional Requirement and Non Functional Requirement with example of Social Networking.

(B) What is the difference between CPM and PERT Method? Discuss about Minimum Time(MT) and Slack (6)
Time(ST) with reference to CPM.

OR

Q.4 **Answer the following.**

(A) Explain Functional Requirement and Non Functional Requirement with example of Hospital Management (6)
System

(B) Based on following Code, Calculate the Programming Length (Note: Use N = N1 + N2 only), Program (6)
Volume, Potential Minimum Volume, Programming Level, Difficulty, Effort and Development Time.
(Note: S = 18).

```
int f1(int x, int y)
{
    while (x != y){
        if (x>y) then
            x=x-y;
        else y=y-x;
    }
    return x;
}
```

Q.5 **Answer the following.**

(A) Define module coupling and cohesion. Explain different types of coupling and cohesion. (6)

(B) What is CFG? Explain with an example and also find Cyclomatic complexity of that example. (5)

OR

Q.5 **Answer the following.**

(A) Explain Code Walk-through and Code Inspection techniques in short. (6)

(B) Explain Boundary value analysis with small example. (5)

Q.6 **Answer the following.**

(A) Draw the Use case and Class diagram for "ATM System" properly. (6)

(B) Design the Entity Relationship Diagram for Hospital Management System. (6)

End of Paper