



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/BCA/SEM-4/BCA-403/2011  
2011**

**SOFTWARE PROJECT MANAGEMENT &  
QUALITY ASSURANCE**

Time Allotted : 3 Hours

Full Marks : 70

*The figures in the margin indicate full marks.*

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

**GROUP – A**

**( Multiple Choice Type Questions )**

1. Choose the correct alternatives for the following :

10 × 1 = 10

- i) Project planning does not include
  - a) Risk identification
  - b) Design
  - c) Cost estimation
  - d) Configuration.
- ii) The main goal of quality assurance is to
  - a) set coding standards
  - b) improve software project management
  - c) reduce the technique and programmatic risk in developing software
  - d) specify correcting action.



- iii) COCOMO belongs to
  - a) Empirical estimation
  - b) Heuristic estimation technique
  - c) Analytical technique
  - d) None of these.
- iv) The chain of activities that determines the duration of the project is the
  - a) Duration path
  - b) Critical path
  - c) Linearly independent path
  - d) None of these.
- v) If the project size is same, then the development time is maximum in case of
  - a) embedded
  - b) semi-detected
  - c) organic
  - d) none of these.
- vi) An example of single variable heuristic cost estimation model is
  - a) Halstead software science
  - b) basic COCOMO model
  - c) intermediate COCOMO model
  - d) complete COCOMO model.
- vii) Product quality is defined as
  - a) delivering a product with correct requirements
  - b) delivering a product using correct developed procedure
  - c) delivering a product with its software developed iteratively
  - d) delivering a product using high-quality procedure.



- viii) Which of the following is not the main reason to undertake software quality assurance ?
- a) Reduced software personnel turnover
  - b) Legal liability
  - c) Insistence by the user on a satisfactory software quality assurance program
  - d) marketing reason.
- ix) An algorithmic cost modelling is
- a) COCOMO
  - b) McCabe cyclomatic measure
  - c) MTF
  - d) None of these.
- x) Schedule slippage is a type of
- a) Business risk
  - b) Project risk
  - c) Technical risk
  - d) None of these.

**GROUP – B**

**( Short Answer Type Questions )**

Answer any *three* of the following.  $3 \times 5 = 15$

2. Distinguish between software verification and software validation.
3. What is COCOMO Model ? Indicate different categories of software development project according to COCOMO estimation model.  $1 + 4$
4. What is Format Technical Review ( FTR ) ? What are the differences between fault failure and error ?  $1 + 4$
5. What steps are required to perform SQA ?
6. What is McCabe's cyclomatic complexity metric ? What is its use ?  $3 + 2$



**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following.  $3 \times 15 = 45$

7. What are the limitations of SDLC ? What are the different types of team structure followed in software project ? Define the utilities of PERT chart with an example.  $5 + 5 + 5$
  8. What is software quality ? What are the different Quality Assurance activities recommended by SEI ? What is Software Quality Assurance ?  $2 + 10 + 3$
  9. Define project planning. Mention different project planning process activities. Describe the project scope.  $2 + 10 + 3$
  10. Describe configuration management plan. Describe project purpose.  $10 + 5$
  11. Write short notes on any *three* of the following :  $3 \times 5$ 
    - a) Gantt chart
    - b) Work breakdown structure
    - c) SDLC
    - d) CMM
    - e) System testing.
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