

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fourth Semester M.Sc Degree Examination, March/April 2020  
MCS4C01 – Principles of Software Engineering  
(2018 Admission onwards)

Time: 3 hours

Max. weightage : 36

**Section A**  
**Answer all questions**

1. Define Maintainability.
2. What do you mean by industrial strength software?
3. What is the iron triangle?
4. When do we prefer prototyping model?
5. Define software architecture.
6. What are the characteristics of a good SRS document?
7. List different levels of system testing.
8. List the levels of coupling.
9. Define any two metrics in SRS.
10. What are the metrics for size of programs?
11. What are the characteristics of a good UI?
12. What do you mean by project management Process?

(12x1=12 weightage )

**Section B**  
**Answer any six questions**

13. Identify at least four basic characteristics that differentiate student systems and Industrial strength software?
14. Describe the ISO standards for the quality of a project.
15. What are the ETVX properties?
16. What are the limitations of Waterfall model?
17. Explain cohesion in detail.
18. Differentiate analysis and design.
19. What are the components of an SRS document?
20. Differentiate function oriented design and object oriented design.
21. Explain the process of code review in detail.

(6x2=12 weightage)

### Section C

Answer any three questions

22. Explain in detail about Timeboxing model.
23. Give the IEEE structure of an SRS document.
24. Describe the need and importance of DFD with the help of example.
25. Explain White box testing in detail.
26. Differentiate different types of User interfaces?
27. Write notes on
  - (a) Approaches to quality management
  - (b) Risk Assessment and Management

(3x4=12 weightage)

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fourth Semester M.Sc Degree Examination, March/April 2020  
MCS4E01(4) – Storage Area Networks  
(2018 Admission onwards)

Time: 3 hours

Max. weightage : 36

**Section A**  
**Answer all questions**

- What is JBOD?
- What is remote mirroring?
- List the different RAID levels.
- What is SAN?
- What is Fiber Channel?
- Define FC-0 layer.
- List the different Classes of Service (CoS) of fiber channel.
- What is Storage Virtualization?
- What is Host Bus Adaptor?
- 1. What is Symmetric Storage Virtualization?
- 1. What is Instant Copying?
- 2. List the different ports in fiber channel architecture

(12x1=12 weightage )

**Section B**  
**Answer any six questions**

- 3. Differentiate Server centric IT architecture and Storage centric IT architecture.
- 4. Write about the different types of IO Channels in Intelligent Disk Subsystem.
- 5. Explain the three levels of disk subsystem with regard to the complexity of their controller.
- 5. Explain the basics of Fiber Channel and its advantages over SCSI.
- 7. Differentiate NAS and SAN.
- 8. Differentiate Block level and File level Virtualization.
- 9. Write about Fiber Channel Switch.
- 9. Explain the different layers of Fiber Channel Protocol.
- 1. Explain the different Classes of Service of Fiber Channel.

(6x2=12 weightage)

**Section C**  
**Answer any three questions**

22. What is RAID technology? Explain its levels.
23. Explain the three additional functions offered by Intelligent Disk Subsystem.
24. What is NAS? Explain its hardware and software architecture.
25. What are the implementation considerations of storage virtualization?
26. Explain the different parts for creating a SAN.
27. Differentiate Symmetric and Asymmetric storage virtualization.

**(3x4=12 weigh**