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Question Paper Code	12769
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**B.E. / B.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2024**

Third Semester

**Information Technology**

**20ITPC302 - SOFTWARE ENGINEERING**

Regulations - 2020

Duration: 3 Hours

Max. Marks: 100

**PART - A (10 × 2 = 20 Marks)**

Answer ALL Questions

	Marks	K – Level	CO
1. State the drawback of waterfall model.	2	K1	CO1
2. List the process maturity levels in SEIs CMM.	2	K1	CO1
3. Mention some of the Notations for requirements specification.	2	K2	CO2
4. List out the problems faced when user requirements are written in natural language.	2	K1	CO2
5. What are the various types of coupling?	2	K2	CO3
6. What are the golden rules of interface design?	2	K2	CO3
7. Distinguish between alpha and beta testing.	2	K2	CO4
8. What is business process reengineering?	2	K1	CO4
9. Compare size oriented and function oriented metrics.	2	K1	CO5
10. Define ZIPF's law.	2	K1	CO5

**PART - B (5 × 13 = 65 Marks)**

Answer ALL Questions

11. a) Explain in detail about spiral model with a neat sketch and comment why this model comes under both evolutionary and RAD models.	13	K2	CO1
<b>OR</b>			
b) i) Explain briefly about various Agile processes and its principles.	7	K2	CO1
ii) Explain in detail about the process involved in Extreme programming.	6	K2	CO1
12. a) Discuss in detail about the requirements discovery, elicitation and Interviewing.	13	K2	CO2
<b>OR</b>			
b) Compare and contrast the features of structural analysis and classical analysis with appropriate use cases.	13	K2	CO2
13. a) Explain about software architecture design, with emphasize as fan in, fan-out, coupling, cohesion and factoring.	13	K2	CO3

**OR**

- b) Discuss the process of translating the analysis model into a software design. 13 K2 CO3
14. a) i) Compare White box and black box testing. 5 K2 CO4  
ii) Write a procedure for the following: Given three sides of a triangle, return the type of triangle i.e. equilateral, isosceles and scalene triangle. Draw the Control Flow Graph and calculate the minimum number of paths. 8 K2 CO4

**OR**

- b) State Boundary value analysis. Explain the technique specifying rules and its usage with the help of an example. 13 K2 CO4
15. a) i) Examine the activities associated with project process planning. 7 K2 CO5  
ii) Write short notes on Earned Value Analysis for project tracking. 6 K2 CO5

**OR**

- b) Describe in detail about the following scheduling  
i) Timeline charts. 7 K2 CO5  
ii) Tracking the schedule. 6 K2 CO5

**PART - C (1 × 15 = 15 Marks)**

16. a) Discuss the concept of RMMM with example. 15 K2 CO6

**OR**

- b) Explain the Importance of CASE TOOLS in detail. 15 K2 CO6