

B.E. Degree Examination, December 2020  
Semester - VIII  
**CS16011 – ADVANCED SOFTWARE ENGINEERING**  
(Regulation 2016)

Time: Three hours

Maximum : 80 Marks

Answer **ALL** questions**PART A - (8 X 2 = 16 marks)**

1. Which of the following is not correct model in Software Development Paradigm?
  - A) Waterfall Model
  - B) P model
  - C) Spiral Model
  - D) V model
2. Build & Fix Model is suitable for programming exercises of \_\_\_\_\_ LOC (Line of Code).
  - A) 100-200
  - B) 200-400
  - C) 400-1000
  - D) Above 1000
3. Select the option that suits the Manifesto for Agile Software Development
  - A) Individuals and interactions
  - B) Working software
  - C) Customer collaboration
  - D) All of the mentioned
4. Which architecture is used when there is a high volume of transactions to be processed by the server?
  - A) Multi-tier client–server architecture
  - B) Master-slave architecture
  - C) Distributed component architecture
  - D) Peer-to-peer architecture
5. How does the risk factor affect the spiral model of software development?
6. How will you distinguish a Software fault from software failure?
7. How do you deal when requirements change frequently?
8. What problems arise if two modules have high coupling?

**PART B - (4 X16 = 64 marks)**

9. (a) Discuss various software development life cycle models. Suggest which model is best suited for delivery of end products with the complete satisfaction of both developer and customer. (16)
- (OR)**
- (b) Explain how does the customer wins by getting the system or product that satisfy the majority of the customer’s needs and the developer wins by working to realistic and achievable budgets and deadline? (16)
10. (a) Explain why a high-quality software process should lead to high -quality software products. Discuss possible problems with this system of quality (16)

management.

**(OR)**

- (b) How the software deliverables and its development processes are quantified?  
Explain in detail about various Measurement scales and Scale types **(16)**

11. (a) Suggest any one Agile methodology which is best suited for modern software development by comparing with various other techniques and Justify with an example. **(16)**

**(OR)**

- (b) What do you understand by 'Scalability'? Discuss the difference between 'Scaling up' and 'Scaling out' and explain when these different approaches to scalability may be used. **(16)**

12. (a) Explain in detail about Software as a service and how developing software as a service can reduce the IT support costs for a company. What additional costs might arise if this deployment model is used? **(16)**

**(OR)**

- (b) Explain the necessity for patterns in software development process and discuss about the architectural patterns for distributed systems with a neat diagram. **(16)**