

**RESEARCH METHODOLOGY AND IPR  
(ECE5103)**

**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) 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
- (ii) 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
- (iii) Turnitin is a  
(a) Circuit building simulator (b) Plagiarism checker  
(c) Hardware tool (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) 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
- (vi) Trademark gives unique identity to  
(a) Software (b) Circuits  
(c) Written works (d) Goods and services
- (vii) A concession equal to the following % is given to start-ups  
(a) 80% (b) 50% (c) 40% (d) 60%
- (viii) Patents protect  
(a) Signs (b) Logos (c) Designs (d) Any of these
- (ix) A major concern for IP enforcement is  
(a) Delays (b) Law deficiency  
(c) Lack of transparency (d) All of these

- (x) The researcher must satisfy himself that the data are  
 (a) Appropriate (b) Trustworthy  
 (c) Adequate (d) All three

*Fill in the blanks with the correct word*

- (xi) Conclusion about causality can be drawn in \_\_\_\_\_ type research.  
 (xii) COI stands for \_\_\_\_\_ of \_\_\_\_\_ .  
 (xiii) Publications must be in \_\_\_\_\_ reviewed \_\_\_\_\_ .  
 (xiv) The hp (Hewlett Packard) logo is protected by \_\_\_\_\_ IP.  
 (xv) \_\_\_\_\_ research tries to find solution for an immediate problem.

### **Group - B**

2. (a) There are usually, three research methods- Library, Field, and Laboratory research. The techniques or methodology associated with each are different. State the techniques for any two of these methods. *[[CO2](Understand/IOCQ)]*  
 (b) The researcher has to know not only the methods but also the relevance of the different possible methods. Explain briefly. *[[CO2](Understand/IOCQ)]*  
**8 + 4 = 12**
3. (a) How is the research problem formulated? Extensive literature survey is an integral part of a research work – explain. *[[CO2](Analyse/IOCQ)]*  
 (b) Why is a working hypothesis essential? Give some means in which the hypothesis can be developed. *[[CO2](Understand/LOCQ)]*  
**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. (a) What is plagiarism? How is it detected? Name a few powerful checker used globally. What are the general responses to complaints of plagiarism from the authors? *[[CO3](Analyse/HOCQ)]*  
 (b) When writing a paper, how will you proceed to keep plagiarism to a minimum? *[[CO4](Analyse/LOCQ)]*  
**8 + 4 = 12**

## Group - D

6. How do the collection and analysis of data help the researcher to write a report? What precautions one should take while writing the report? What is meant by interpretation? Why is interpretation necessary?  
[[CO4](Understand/IOCQ)]  
**(3 + 3 + 2 + 4) = 12**
7. 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.  
[[CO4](Understand/IOCQ)]  
**(3 + 5 + 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.  
[[CO6](Analyse/IOCQ)]  
**(2 + 6 + 4) = 12**
9. (a) What are the facilities offered by the Trade Marks Registry to the applicants? List them.  
[[CO6](Remember/LOCQ)]  
(b) Describe the normal facilities offered by the Patents Office. What is the concession for small entities?  
[[CO6](Remember/LOCQ)]  
**6 + 6 = 12**

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Cognition Level	LOCQ	IOCQ	HOCQ
Percentage distribution	35.42	56.25	8.33

