# Second Year B.C.A (Semester - I) Examination
## Paper - 15BCA204
## Software Engineering &Testing

Time : Three hours]                                    [Full Marks - 60

**N.B. :**   i)   All questions carry equal marks
   ii)   Due credit will be given to neatness & adequate dimensions.
   iii)   Assume suitable data wherever necessary.
   iv)   Illustrate your answer necessary with the help of neat skectches.
   v)   Use Blue/Black ink/refill only for writing the answer book.

Q.1   Fill in the blanks and rewrite the following statements.      5
   a)   Which one of the following models is not suitable for accommodating any change ?
      i)   Build & Fix Model          ii)  Prototyping Model
      iii) RAD Model                      iv)  Waterfall Model
   b)   CoCoMo stands for _____
      i)   COnsumed COst MOdel
      ii)   COnstructive COst MOdel
      iii)  COmmon COntrol MOdel
      iv)  COmposition COst MOdel
   c)   Which tool is use for structured designing.
      i)   Program flowchart          ii)  Structure chart
      iii) Data-flow chart               iv)  Module
   d)   What are the Various Testing Levels ?
      i)   Unit Testing                   ii)  System Testing
      iii) Integration Testing          iv)  All of the mentioned

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e) The modification of the software to match changes in the ever changing environment, falls under which category of software maintenance.
   i) Corrective ii) Adaptive
   iii) Perfective iv) Preventive

Q.2 a) Explain the spiral model of software development life cycle in details. 6
   b) Explain the following myths of software. 5
      i) user myths ii) developers myths

OR

Q.3 a) Explain the waterfall model of software development life cycle in details. 6
   b) Define Software Engineering. Explain the software Engineering layers. 5

Q.4 a) Explain the following types of software requirement. 6
      i) Functional Requirement
      ii) Non Funtional Requirement
   b) Explain the various software product cost factors in detail. 5

OR

Q.5 a) Explain the object oriented modeling in software requirements. 5
   b) Explain the COCOMO model for software cost estimation in detail. 6

Q.6 a) Explain the software coding features in detail. 5
   b) Explain the following software design notations. 6
      i) Flowchart ii) Data Flow diagrams

OR

Q.7 a) Explain the following software programming practices. 6
      i) top-down ii) bottom-up
   b) Explain the object oriented design in detail. 5

Q.8 a) Explain the V-mode concept in software testing. 4
   b) Compare the Black box testing with White box testing in details. 7

OR

Q.9 a) Explain :- 6
      i) Unit testing
      ii) Integration testing
      iii) System testing
   b) Explain the various strategies used in software testing. 5

Q.10 a) Explain software quality assurance standards in detail. 6
   b) Explain software maintenance life cycle in details. 5

OR

Q.11 a) Explain : 6
      i) Software Planning
      ii) Software Control
   b) Explain types of software maintenance in details. 5

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