

Reg. No.

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M.E / M.TECH. DEGREE EXAMINATIONS, MAY 2023

Second Semester

GR22251 – INTRODUCTION TO RESEARCH METHODOLOGY AND IPR

(Common to all branches)

(Regulation 2022)

TIME: 3 HOURS

MAX. MARKS: 100

| COURSE OUTCOMES | STATEMENT | RBT LEVEL |
|-----------------|---|-----------|
| CO 1 | Critically evaluate any research article based upon research methodology. | 5 |
| CO 2 | Correlate the results of any research and develop hypothesis, concept, theory and model. | 4 |
| CO 3 | Developing a research proposal, research presentation and review article in the field of engineering. | 3 |
| CO 4 | Enumerate the importance of intellectual property right in research. | 3 |
| CO 5 | Develop proposal for patent rights and identify the new developments in IPR | 4 |

PART- A (20 x 2 = 40 Marks)

(Answer all Questions)

| | CO | RBT LEVEL |
|---|----|-----------|
| 1. State Deductive Reasoning with example. | 1 | 2 |
| 2. Write the significance of effective literature survey. | 1 | 2 |
| 3. Justify the requirement of R&D for any organization is inevitable. | 1 | 4 |
| 4. Infer Self plagiarism. | 1 | 4 |
| 5. Explain in brief the stages in data processing. | 2 | 2 |
| 6. Write the importance of negative results. | 2 | 2 |
| 7. Is there any difference between hypothesis and scientific theory? Explain. | 2 | 4 |
| 8. List the types of Non-probability sampling. | 2 | 2 |
| 9. Give the structure for preparing a technical report. | 3 | 3 |
| 10. Elucidate steps in writing a research report. | 3 | 2 |
| 11. Elaborate a steps to calculate a impact factor for a particular journal. | 3 | 3 |
| 12. Differentiate h-index and i10-index. | 3 | 2 |
| 13. Distinguish IP, IPR and IPP. | 4 | 2 |
| 14. With example differentiate between these two terms Creativity and Innovation. | 4 | 2 |
| 15. How long does the right remain a right for the copyright and related rights? | 4 | 2 |
| 16. List the role of World Trade Organization. | 4 | 2 |
| 17. Explain about provisional and complete application with respect to patent. | 5 | 3 |

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|-----|--|---|---|
| 18. | Identify the law which protects the logos of companies? Give few examples. | 5 | 3 |
| 19. | List the patent office in India and its category. | 5 | 2 |
| 20. | Name at least 5 geographical indications tagged products in India. | 5 | 2 |

PART- B (5 x 10 = 50 Marks)

| | | Marks | CO | RBT LEVEL |
|---------|---|-------|----|--------------|
| 21. (a) | Discuss the importance of selecting research problem. | (10) | 1 | 3 |
| | (OR) | | | |
| (b) | Brief the advantages of data collection tools and mention any two tools used. | (10) | 1 | 3 |
| 22. (a) | Discuss the various types of result analysis and how will you apply them for various types of research? | (10) | 2 | 3 |
| | (OR) | | | |
| (b) | Explain the importance of hypothesis. Discuss different types of hypothesis. | (10) | 2 | 3 |
| 23. (a) | Discuss the steps that a researcher needs to follow to formulate a good research report. Do the criteria become different for various reports? Justify. | (10) | 3 | 3 |
| | (OR) | | | |
| (b) | Discuss in detail about the importance and content in the cover letter for journal publication with example. | (10) | 3 | 3 |
| 24. (a) | Explain the merits and demerits of patent and non-patent practices in the commercial business world. | (10) | 4 | 4 |
| | (OR) | | | |
| (b) | Differentiate between Trademark and design with example. | (10) | 4 | 4 |
| 25. (a) | Explain with flow diagram the stages of filing to grant of patent. | (10) | 2 | 3 |
| | (OR) | | | |
| (b) | Explain about the Scope of Patent Rights. | (10) | 2 | 3 |

PART- C (1 x 10 = 10 Marks)

(Q.No.26 is compulsory)

| | | Marks | CO | RBT LEVEL |
|-----|--|-------|----|--------------|
| 26. | Tirupathi Laddu got a Geographical Index status what is the benefit out of it and explain methods to obtain Geographical Index of patent rights. | (10) | 5 | 5 |
