



M 25150

Reg. No. :

Name :

II Semester M.A./M.Sc./M.Com. Degree (Reg./Sup./Imp.)
Examination, March 2014
COMMERCE
Paper – VI : Research Methodology and Statistical Techniques

Time : 3 Hours

Max. Marks : 80

Instruction : Answer all Sections.

SECTION – A

Note : Answer **any five** questions. All questions carry **equal** marks : **(5×8=40)**

1. What is research ? Explain the significance of research in modern times.
2. What is a research report ? Discuss the types of report used for reporting research.
3. Explain the steps followed for defining a research problem.
4. What is hypothesis ? What are the sources of hypothesis ?
5. What is exploratory research design ? Explain the methods used for such design.
6. Explain each of the following terms :
 - i) Type I and Type II errors.
 - ii) Statistics and Parameter.
 - iii) Population and Sample.
7. Write short notes on each of the following :
 - i) Stratified sampling.
 - ii) Judgement sampling.
8. Briefly explain the procedure generally followed in testing of a hypothesis. Point out the difference between the one-tail and two-tail tests.

P.T.O.



SECTION – B

Note : Answer **any two** questions. **All** questions carry **equal** marks : **(2×20=40)**

9. Two laboratories are independently producing drugs that provide relief to arthritis sufferers. The first drug is tested on 200 arthritis victims and 120 got relief. The second drug is tested on 150 victims and 80 got relief. Test that the effectiveness of two drugs at 5% level of significance does not differ significantly.
10. A sample analysis of an examination result of 200 students were made. It was found that 46 students had failed, 68 secured third class, 62 second class and the rest were placed in the first division. Are these figures commensurate with the general examination results which is in the ratio 2 : 3 : 3 : 2 for various categories respectively.
11. Three different machines are used for a production. On the basis of the outputs, test whether the machines are equally effective.

Outputs		
Machine 1	Machine 2	Machine 3
10	9	20
5	7	16
11	5	10
10	6	14

(Given : Value of F at 5% level of significance with (2, 9) d.f = 4.26)

12. The increase in weights due to two kinds of food are given below. Can it be said that food B is better than A ?

Food A :	49	53	51	52	47	50	52	53
Food B :	52	55	52	53	50	54	54	53