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**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