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**Question Paper Code: 33206**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

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. Draw a diagram to show the relationship between effort and delivery time in project scheduling.
3. What do you mean by 'Non-Functional' requirements?
4. Identify any two requirements validation techniques.
5. What are the common activities in design process?
6. Specify any four software design quality attributes?
7. What are the common approaches in debugging?
8. Give the difference between alpha and beta testing.
9. Define cyclomatic number.
10. Give the four process metrics.

PART - B (5 x 16 = 80 Marks)

11. (a) Enumerate the different specialized process models used in the software development. When will you apply the specialized process models? (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) Explain how requirement validation is carried out? (16)

Or

- (b) Examine how a perfect prototyping approach can be selected by identifying the merits and demerits of each approach. (16)

13. (a) Apply the architectural design concept of a software development process on a suitable example and discuss the difficulties you faced. (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) (i) Explain in detail about system testing. (8)

- (ii) Explain in detail about validation testing. (8)

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) Describe the various risk identification and risk projection techniques. Derive the formula to determine the risk exposure. (16)

Or

- (b) Give the general structure of estimation models. Illustrate the COCOMO II estimation model with an example. (16)