

Total No. of Questions :8]

SEAT No. :

P4016

[5255]-513

[Total No. of Pages : 2

M.E. (Civil - Structural Engineering)
RESEARCH METHODOLOGY TREATMENT
(2013 Pattern) (Semester - I) (501404)

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) Solve any five questions.*
- 2) Figures to the right indicate full marks.*

- Q1)** a) Explain the points to be considered while developing a research problem and hypothesis. **[5]**
- b) Explain the Research process in a flowchart. **[5]**
- Q2)** a) Discuss in brief the need of a research report. **[5]**
- b) Discuss the three tests of sound measurement: Test of validity, reliability and practicality. **[5]**
- Q3)** a) Explain in detail the secondary sources of data and explain its limitations. **[5]**
- b) What is Hypothesis? Explain Type I and type II errors. **[5]**
- Q4)** a) “Interpretation is a fundamental component of Research process”. Explain. **[5]**
- b) Explain the importance of a good literature review. **[5]**
- Q5)** a) Mention the methods of Factor Analysis. Explain in detail any one. **[5]**
- b) Write a note on advantage and limitation of Regression Analysis. **[5]**
- Q6)** a) Explain in detail Multicollinearity. **[5]**
- b) Enlist different hypothesis testing methods. Explain any two. **[5]**

P.T.O.

- Q7)** a) “Research report writing is and art and science as well”. Give your opinion on this statement considering the important components of report writing. [5]
- b) State the importance of references in scientific research. [5]

Q8) Write a research proposal for a suitable research problem (any problem related to civil engineering can be considered) to a funding agency with reference to the following terms: Title, Introduction, origin of the problem, expected outcome, literature review, Significance of the study in the context of current status, objectives, methodology, year wise plan. [10]

