

## Bachelor in Information Technology (BIT)

### Term-End Examination

December, 2007

### CSI-08 : QUALITY MANAGEMENT PRINCIPLES

Time : 3 Hours

Maximum Marks : 75

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**Note :** All questions from Section A are **compulsory**. Answer any **three** questions from Section B.

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#### SECTION A

1. (a) Who are the important stakeholders in software projects ? Identify them. 4
- (b) What is meant by rapid prototyping in software quality ? How is it useful in software development ? 4
- (c) Explain various steps involved in software quality assurance. 4
- (d) List any eight causes of errors in software. 4
- (e) What is formal technical review ? List various objectives of formal technical review. 4
  
2. Define the following terms in the context of software quality : 1×10=10
  - (i) Auditability
  - (ii) Consistency
  - (iii) Structuredness
  - (iv) Traceability
  - (v) Verifiability
  - (vi) Robustness
  - (vii) Compatibility
  - (viii) Predictability
  - (ix) Modularity
  - (x) Understandability

### SECTION B

Answer any **three** questions from this section.

3. (a) Why is it necessary to plan software projects? What are the broad activities that encompass software project planning? What are the different levels at which software planning is carried out? 10
- (b) Explain any two types of maintenance techniques in software project development. 5
4. (a) Explain the significance and the roles of the following charts : 7
- (i) GANTT
- (ii) PERT
- (b) Name the different software production process models. Bring out a comparison of these process models. 8
5. (a) Define software reliability. Discuss any one software reliability model. 6
- (b) There are four important dimensions of software projects — people, process, product and technology. Discuss the implications of each of these four project dimensions for the success of software project. 9
6. (a) What is the difference between SEI CMM standards and ISO 9000-2000 standards? 7
- (b) Elaborate various activities performed in software testing and implementation phases. 8
7. (a) What are the five elements that are useful in the estimation of function points for software products? 8
- (b) Mention the importance of software project estimation in the context of software project management. 7