

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: MCA
BRANCH: MCA**

**SEMESTER : II
SESSION : SP/22**

SUBJECT: CA415 SOFTWARE ENGINEERING PRINCIPLES

TIME: 2HRS

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Candidates have to attempt all 5 questions maximum of 50 marks.
3. The missing data, if any, may be assumed suitably.
4. Before attempting the question paper, be sure that you have got the correct question paper.

Q.1(a) What is a process model? Outline the major steps involved in a spiral model. [5]

Q.1(b) Discuss the reasons why substantial software systems often take longer to implement than planned and do not perform as well as expected. [5]

Q.2(a) What are the steps in developing a complete use case? Describe briefly. [5]

Q.2(b) Explain Requirements validation. Write at least five questions by which we can validate requirements. [5]

Q.3(a) Explain the functional independence of modules in terms of Cohesion and Coupling. [5]

Q.3(b) What is meant by modularity? How to decide the right number of modules for a specific Software design? [5]

Q.4(a) Explain the Basis Path Testing technique with suitable example. [5]

Q.4(b) Explain how Regression testing differs from the Stress testing. [5]

Q.5(a) What is Construction Cost Model? Explain with the help of an example. [5]

Q.5(b) Elaborate the steps of Software Configuration Management process. [5]

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