

**B. TECH.****THEORY EXAMINATION (SEM-VI) 2016-17  
SOFTWARE ENGINEERING**

Time : 3 Hours

Max. Marks : 100

Note : Be precise in your answer.

**SECTION – A****1. Attempt all parts of the following questions: 10 x 2 = 20**

- (a) What is the software crisis?
- (b) Write major software characteristics.
- (c) Write the methods of requirements elicitation.
- (d) Write the differences between software and software engineering.
- (e) What is the difference between Verification and Validation?
- (f) How software design can be classify?
- (g) Write major software Design Tools.
- (h) Write the names of design principles.
- (i) Write the differences between Top- downs and bottom-up approaches.
- (j) What is software quality?

**SECTION – B****2. Attempt any five parts of the following questions: 5 x 10 = 50**

- (a) What is meant by "Formal Technical Review"? Should it access both programming style as well as correctness of software? Give reasons.
- (b) Compare ISO and SEE-CMI model.
- (c) What is Risk management? How are project risks different from technical risks?
- (d) What is a data flow diagram? Explain rules for drawing good data flow diagrams with the help of a suitable example.
- (e) Explain software quality assurance (SQA) with life cycle.
- (f) Explain software development life cycle. Discuss various activities during SDLC.
- (g) List five desirable characteristics of good SRS document. Discuss the relative advantages of formal and informal requirement specifications.
- (h) What are the characteristics of a software process?

**SECTION – C****Attempt any two parts of the following questions: 2 x 15 = 30**

3. What do you understand by coupling and cohesion? What roles they play in software design? Describe the properties of best coupling and cohesion giving examples of each.
4. What is a Structure Charts? Explain rules for drawing good Structure Charts diagrams with the help of a suitable example.
5. Define the following:
  - (i) Water fall Model
  - (ii) Spiral Model