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Question Paper Code	12770
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M.E. / M.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2024

Third Semester

M.E - CAD/CAM

20PCDPC301 - RESEARCH METHODOLOGY

Regulations - 2020

Duration: 3 Hours

Max. Marks: 100

**PART - A (10 × 2 = 20 Marks)**

Answer ALL Questions

	Marks	K- Level	CO
1. List the objectives of research.	2	K1	CO1
2. State the necessity of defining research problems.	2	K1	CO1
3. What are the main elements in literature review?	2	K1	CO2
4. Explain theoretical framework in short.	2	K2	CO2
5. Narrate the types of measurement scales.	2	K2	CO3
6. Define observation method.	2	K1	CO3
7. What is hypothesis?	2	K1	CO4
8. What is Chi-square test?	2	K1	CO4
9. Define interpretation.	2	K1	CO5
10. What is oral presentation?	2	K1	CO5

**PART - B (5 × 13 = 65 Marks)**

Answer ALL Questions

11. a) Enumerate the techniques involved in defining the problem.	13	K2	CO1
<b>OR</b>			
b) Explain the process of preparation of thesis.	13	K2	CO1
12. a) Show the steps involved in literature review process.	13	K2	CO2
<b>OR</b>			
b) Explain the different types of research designs.	13	K2	CO2
13. a) Explain the case study method in detail.	13	K2	CO3
<b>OR</b>			
b) Illustrate the important methods of collecting data.	13	K2	CO3

14. a) Explain the Chi-Square Test as a test of goodness of fit. 13 K2 CO4  
**OR**  
b) Explain in detail the test procedure for hypothesis testing of means. 13 K2 CO4
15. a) Narrate the precautionary steps to be taken for writing research report. 13 K2 CO5  
**OR**  
b) Extend your understanding in various types of report. 13 K2 CO5

**PART - C (1 × 15 = 15 Marks)**

16. a) Enumerate the various problems encountered by the researcher in India. 15 K2 CO1  
**OR**  
b) What do you mean by the power of a hypothesis test? How can it be measured? Describe and illustrate by an example. 15 K2 CO4