Registration No: | | | | | | | | | | |

Total Number of Pages: 02 **M.TECH**

P2CTCC02

2nd Semester Regular Examination 2016-17

SOFTWARE ENGINEERING

BRANCH: COMPUTER ENGG, COMPUTER SCIENCE, COMPUTER SCIENCE AND ENGG, COMPUTER SCIENCE AND TECH., Information Tech Eng , INFORMATION TECH.

Time: 3 Hours

Max Marks: 100

Q.CODE:Z507

Answer Question No.1 which is compulsory and any FOUR from the rest.

The figures in the right hand margin indicate marks.

Q1 Answer the following questions: ***Short answer type*** **(2 x 10)**

a) What are the desirable properties of a good SRS?

b) Who are actors in the context of Use Case diagrams?

c) Explain why spiral model is called a meta model?

d) What are the different types of coupling that can exist between two modules?

e) Write the symbols used by Booch's model.

f) What do you mean by size of a software project? How is it majored?

g) State the major differences between sequence diagrams and collaboration diagrams.

h) Differentiate between 'Is A' and 'Has A' relationships.

i) What are the advantages of developing a software by using object oriented approach over the traditional procedure oriented approach?

j) What is integration testing?

Q2 **a)** Explain the four P's and their importance in the context of software project management. **(10)**

b) Explain the Unified model of software development? What makes it a better model as compared to the other process models? **(10)**

Q3 **a)** What is the COCOMO estimation model? Show how 'effort' and 'time' are estimated by using the basic COCOMO model? Explain how the COCOMO 2 estimation model differs from the original COCOMO model? **(10)**

b) What do you mean by the term cohesion in the context of software designs? Enumerate the different types of cohesion that a module might exhibit. Give examples of each. **(10)**

Q4 **a)** Outline the steps involved in developing a software system using an object-oriented design mythology. Explain your answer by performing Object Oriented design of the 'ATM' system. **(20)**

Q5 **a)** Explain the following object oriented terminologies with suitable examples: Class, Object, Encapsulation, Inheritance, and Polymorphism. **(10)**

b) What is black box testing? Explain the equivalence class partitioning and boundary value analysis approaches with examples to design black box test cases. **(10)**

Q6 **a)** What is the user interface portion of a software product? What are the characteristics of a good user interface? **(10)**

b) Differentiate between unit testing, integration testing and system testing? Explain how unit testing is done with Driver and Stub modules? **(10)**

Q7 **Write short notes on any *four*.** **(4 x 5)**

a) Coupling

b) Function point approach

c) State chart diagram

d) Lines of Code (LOC)

e) MVC architecture