

# QUESTION BANK OF

**RM & IPR (B. TECH. CSE) -7<sup>TH</sup> SEM.**

**For MTE, 2025.**

- Q1. Explain the various steps involved in research process.
- Q2. What is scientific research? What is its significance in modern age?
- Q3. Differentiate research methodology from research methods.
- Q4. Explain the various problems that the researchers face.
- Q5. "Research is a dedicated sequential process". Discuss this statement.
- Q6. Differentiate the following:  
Pure and applied research  
Conceptual and empirical research
- Q7. Explain the following statement and justify it:  
"Criteria of good research is the motivation of good research".
- Q8. Motivation and confidence are the keys to success. How can you substantiate this statement?
- Q9. With an example, explain the various steps in research process.
- Q10. Write notes on research ethics.
- Q11. Explain the different criteria in selecting a research objective.
- Q12. Explain the different types of research.
- Q13. What is the relationship of research to science? What do you mean by technology research?
- Q14. What are the different items to be included in research proposal? Explain each in detail.
- Q15. Define and distinguish between theory, law and hypothesis.
- Q16. Explain the ethical considerations related to empirical research.
- Q17. Explain the differences between social, scientific and engineering research.

Q18. List out the social impacts of research inventions.

Q19. What are variables? List out the different variables used in a social research.

Q20. What are qualitative and quantitative methods? How are they useful in research?

Q21. Explain how scientific collaborations are made while performing research?

Q22. What are the limitations of quantitative research approach?

Q23. What is the bottom-up approach in qualitative research?

Q24. What are the steps involved in the research process for the social/economic surveys?

Q25. What are the ethical norms in research? Explain the reasons.

Q26. Explain the ethical principles in research.

Q27. Distinguish between:-

- a) Good and poor literature review.
- b) Open-ended and closed-ended questions.
- c) Research and Hypothesis.

Q28. Explain scientific importance of primary and secondary sources of literatures.

Q29. Can we trust Internet as a primary source of literature?

Q30. What is a literature review? How it differs from literature survey?

Q31. How do you arrive that the literature review is poor?

Q32. Explain the steps involved in formulating a research problem.

Q33. What are the major criteria for selecting a research problem?

Q34. Explain feasibility of a research problem.

Q35. Why is it so important to have a clear/specific research problem definition?

Q36. Explain critical thinking?

Q37. What are the major objectives of literature review?

Q38. What are the basic purposes of having literature survey?

Q39. Classify each set of data as discrete or continuous-

- a) Number of boxes in a moving train Height of Everest
- b) Time taken for a car battery to die
- c) Number of car manufactured by BMW in 2013 Production of rice by weight
- d) Number of tails while flipping a coin

Q40. Distinguish between discrete and continuous data.

Q41. What are quantitative data? How it differ from quantitative data?

Q42. Classify each set of data as discrete or continuous.

- 1. Number of children in a household
- 2. Height of children
- 3. Weight of cars
- 4. Speed of trains
- 5. Number of people in a train
- 6. Weight of aeroplane.

Q43. Prepare a questionnaire limited to 10 questions to conduct a survey “Is Aadhar essential for people”?

Q44. What are the major drawbacks of open-ended questionnaire?

Q45. Prepare a questionnaire that shows the performance measurements of a class teacher who is handling the UGC post graduate classes.

Q46. What is involved in a cross-sectional research design; give examples?

Q47. What is case study research? What methods of data collection are suited to a case study approach?

Q48. Suppose you want to conduct a study in the area of alcoholism. In formulating your research problem, what steps will you take?

