

Student Exam No: \_\_\_\_\_

**GANPAT UNIVERSITY**  
**B. TECH. SEMESTER – VI COMPUTER ENGINEERING/INFORMATION TECHNOLOGY**  
**REGULAR EXAMINATION MAY/JUNE - 2012**  
**CE606/IT606: 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 Questions.**

- (A) Explain phase containment of error principle with example [3]
- (B) What is Traditional design approach? Explain it in Brief. [3]
- (C) Explain Iterative waterfall model with some real time IT products examples. [6]

**OR**

**Q-1. Answer the following Questions.**

- (A) Explain about Spiral Model with some real time IT products examples [6]
- (B) Compare all the different lifecycle models. [6]

**Q-2. Answer the following Questions.**

- (A) Discuss about Constructive Cost Model in Brief. [6]
- (B) What is Risk Management? Explain different type of risks with the help of example. [5]

**OR**

**Q-2. Answer the following Questions.**

- (A) What are the characteristics of Good SRS document? Explain all the type of qualities of good SRS. [6]
- (B) What is a good software design? Explain all the type of qualities of good software design. [5]

**Q-3. Answer the following Questions.**

- (A) Assume that the software firm wants to develop a Web browser, software has been estimated to be 32,000 lines of source code. Determine the effort required to develop the software product and the nominal development time? [6]
- (B) List out the important items that a Software Project Management Plan document. [6]

## SECTION – II

Q-4. Answer the following Questions.

- (A) Explain following features of high cohesion and low coupling.  
1) Error Isolation  
2) Scope for reuse  
3) Understandability
- (B) What is Coupling? Explain it in brief with Example.

[6]

OR

Q-4. Answer the following Questions.

- (A) Explain evolutionary model with some real time IT products examples
- (B) What is the difference between White-box testing and Black-box testing? Explain Black-box testing in detail.

[6]

[6]

Q-5. Answer the following Questions.

- (A) For the following given C program draw the Control Flow Graph.

[6]

```
int function ( int z)
{
    While(z!=0)
    {
        If(z>100)
        {
            Printf("value of z is greater than 100");
        }
        Else
        {
            Printf("value is less than 100");
        }
        z --;
    }
    return 0;
}
```

- (B) What is McCabe's Cyclomatic Complexity Metric? Explain it with the help of example
- (C) Give the proper definition of Software Engineering.

[3]

[2]

OR

Q-5. Answer the following Questions.

- (A) Differentiate Unit testing and Integration testing also explain following techniques as well.  
1) Big bang integration technique  
2) Top down integration technique
- (B) Explain Expert judgment Technique.
- (C) What are the Disadvantages of LOC?

[6]

[3]

[2]

Q-6. Answer the following Questions.

- (A) Discuss about following Term:  
1. Alpha testing    2. Beta testing    3. Acceptance Testing.
- (B) What is Software Reliability? Compare the Software vs. Hardware Reliability
- (C) What are the disadvantages of basic COCOMO model?

[6]

[3]

[3]