Registration no: | | | | | | | | | | |

Total Number of Pages: 01 **M.TECH**
CSPC201

2nd Semester Back Examination 2016-17
SOFTWARE ENGINEERING
BRANCH(S): COMPUTER ENGG, COMPUTER SCIENCE, COMPUTER SCIENCE AND ENGG, COMPUTER SCIENCE AND TECH., INDUSTRIAL ENGG, INDUSTRIAL ENGG & MANAGEMENT
Time: 3 Hours
Max Marks: 70
Q.CODE: Z1196

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

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

a) What is a process framework? Name the framework activities applicable to all software projects.
b) Mention three software myths.
c) List down any three Agile Principles.
d) Briefly explain the design concepts – Abstraction, Modularity and Refactoring.
e) Briefly describe the quality function deployment technique.
f) Discuss the regression testing strategy and its significance.
g) Explain the process of formal technical reviews.
h) Mention three attributes and the corresponding metrics for code quality.
i) Briefly describe any three attributes of a good test.
j) What is software architecture? What is its importance?

Q2 **(a)** What is software process? Explain the prototyping model? **(5)**
(b) Why spiral model is more powerful than other models explain?

Q3 **a)** Describe the metrics for the design model of a product. What are the attributes of effective software metrics? **(5)**
b) Write the three contents of SRS document? Write the different steps to write a SRS document. **(5)**

Q4 **(10)**

Estimate the effort required to develop software for a simple module that produces 15 screens, 10 reports and will require around 100 software components. Assume average complexity and average developer / environment maturity. Use the Application Composition Model of COCOMO-II with Object Points. State any assumptions you make.

Q5 **a)** Design Use case, Sequence, Class and Activity diagram of Railway Reservation System? **(5)**
b) Describe the various testing strategies. **(5)**

Q6 **a)** Explain the different types of user interface design? **(5)**
b) Write the standards and guidelines of coding? **(5)**

Q7 **a)** Why maintenance is required Explain? **(5)**
b) Explain elaborately the various strategies and steps involved in risk management. **(5)**

Q8 **Write short notes (Any TWO) of the following** **(5 x 2)**

a) Software Quality
b) SDLC
c) Quality Assurance
d) Prototype Model