V th SEM CS/IS

USN | | | | | | | | | | |

06CS/IS51

Fifth Semester B.E. Degree Examination, December 2010

Software Engineering

Time: 3 hrs. Max. Marks:100

Note: ***Answer any FIVE full questions, selecting at least TWO questions from each part.***

PART – A

1 a. What are the attributes of good software? What are the key challenges facing software engineering? **(10 Marks)**

b. Describe the general model of design process. **(06 Marks)**

c. Explain the requirements engineering process, with a neat block diagram. **(04 Marks)**

2 a. Describe four different types of non-functional requirement, which may be placed, on the systems. Give examples of each of these types of requirements. **(10 Marks)**

b. Describe the salient features of spiral model of software process, with an illustration diagram. **(10 Marks)**

3 a. With a neat block diagram, explain components of a CASE TOOLS for structured method support. **(10 Marks)**

b. What are the most important dimensions of system dependability? **(06 Marks)**

c. What is requirement elicitation and analysis? Explain. **(04 Marks)**

4 a. Explain state machine model for a simple microwave oven. **(10 Marks)**

b. Write the structure of a requirement document suggest by IEEE standard. **(05 Marks)**

c. What is object aggregation? Explain with an example. **(05 Marks)**

PART – B

5 a. Explain with a figure, the data flow model of an invoice processing system. **(10 Marks)**

b. Draw and explain the sequence and state diagram for a typical weather station. **(10 Marks)**

6 a. Explain the structure of a software test plan. **(07 Marks)**

b. Give a brief description of five principles of agile methods. **(07 Marks)**

c. Discuss the advantages of pair programming. **(06 Marks)**

7 a. Explain the characteristics of clean room software development. **(07 Marks)**

b. What are the characteristics of rapid software development? **(07 Marks)**

c. What is software prototyping? Give benefits of software prototyping. **(06 Marks)**

8 a. Differentiate between black box testing and white box testing. **(07 Marks)**

b. List the factors governing staff selection. **(07 Marks)**

c. Name the various estimation techniques in software systems. **(06 Marks)**

* * * * *

V TH SEM CS/IS

USN | | | | | | | | | | |

06CS/IS51

Fifth Semester B.E. Degree Examination, December 2010

Software Engineering

Time: 3 hrs. Max. Marks:100

Note: ***Answer any FIVE full questions, selecting at least TWO questions from each part.***

PART – A

1 a. What are the attributes of good software? What are the key challenges facing software engineering? **(10 Marks)**

b. Describe the general model of design process. **(06 Marks)**

c. Explain the requirements engineering process, with a neat block diagram. **(04 Marks)**

2 a. Describe four different types of non-functional requirement, which may be placed, on the systems. Give examples of each of these types of requirements. **(10 Marks)**

b. Describe the salient features of spiral model of software process, with an illustration diagram. **(10 Marks)**

3 a. With a neat block diagram, explain components of a CASE TOOLS for structured method support. **(10 Marks)**

b. What are the most important dimensions of system dependability? **(06 Marks)**

c. What is requirement elicitation and analysis? Explain. **(04 Marks)**

4 a. Explain state machine model for a simple microwave oven. **(10 Marks)**

b. Write the structure of a requirement document suggest by IEEE standard. **(05 Marks)**

c. What is object aggregation? Explain with an example. **(05 Marks)**

PART – B

5 a. Explain with a figure, the data flow model of an invoice processing system. **(10 Marks)**

b. Draw and explain the sequence and state diagram for a typical weather station. **(10 Marks)**

6 a. Explain the structure of a software test plan. **(07 Marks)**

b. Give a brief description of five principles of agile methods. **(07 Marks)**

c. Discuss the advantages of pair programming. **(06 Marks)**

7 a. Explain the characteristics of clean room software development. **(07 Marks)**

b. What are the characteristics of rapid software development? **(07 Marks)**

c. What is software prototyping? Give benefits of software prototyping. **(06 Marks)**

8 a. Differentiate between black box testing and white box testing. **(07 Marks)**

b. List the factors governing staff selection. **(07 Marks)**

c. Name the various estimation techniques in software systems. **(06 Marks)**

* * * * *