

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