



# CBCS SCHEME

BAE657D

Question Paper Version : D

Sixth Semester B.E./B.Tech. Degree Examination, June/July 2025

## Multi – Disciplinary Research in Aeronautical Engineering

Time: 1 hr.]

[Max. Marks: 50

### INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners on the OMR sheets are strictly prohibited.**

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1. The key areas in research documentation is  
a) Research design    b) Data collection    c) Variables    d) All of these
  2. Published information in a particular subject area is discussed in  
a) Journals    b) Research proposal  
c) Literature review    d) All of these
  3. Who should write literature review?  
a) Scholar    b) Teacher    c) Supervisor    d) Consultant
  4. All Research processes start with  
a) Observation    b) Hypothesis    c) Experiments    d) Logical
  5. Applied research is a type of research on the basis of  
a) Application    b) Objective  
c) Types of information    d) None of these
  6. A research normally ends with same \_\_\_\_  
a) Recommendations    b) Conclusion    c) Summary    d) Both (a) & (b)
  7. Smoking and lung cancer is an example of  
a) Descriptive research    b) Exploratory research  
c) Explanatory research    d) Co relational research
  8. The following type of research is used to recommend a final course of an action.  
a) Action research    b) Basic    c) Quantitative    d) Both (b) & (c)

9. Strength of association is studied in which study design?  
a) Analytical                      b) Observational                      c) Interventional                      d) Both (a) & (c)
10. Which one is not part of Research Methodology?  
a) Collecting information                      b) Writing LR  
c) Drawing conclusions                      d) Follow up
11. Which of the following technique is commonly used in quantitative research to ensure a representative sample?  
a) Convenience sampling                      b) Snowball sampling  
c) Purposive sampling                      d) Random sampling
12. Which of the following is not a type of Interview?  
a) Semi - structured                      b) Specific                      c) Structured                      d) Unstructured
13. \_\_\_\_\_ includes data concerning the family background and educational development.  
a) Case study                      b) General behavior  
c) Genetic approach                      d) Adequacy
14. Which of the following is a primary objective of data collection in research?  
a) To obtain general knowledge  
b) To test hypothesis  
c) To conduct literature review  
d) To provide recommendations for future research
15. A survey is an example of which data collection method?  
a) Questionnaire                      b) Experiment                      c) Interview                      d) Observation
16. In Data collection, what is meant by Data Validation?  
a) Checking the accuracy and reliability of collected data  
b) Analyzing the data to draw conclusions  
c) Organizing the data into meaningful patterns  
d) Storing the data for future reference
17. A researcher wants to study the behaviors of students in a classroom. Which data collection method is suitable?  
a) Observation                      b) Survey                      c) Interview                      d) Experiment
18. Which data collection method allows for privacy of respondents?  
a) Self administered questionnaire                      b) Face – to – Face interview  
c) Group discussion                      d) Phone interview
19. Which data collection method involves gathering information from a predefined list of questions asked to individuals or a group?  
a) Questionnaire                      b) Interview                      c) Observation                      d) Experiment
20. What is the purpose of data cleaning in the data collection process?  
a) To ensure data accuracy                      b) To analyze and interpret the data  
c) To select an appropriate sample size                      d) To conduct pilot study

21. Which of following statement is correct?  
a) Reliability ensures validity  
b) Validity ensures reliability  
c) Reliability and validity are independent of each other  
d) Reliability does not depend on objectivity
22. The first step of research is  
a) Selecting a problem  
b) Searching a problem  
c) Finding a problem  
d) Identifying a problem
23. Research can be classified as  
a) Basic , applied and action  
b) Historical and survey  
c) Quantitative and qualitative  
d) All of these
24. Bibliography given in a research report  
a) Shows vast knowledge of researcher  
b) Helps those interested in further research  
c) Has no relevance to research  
d) All of these
25. The study in which investigators attempt to trace an effect is known as  
a) Survey research  
b) Summative research  
c) Historical research  
d) Ex-post facto research
26. The main characteristic of scientific research is  
a) Empirical  
b) Theoretical  
c) Experimental  
d) All of these
27. Authenticity of research finding is  
a) originality  
b) validity  
c) objectivity  
d) all of these
28. Research problem is selected from  
a) Researcher's interest  
b) Financial support  
c) Social relevance  
d) Relevant literature
29. The research is always  
a) Verifying old knowledge  
b) Exploring new knowledge  
c) Filling the gap between knowledge  
d) All of these
30. Research is  
a) Searching again and again  
b) Finding solution to any problem  
c) Working in scientific research to search for truth of a problem  
d) None of these
31. The type of research involves the study and interpretation of past events to understand the present and future potential outcomes is  
a) Historical research  
b) Action research  
c) Survey research  
d) Experimental research



32. \_\_\_\_\_ focuses on solving local problems through cyclic process of planning , acting , observing and reflecting.
- a) Historical research
  - b) Action research
  - c) Survey research
  - d) Experimental research
33. The type of research aims to assess the current status or characteristics of population by collecting data through interviews.
- a) Historical research
  - b) Action research
  - c) Survey research
  - d) Experimental research
34. \_\_\_\_\_ Research is conducted in controlled settings to test hypotheses by manipulating one or more variables to determine their effect on other variables.
- a) Historical research
  - b) Action research
  - c) Survey research
  - d) Experimental research
35. The main purpose of research in education is to
- a) Increase social status
  - b) Increase job prospectus
  - c) Increase personal growth
  - d) Increase candidate become eminent educationist
36. The primary benefit of multidisciplinary research.
- a) It allows researchers to focus on a single area of expertise
  - b) It fosters collaboration and knowledge
  - c) It simplifies research process
  - d) It eliminates need for data analysis
37. What is the purpose of multidisciplinary team in a research setting?
- a) To share research findings with wider audience
  - b) To address complex research problems
  - c) To limit the scope of research project
  - d) To make the research process streamlined
38. The type of research aims to explore and describe
- a) Quantitative method
  - b) Qualitative method
  - c) Mixed method
  - d) Scientific research
39. The type of qualitative research describes experience as they lived
- a) Ethnography
  - b) Historical
  - c) Phenomenology
  - d) Case study
40. The purpose of research presents a picture of specific details of social setting or relationship.
- a) Exploratory
  - b) Explanatory
  - c) Descriptive
  - d) Quantitative
41. Action research is
- a) Applied research
  - b) Research to solve immediate problems
  - c) Longitudinal research
  - d) all of these
42. The process not needed in experimental research is
- a) Observation
  - b) Manipulation
  - c) Replication
  - d) Reference collection

43. Field work based research is  
a) Empirical                      b) Historical                      c) Experimental                      d) Biographical
44. Which one is called non – probability sampling?  
a) Cluster sampling                      b) Quota sampling  
c) Systematic sampling                      d) Random sampling
45. The research that applies the laws at the time of field study is  
a) Applied research                      b) Action research  
c) Experimental research                      d) None of these
46. Which of the following is not a common type of quantitative research design?  
a) Correlational                      b) Experimental  
c) Case study                      d) Quasi – Experimental
47. What is the most common method of data collection in quantitative research?  
a) Interviews                      b) Focus groups                      c) Observation                      d) Surveys
48. Which of the following is not a key characteristics of quantitative research?  
a) Objective                      b) Systematic                      c) Subjective                      d) Structured
49. What is the purpose of pilot study in quantitative research?  
a) To test the feasibility of research design  
b) To provide overview of study population  
c) To collect preliminary data for use in final analysis  
d) To ensure ethical treatment of participants
50. Which of the following is an example of nominal level of measurement?  
a) Age                      b) Weight                      c) Gender                      d) Income

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