

--	--	--	--	--	--	--	--	--	--



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

M.Tech II Semester End Examinations (Regular) - July, 2018

Regulation: IARE-R16

RESEARCH METHODOLOGY

Time: 3 Hours

(Common to All Branches)

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

1. (a) Distinguish between research methods and methodology. Illustrate with real time example. [7M]
 (b) List and explain the criteria of a good research and classify the techniques for good research. [7M]
2. (a) “A research scholar has to work as a judge and derive the truth and not as a pleader who is only eager to prove his case in favour of his plaintiff”. Discuss the statement pointing out the objectives of research. [7M]
 (b) What are the features of good design? Explain the components of a research plan. [7M]

UNIT – II

3. (a) Are you in agreement with the following statements? If so, give reasons [7M]
 - i. Validity is more critical to measurement than reliability
 - ii. Stability and equivalence aspects of reliability essentially mean the same thing
 - iii. Content validity is the most difficult type of validity to determine
 - iv. There is no difference between concept development and concept specification
 - v. Reliable measurement is necessarily a valid measurement.
 (b) Point out the possible sources of error in measurement. Describe the tests of sound measurement. [7M]
4. (a) List and explain the techniques of developing measurement tools. [7M]
 (b) Describe the various scale classification bases and classification techniques. [7M]

UNIT – III

5. (a) Discuss interview as a technique for data collection and data analysis. [7M]
 (b) Examine the merits and limitations of the observation method in collecting material. Illustrate your answer with an example. [7M]
6. (a) Describe some of the major projective techniques and evaluate their significance as tools of scientific social research. [7M]
 (b) Explain fully the survey method of research with an example. [7M]

UNIT – IV

7. (a) Mention the different types of reports, particularly pointing out the difference between a technical report and a popular report. [7M]
- (b) Explain the technique and importance of oral presentations of research findings. Is only oral presentations sufficient? If not, why? [7M]
8. (a) Explain how rewriting and polishing of a report is very important. [7M]
- (b) Write a brief note on the “task of interpretation” in the context of research methodology. [7M]

UNIT – V

9. (a) Explain the patent application process and write the patent stages in detail. [7M]
- (b) Explain different types of intellectual property in detail. [7M]
10. (a) Explain about international organizations, agencies and treaties. [7M]
- (b) Explain the importance of plagiarism check in research report. [7M]

– o o ○ o o –