

Seat No. : \_\_\_\_\_

**NQ-122**

**November-2017**

**Third Year M.Sc., (C.A. & I.T.)**

**Software Engineering  
(Integrated)**

**Time : 3 Hours]**

**[Max. Marks : 100**

1. Attempt any **Four** : **20**
  - (1) What characteristics differentiates WebApps from other software ?
  - (2) Explain any three David Hooker's principles.
  - (3) Why are evolutionary models considered by many to be the best approach to software development in a modern context ?
  - (4) Describe the phases of the prototyping model for software development.
  - (5) List the key issues stressed by an agile philosophy of software engineering. Explain how they are resolved using agile approach.
  
2. Attempt any **Four** : **20**
  - (1) Explain in brief generic elements of requirements models.
  - (2) Explain in brief four design models required for a complete specification of a software design and the role of each.
  - (3) Explain CRC model Index card using figure.
  - (4) Define a problem and draw sequence diagram of your choice.
  - (5) Explain in brief five main classes of requirement models of WebApp.
  
3. Attempt any **Four** : **20**
  - (1) Explain architectural context diagram using figure.
  - (2) What are the steps used to complete the component-level design for a software development project ?
  - (3) Explain OCP and CRP.
  - (4) What is an architectural style ? Explain data centered and data-flow architecture with figure.
  - (5) What is coupling ? Explain in brief all coupling categories.

4. Attempt any **Four** : **20**
- (1) What is software quality control and Quality Assurance ?
  - (2) Explain defect amplification and removal model.
  - (3) Write a short note on Formal Technical Review.
  - (4) Explain testing strategy using figure.
  - (5) What is good test ? (explain test characteristics)
5. Attempt any **Four** : **20**
- (1) Explain elements of software configuration management system.
  - (2) Explain change control process with figure.
  - (3) Explain characteristics of a good software metric.
  - (4) Explain Function-based metrics with example.
  - (5) Explain design pyramid for WebApps.
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