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R19

Code No: 5621AJ

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech I Semester Examinations, January - 2020

RESEARCH METHODOLOGY AND IPR

(Thermal Engineering)

8R 8R

Time: 3hrs

Max.Marks:75

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

8R 8R 8R 8R **PART - A** 8R

5 × 5 Marks = 25

- 1.a) What are the various sources of Research Problem? [5]
- b) Why research ethics is important? Explain. [5]
- c) Discuss briefly the effective way of writing the technical report. [5]
- d) What is Patent? Explain about copyright. [5]
- e) Explain new developments in IPR system. [5]

PART - B

5 × 10 Marks = 50

- 2.a) Explain the importance of scope and objectives of research problem. [5+5]
- b) Why data collection is important? Discuss. [10]
- 3. Elucidate any two multivariate techniques used in data analysis. [10]
- 4.a) Explain the process of writing review of literature for any Business research. [5+5]
- b) Critically examine the role of review committee in the research process. [10]
- 5. Elucidate the different ethical dilemmas and responsibilities of researchers, sponsors and research assistants. [10]
- 6. Explain the various types of research reports. [10]
- 7. Elucidate the format of writing a good research report. [10]
- 8. Explain procedure for grants of patents. [10]
- 9.a) Explain the international scenario on Patent. [5+5]
- b) Explain about design and trade in intellectual property. [10]
- 10.a) Elucidate the scope of Patent rights. [5+5]
- b) What is transfer of technology? Discuss. [10]
- 11. Explain the IPR of Biological and Computer software. [10]