

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

**CLASS: BE
BRANCH: CSE**

**SEMESTER : VI/ADD
SESSION : SP/19**

SUBJECT: CS6109-SOFTWARE ENGINEERING

TIME: 3 Hours

FULL MARKS: 60

INSTRUCTIONS:

1. The question paper contains 7 questions each of 12 marks and total 84 marks.
 2. Candidates may attempt any 5 questions maximum of 60 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.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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| Q.1(a) What is a software process? | [2] |
| Q.1(b) Discuss s/w characteristics. | [4] |
| Q.1(c) Explain spiral model with characteristics and limitations. | [6] |
| Q.2(a) Differentiate milestones and deliverables with suitable example. | [2] |
| Q.2(b) Explain project scheduling with process. | [4] |
| Q.2(c) Discuss risk management categories. | [6] |
| Q.3(a) Define requirement. Differentiate between functional and non functional requirements. | [2] |
| Q.3(b) Explain structured language specifications. | [4] |
| Q.3(c) Why Eliciting and understanding stakeholder requirement is difficult? Explain. | [6] |
| Q.4(a) What is the use of sequence diagram? Provide one example of it. | [2] |
| Q.4(b) Explain architectural design decisions. | [4] |
| Q.4(c) Explain UI design process with suitable diagram. What is UI prototyping? | [6] |
| Q.5(a) Differentiate between verification and validation. | [2] |
| Q.5(b) Discuss sandwich integration and regression testing. | [4] |
| Q.5(c) Write short notes on reliability and unit testing. | [6] |
| Q.6(a) Name factors governing staff selection. | [2] |
| Q.6(b) Explain algorithmic cost models in project planning. How software cost can be computed? | [4] |
| Q.6(c) Discuss quality planning and control. | [6] |
| Q.7(a) Write Lehman's law for evolution of software products. | [2] |
| Q.7(b) Explain software maintenance cost with example. | [4] |
| Q.7(c) What is ISO 9000 certification? What are the shortcomings of it? Discuss. | [6] |

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