

2014

Candidates are required to give their answers in their own words as far as practicable.

Time: 3 hours

Full Marks: 80

All questions are of equal values.

Answer any five questions in which **Q. No. 1** is compulsory.

1. Indicate the correct answer from the following:-

(a) \_\_\_\_\_ focuses on functional requirement of the software:-

- i. Red-Box testing      ii. Back-boxd testing
- iii. Glass-box testing      iv. None

(b) Which testing is call behavioral testing:-

- i. Back-box testing      ii. Red-Box testing
- iii. Glass-box testing      iv. None

(c) \_\_\_\_\_ refers to the set of activities that ensure that software corectly implements a specific function.

- i. Conversion      ii. Validation
- iii. Correction      iv. Verification

(d) \_\_\_\_\_ integration testing begins construction and testing with atomic modules.

- i. Top down      ii. Bottom Up
- iii. Up-Down      iv. Top Up

(e) A project involves a temporary assemblage of \_\_\_\_\_ brought together to solve a specific problem.

- i. Data      ii. Material
- iii. Files      iv. Resources

- (f) Identify, from among the following the **correct** statement
- i. One of the main challenges Software Engineering facing today is the requirement of most software systems to work with a multitude of homogenous systems.
  - ii. 'Legacy systems' are custom developed software for the legal domain
  - iii. Software does not wear-out in the traditional sense of the term, but software does tend to deteriorate as it evolves
  - iv. Since software is essentially 'intangible' it is relatively easy to manage software projects.
- (g) Software Engineering:
- i. Is a set of rules about developing software products
  - ii. Has been around as a discipline since the early 50's
  - iii. Started as a response to the so-called 'Software Crisis' of the late 90's
  - iv. Is an engineering discipline concerned with all the aspects of software production
- (h) With regard to Evolutionary development, identify the **correct** statement.
- i. Evolutionary development usually comes in two flavors; exploratory development, and throw-away prototyping.
  - ii. Very large project are natural candidates for an evolutionary development based approach
  - iii. Exploratory development is used in situations where most of the requirements are well understood in advance
  - iv. One of the strong points of evolutionary

development is that it facilitates easy project management, through the high volume of documentation it generates.

2. Explain the life cycle of software Engineering. Also, explain the advantages of software Engineering.
3. What are the measurements of Quality? Explain Quality Requirement in different application Area.
4. Explain the applications of software engineering principles to compiler construction and software engineering.
5. Explain goal and requirement of verification.
6. Explain project planning and project control.
7. Discuss the historical evolution of tools and environments.
8. What do you mean by software standards? Explain.
9. Explain the role of software engineering in system design.

