

Total No. of Questions : 8]

SEAT No. :

P4570

[Total No. of Pages : 2

[4860] - 1031

M.E. (Civil) (Structural Engg.) (Semester - I)

RESEARCH METHODOLOGY

(2013 Credit Pattern)

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidates:

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

- Q1)** a) Explain the characteristics of research which uses scientific method. [5]
b) Write a note on “steps involved in publishing a research paper”. [5]
- Q2)** a) Explain why research is important to decide a economic system of a country. [5]
b) How do you define research problem? Give one example to illustrate your answer. [5]
- Q3)** a) Write a note on advantages and limitations of sources of Literature survey. [5]
b) Explain the concept of experimental design & Explain Experiment design procedure steps. [5]
- Q4)** a) Explain the various sources of error in measurement. [5]
b) Explain why a good literature survey is important to narrow the research problem and the technique that might be used [5]
- Q5)** a) Explain Type I and Type II error in testing hypothesis. [5]
b) Write a note on ‘Characteristics of Chi-Square test’. [5]

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- Q6)** a) Enlist non-parametric tests for hypothesis testing and explain Wilcoxon Rank Sum Test. [5]
b) Distinguish between Parametric tests and Non-parametric tests for hypothesis testing. [5]
- Q7)** a) Discuss the important factors to be considered during presenting a research idea. [5]
b) Write a note on “Process for patenting a research idea”. [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]

