Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec – 2019**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **18MS3104** | **Duration :** | **3hrs** |
| **Sub. Name :** | **RESEARCH METHODOLOGY AND IPR** | **Max. Marks :** | **100** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course Outcome** | **Marks** |
|  |  | **ANSWER ANY FIVE QUESTIONS (5 x 16 = 80 Marks)** |  |  |
| 1. | a. | Explain the different sources of research problem. Also, outline the criteria and characteristics of a good research problem. | CO5 | 12 |
| b. | List the common errors in selecting a research problem. | CO2 | 4 |
|  |  |  |  |  |
| 2. |  | Illustrate the different methods of data collection with a neat flow diagram. | CO2 | 16 |
|  |  |  |  |  |
| 3. |  | Elaborate on the different ways of writing a good research paper. Provide suitable examples to support your answer. | CO6 | 16 |
|  |  |  |  |  |
| 4. | a. | Illustrate the procedure of applying for a patent with a neat flow diagram. | CO1 | 12 |
| b. | Outline the significance of patents in any research work. | CO3 | 4 |
|  |  |  |  |  |
| 5. | a. | Explain the role of information technology and the different databases available for patents. | CO3 | 10 |
| b. | Summarize the rights and ownership details of the patent applicant. | CO4 | 6 |
|  |  |  |  |  |
| 6. |  | Elaborate on the concepts of plagiarism and ethics in any research work. | CO5 | 16 |
|  |  |  |  |  |
| 7. | a. | “Data analysis is necessary for ensuring the accuracy of any research work”. Justify this statement. | CO2 | 10 |
| b. | Outline the significance of literature survey in any research work. | CO6 | 6 |
| **COMPULSORY QUESTION (1 x 20 = 20 Marks)** | | | | |
| 8. | a. | Discuss in detail the role of computer softwares in Intellectual Property Rights. | CO4 | 10 |
| b. | Explain the role of Intellectual Property Rights in biological systems. | CO4 | 10 |