

Total No. of Questions : 4]

SEAT No. :

**P5020**

[Total No. of Pages : 1

[6187]-420

**T.E. (Civil Engineering) (Insem)**

**RESEARCH METHODOLOGY AND IPR**

**(2019 Pattern) (Semester - I) (Elective - I) (301005(B))**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data if necessary.*

**Q1) a)** What do you mean by research? Explain its significance in modern times. [7]

b) Write a short note on component of research problem. [8]

OR

**Q2) a)** Describe fully the techniques of defining a research problem. [7]

b) Indicate the main characteristics of a good hypothesis and uses of a hypothesis in various types of research studies. [8]

**Q3) a)** Examine the merits and limitations of the observation method in collecting material. Illustrate your answer with suitable examples. [7]

b) Write a short note on use of library in literature survey also state the precautions of library use in literature. [8]

OR

**Q4) a)** Enumerate the types of data and describe these types in detail with reference to tools, types of research and statistical techniques. [7]

b) Explain the need and functions of review of literature. [8]

