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**Question Paper Code: 33206**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2022

Third Semester

Computer Science and Engineering

01UCS306 - SOFTWARE ENGINEERING

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Mention the four layers of software engineering.
2. List the process maturity levels in SEIs CMM?
3. What do you mean by 'Non-Functional' requirements?
4. What are the elements of Analysis model?
5. What are the common activities in design process?
6. What is interface design? What is user interface design?
7. What is boundary value analysis?
8. What are the two levels of testing?
9. How to compute the cyclomatic complexity?
10. Write the types of software maintenance.

PART - B (5 x 16 = 80 Marks)

11. (a) Discuss system engineering hierarchy and briefly explain each level in the hierarchy.

(16)

Or

- (b) With an example, illustrate the purpose and format of a timeline chart and resource table used in software project scheduling. (16)
12. (a) What is Requirement Engineering? State its process and explain requirement elicitation problem. (16)

Or

- (b) Examine how a perfect prototyping approach can be selected by identifying the merits and demerits of each approach. (16)
13. (a) Enumerate data design concepts and principles in detail. (16)

Or

- (b) (i) List and describe the design steps of the transform mapping. (8)  
(ii) How the interrupts are handled in real time system? Explain. (8)
14. (a) Explain about basis path testing and loop testing with suitable example. (16)

Or

- (b) With a neat block diagram, explain the various steps involved in the software debugging process. Also describe the various debugging strategies. (16)
15. (a) (i) What is COCOMO –II model? Explain in detail. (8)  
(ii) Explain about the basic principles for project scheduling. (8)

Or

- (b) (i) Explain about Tracking the schedule. (8)  
(ii) Explain in detail about Timeline charts. (8)
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