

**R07****Code No: MA113****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MBA - I Semester Examinations, February 2011****RESEARCH METHODOLOGY AND STATISTICAL TOOLS****Time: 3hours****Max. Marks: 60****Answer any five questions  
All questions carry equal marks**

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1. a) "Statistical Methods are most dangerous tools in the hands of inexpert."  
Examine this statement.  
b) How are statistical methods are helpful in business and industry?
2. a) What are the characteristics of a good questionnaire? Distinguish clearly  
between structured and unstructured questionnaire.  
b) Why sampling and what are the different types of random sampling?
3. a) Briefly explain the features of a good research design.  
b) Distinguish and differentiate the following
  - i) Sampling error and standard error
  - ii) Attributes and variables
  - iii) Confidence level and significance level
  - iv) Statistic and parameter.
4. Calculate the quantile deviation and the coefficient of quantile deviation  
from the following given data.

<u>Farm size (in sq.m)</u>	<u>No. of farms</u>
Below 40	394
41 – 80	461
81 – 120	391
121 – 160	334
161 – 200	169
201 – 240	113
241 and above	148

5. Results of a survey conducted to study the relationship between expenditure  
(in Rs) on accommodation and expenditure on food and entertainment are  
given below.

<u>deviation</u>	<u>Mean</u>	<u>Standard</u>
Expenditure on accommodation	173	63.15
Expenditure on food and entertainment	47.8	22.98
Coefficient of correlation	= 0.57	

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Write down the regression equation and estimate the expenditure on food and entertainment if the expenditure on accommodation is Rs.200.

6. The following figures related to the number of units of a product sold in five different areas by four salesmen.

Area	Number of Units sold			
	A	B	C	D
1	80	100	95	70
2	82	110	90	75
3	88	105	100	82
4	85	115	105	88
5	75	90	80	65

Is there any significant difference in the efficiency of these salesmen?

7. The following data results to the tourist arrivals (in millions) during 2004 to 2010 in India.

Year	:	2004	2005	2006	2007	2008	2009	2010
Tourist arrivals:		18	20	23	25	24	28	30

Fit a straight line trend by least squares method and estimate the number of tourists that would arrive in the year 2012.

8. Explain the advantages of SPSS packages in business management applications, with a special reference to marketing research.

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