

**Advanced Diploma in Information Technology
(ADIT) / Bachelor in Information Technology (BIT)**

Term-End Examination

June, 2010

00029

**CST-204 : ADVANCED TOPICS IN SOFTWARE
ENGINEERING**

Time : 3 hours

Maximum Marks : 75

Note: There are two sections in this paper. Section-A is compulsory, Questions number 1 to 10 carry 1 mark each. Questions number 11 to 14 carry 5 marks each. Answer any three questions from Section-B. Each question of Section-B carries 15 marks.

SECTION - A

1. _____ is the establishment and use of sound engineering principles in order to obtain economically software that is reliable and works efficiently on real machines. 1
- (a) Hardware Engineering
 - (b) Software Engineering
 - (c) Testing Only
 - (d) None of the above

2. Rapid Application Development is an incremental software development process model that emphasizes _____ development cycle. **1**
- (a) Extremely short
 - (b) Long
 - (c) Complex
 - (d) None of the above
3. In _____, the data objects defined in the data modeling phase are transformed to achieve the information flow necessary to implement a business function. **1**
- (a) Business modeling
 - (b) Process modeling
 - (c) Black Box Testing
 - (d) White Box Testing
4. The _____ combines elements of the linear sequential model, applied repetitively, with the iterative philosophy of prototyping. **1**
- (a) Incremental model
 - (b) Spiral model
 - (c) Stress testing
 - (d) None of the above

5. The _____ is an evolutionary software process model that couples the iterative nature of prototyping with the controlled and systematic aspects of the linear sequential model. **1**
- (a) Spiral model
 - (b) Regression Testing
 - (c) Both (a) and (b)
 - (d) None of the above
6. A _____ provides the framework from which a comprehensive plan for software development can be established. **1**
- (a) Software product
 - (b) Software Process
 - (c) SQA
 - (d) All of the above
7. A _____ software engineering team has no permanent leader. **1**
- (a) Controlled decentralized
 - (b) Controlled centralized
 - (c) Democratic decentralized
 - (d) None of the above
8. LOC stands for _____. **1**
- (a) Lines of code
 - (b) Law of code
 - (c) Lines of computation
 - (d) None of the above

9. FP stands for _____ . 1
- (a) Function Point
 - (b) Function Progress
 - (c) Final Point
 - (d) None of the above
10. _____ activity accounts for more effort than 1
any other software engineering activity.
- (a) Software Maintenance
 - (b) Software Analysis
 - (c) Software Design
 - (d) None of the above
11. Explain Software Configuration Management. 5
12. What is a Gantt chart ? Give an example. 5
13. What is Quality Assurance. 5
14. Explain function Oriented metrics. 5

SECTION - B

Answer *any three* questions from this section :

15. Explain Water Fall Model, in detail. 15
 16. Explain any three types of risks. 15
 17. Define the term "Testing". Explain any 4 characteristics that lead to testable software. 15
 18. Explain the differences between Verification and Validation. 15
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