



SRN – 14

**M.Com. (Semester – I) Examination, April 2016**  
**COC – 102 : BUSINESS STATISTICS (OA 18)**

Duration : 3 Hours

Total Marks : 60

**Instructions :** 1) This paper consist of **nine (9)** questions carrying **equal** marks.

2) Question No. 1 consist of **5 compulsory** questions of **2 marks each**.

3) Answer **any five (5)** questions from **2, 3, 4, 5, 6, 7, 8, 9**.

4) Tables to be provided **wherever** required.

1. Answer the following questions.

(2×5=10)

i) Importance of Literature review in Research.

ii) Properties of 'T' distribution test

iii) Evaluation of research report.

iv) State the various components of time series.

v) An automobile driver travels from plain to hill station 100 km. distance at an average speed of 30 km. per hour. He then makes the return trip at average speed of 20 km.per hour. What is his average speed over the entire distance (200 km) ?

2. The following table gives the distribution of the total population and those who are totally or partially blind among them. Find out if there is any relation between age and blindness.

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Age (years)	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of persons ('000)	100	60	40	36	24	11	6	3
Blind	55	40	40	40	36	22	18	15

3. In a certain district A, 450 persons were considered regular consumers of tea out of a sample of 1000 persons. In another district B, 400 were regular consumers of tea out of a sample of 800 persons. Do these facts reveal a significant difference between the two districts as far as tea drinking habit is concerned ? Use 5% level.

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4. Lives of two models of washing machines in recent survey are :

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Life (No. of years)	0-2	2-4	4-6	6-8	8-10	10-12
Model A	5	16	13	7	5	4
Model B	2	7	12	19	9	1

What is the average life of each of these washing machines ? Which model has greater uniformity ?

5. Use the data below, showing a summary of highway gas mileage for several observations, to decide if the average highway gas mileage is the same for midsize cars, SUV's, and pickup trucks. Test the appropriate hypotheses at the  $\alpha = 0.01$  level.

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	n	Mean	Std.Dev.
Midsize	31	25.8	2.56
SUV's	31	22.68	3.67
Pickups	14	21.29	2.76

6. Identification of research gap is an important aspect research process. Discuss how does the research gaps can be identified and how it will be useful in development of research hypothesis.
7. Discuss the various methods of primary and secondary data collection.
8. How would you plan your research report writing ? Explain the various types of research report formats and importance of bibliography in research report.
9. A carefully designed "sample survey" is said to be better than a poorly planned and executed "census". Bringout the merits of sample method of enquiry and at least three of the methods to obtain representative data in a sample.