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- Answer any four parts : (4×5=20)
- Define the term "Software engineering". Explain the major differences between software engineering and other traditional engineering disciplines.
 - What is a flow chart? How is the flow charting techniques useful for software development?
 - What is software metric? How is it different from software measurement?
 - Explain why programs which are developed using evolutionary development are likely to be difficult to maintain?
 - Explain software development life cycle. Discuss various activities during SDLC.

Note: Attempt all questions

[Total Marks : 100

Time : 3 Hours]

ASE Tools.

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B. Tech.
(SEM. VI) THEORY EXAMINATION, 2014-15
SOFTWARE ENGINEERING

Roll No.									
PAPER ID : 110602									
(Following Paper ID and Roll No. to be filled in your Answer Book)									

ECS602



Printed Pages : 4

(2×10=20)

Following are estimated in the
technique:
ation, size
risk management? Explain how
reduction technique when there
reducing a risk?

- (c) For the following 'C' program estimate the Halstead's length and volume measures. Compare Halstead's length and volume measures of size with LOC measure.
 //Program to calculate GCD of two numbers

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

- 4 Answer any two parts : (2×10=20)
- (a) Given software product and its requirement specification document, explain how would you design the system test suit for this software product?
- (b) Short notes on :
- Walkthrough
 - code inspection technique
 - Debugging
- (c) What is difference between coding standards and coding guidelines? Why are these considered important in software development organization? Write down five important coding standards and guidelines that you would recommend.

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- (i) Define the following
- Water fall model
 - Spiral Model

- 2 Answer any four parts : (4×5=20)

- (a) List five desirable characteristics of good SRS document. Discuss the relative advantages of formal and informal requirements specifications.
- (b) Compare ISO and SEI-CMM model.
- (c) Define the following terms: Objects, Message, Abstraction, Class, Inheritance and Polymorphism.
- (d) Discuss the signification and use of requirement engineering. What are problems in formulation of requirement?
- (e) What is meant by "Formal Technical Review"? Should it access both programming style as well as correctness of software? Give reasons.
- (f) Define the decision table. Discuss the difference between decision table and decision tree.

- 3 Answer any two parts. (2×10=20)

- (a) Define software architecture. Explain why it may be necessary to design the system architecture before the specifications written with example. Compare functional oriented and object oriented designs.
- (b) What do you mean by the terms cohesion and coupling in the context of software design? How are these concepts useful in arriving at a good design of a system?

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5 Answer any two parts : (2×10=20)

- (a) Using schematic diagram and suitable example show the order in which the following are estimated in the COCOMO estimation technique:
cost, effort, duration, size
- (b) What do you mean by risk management? Explain how to select the best risk reduction technique when there are many ways of reducing a risk?
- (c) Define the following:-
 - (i) Software Maintenance
 - (ii) Structure of CASE Tools.

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PAPER ID : 110602

Roll No.

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(SEM. VI) THEORY EXAM
SOFTWARE ENGINEERING

Time : 3 Hours]

Note: Attempt all questions

1 Answer any four parts :

- (a) Define the term "Software Engineering". State the major differences between software engineering and other traditional engineering.
- (b) What is a flow chart? List the techniques useful for drawing flow charts.
- (c) What is software measurement? List the software measurement techniques.
- (d) Explain why program development is an evolutionary development. How to maintain it?
- (e) Explain software development activities during SDLC.

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