

**RESEARCH METHODOLOGY AND IPR
(ECEN 5103)**

Time Allotted : 2½ hrs

Full Marks : 60

Figures out of the right margin indicate full marks.

*Candidates are required to answer Group A and
any 4 (four) from Group B to E, taking one from each group.*

Candidates are required to give answer in their own words as far as practicable.

Group – A

1. Answer any twelve:

12 × 1 = 12

Choose the correct alternative for the following

- (i) A concession equal to the following % is given to start-ups
(a) 80% (b) 50% (c) 40% (d) 60%
- (ii) Detection of problem papers may lead to
(a) withdrawal of the paper (b) banning the author for up to 5 years
(c) both penalties (d) no penalty.
- (iii) In diagnostic research studies, the parameter which is measured is
(a) the hypothesis (b) the characteristics of an individual
(c) the frequency of occurrence (d) none of these.
- (iv) For report writing, the first steps are
(a) logical analysis of the subject matter (b) preparation of the final outline
(c) this sequence is correct (d) the sequence is wrong.
- (v) A major concern for IP enforcement is
(a) delays (b) law deficiency
(c) lack of transparency (d) all of these.
- (vi) In order to be recognised, a report should be published in a
(a) Peer reviewed journal (b) Any paid journal
(c) Journal without even ISBN (d) None is true
- (vii) The index at the end of the report helps to
(a) identify the chapters (b) identify the tables
(c) identify the graphs (d) identify the total contents of the report
- (viii) Drillbit is a
(a) Circuit building simulator (b) Plagiarism checker
(c) Hardware tool (d) None of these.

- (ix) The researcher must satisfy himself that the data are
 (a) Appropriate (b) Trustworthy
 (c) Adequate (d) All three
- (x) Plagiarism can be of
 (a) Four types (b) Three types
 (c) One type (d) Two types.

Fill in the blanks with the correct word

- (xi) 'Turnitin' is a software to check _____.
- (xii) Publications must be in _____ reviewed _____.
- (xiii) To ensure your work is original, literature _____ is a must.
- (xiv) The Apple logo is protected by _____ IP.
- (xv) Conclusion about causality can be drawn in _____ type research.

Group - B

2. (a) The scientific method of research is based on certain postulates. State any 4 of them. [[CO2](Remember/LOCQ)]
- (b) Draw the research process in a flow chart. Describe the function of each block. Why is the Feed Back from the 'Analyse Data' block important? [[CO2](Analyse/IOCQ)]
- 6 + 6 = 12**
3. Explain how the research design is planned and the algorithm, which helps to plan. Sample design is very important so that the results are convincing and acceptable. State some factors, which are taken into account to determine the sampling type or design. [[CO2](Analyse/IOCQ)]
- (6 + 6) = 12**

Group - C

4. (a) While writing a paper, the author must follow some ethics. Where do the students learn ethical decision making? What are the criteria for 'A Publishable' and 'A not acceptable' paper? [[CO3](Understand/LOCQ)]
- (b) Define 'Authorship' of a paper and describe the responsibilities of an author. [[CO3](Understand/LOCQ)]
- 6 + 6 = 12**
5. What is Plagiarism in relation to a manuscript? Explain in your own words. What is the difference between Plagiarism and Self – Plagiarism? What is research misconduct? Explain briefly. [[CO4](Understand/IOCQ)]
- (4 + 4 + 4) = 12**

Group - D

6. Why is oral presentation accepted as a better means of presenting the results? What is the mechanics of writing a research report? Explain the importance of footnotes in your own words.
[[C04](Understand/IOCQ)]
(3 + 5 + 4) = 12
7. (a) A number of precautions are to be exercised at the time of writing research reports. Mention any six of them.
[[C04](Remember/LOCQ)]
(b) What are the importance of charts, graphs, and index in a report?
[[C04](Remember/LOCQ)]
8 + 4 = 12

Group - E

8. Items of intellectual properties can be classified into two main categories. What are they? Explain the two with examples and explanations. Basmati Rice and Darjeeling Tea – can they be protected by IPR laws? Explain.
[[C06](Analyse/IOCQ)]
(2 + 6 + 4) = 12
9. What are the facilities offered by the Design wing to applicants? Why is Trade Mark important? Items of Intellectual Properties can be classified into two main categories. What are they? Describe the two categories.
[[C05](Analyse/IOCQ)]
(4 + 8) = 12

Cognition Level	LOCQ	IOCQ	HOCQ
Percentage distribution	31.25	68.75	0

