

[5155] - 269
M.E. (Computer Engineering)
RESEARCH METHODOLOGY
(2013 Pattern)

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidates :

- 1) *All Questions are compulsory.*
- 2) *Neat diagram must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data if required.*

Q1) a) Research is much concerned with proper fact finding, analysis and evaluation.” Do you agree with this statement? Give reasons in support of your answer. **[8]**

OR

(b) What is the difference between research methods and methodology? Explain research process in detail? **[8]**

Q2) a) What is research problem? Define the main issues which should receive the attention of the researcher in formulating the research problem. Give suitable example to clarify your points. **[9]**

OR

b) What is hypothesis and hypothesis formulation? What characteristics it must possess in order to be a good research hypothesis? **[9]**

Q3) a) Explain the meaning of research design and its category. **[8]**

OR

b) Choose any research problem in computer engineering field to conduct the research. State different research designs and select suitable research design method for the problem you identified and justify why you selected that particular design method. **[8]**

P.T.O.

- Q4) a)** Enumerate the different methods of collecting data. Which one is the most suitable for conducting enquiry regarding family welfare program in India? Explain its merits and demerits. **[8]**

OR

- b) Explain the use of analysis of variance (ANOVA) and covariance (ANACOVA). Briefly explain multivariate ANOVA. **[8]**

- Q5) a)** What are the various Kinds of charts and diagrams which are used in data analysis? Distinguish Between line chart, bar chart and histogram. **[8]**

OR

- b) Distinguish between primary data secondary data and enlist the important methods of collecting primary data. **[8]**

- Q6) a)** State in brief layout of research report and Discuss the role played by bibliography in context of research report. **[9]**

OR

- b) What is the queuing theory? What is little's law and explain its use in queuing theory with suitable examples. **[9]**

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