Il Semester B.Com. Examination, May/June 2014 (Semester Scheme) (2012 – 13 & Onwards) COMMERCE (Fresh+Repeaters)

Paper - 2.6: Quantitative Analysis for Business Decisions - I

Time: 3 Hours

Max. Marks:100

Instruction: Answers should be written completely either in English or in Kannada.

SECTION - A

Answer any ten sub-questions. Each carries two marks.

 $(10 \times 2 = 20)$

- 1. a) What is an inclusive series? Give an example.
 - b) Mention any four functions of Statistics.
 - c) Define the term mode.
 - d) State any four requisites of good average.
 - e) What is standard deviation?
 - f) What is Base Year?
 - g) Give the meaning of Factor Reversal test.
 - h) What is an Index Number?
 - i) Why index numbers are called Economic Barometers.
 - j) What is qualitative classification.
 - k) Mention the parts of table.
 - 1) State any two merits and any two demerits of standard deviation.



SECTION - B

Answer any four questions. Each carries eight marks.

 $(4 \times 8 = 32)$

2. Find mean deviation from mean from the following;

`Income (₹) (Less than)	500	1000	1500	2000	2500
No. of Persons	20	35	50	80	100

3. The following data relate to monthly expenditure of two families A and B.

Items	Family A Expenditure (₹)	Family B Expenditure
Food	160	100
Clothing	80	30
Rent	60	40
Fuel	20	10
Others	80	20

Represent the data by a suitable percentage diagram.

4. Rainfall for a month as recorded in an observation is as follows:

Days	Sun.	Mon.	Tue.	Wed.	Thur.	Fri.	Sat.
Rainfall in mm	87	63	74	56	62	85	73

If there are 5 Mondays, Tuesdays and Wednesdays, 4 Sundays, Thursdays, Fridays and Saturdays calculate the daily average monthly rainfall during the month.



5. Calculate Median from the following series.

Class	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 –34	35 – 39
Frequency	05	13	23	35	26	18	15	08

6. Construct the consumer price index number for 2007 on the basis of 2002, from the following data using family Budget Method.

Commodity	Commodity	Price (₹)		
	Consumed in 2002	2002	2007	
A	12	50	60	
В	8	40	45	
C	4	70	80	
D	9	70	90	
E	5	20	40	
F	2	200	200	

SECTION - C

Answer any three questions. Each carries 16 marks.

 $(3 \times 16 = 48)$

7. Convert the following distribution into more than cumulative frequency and less than cumulative frequency and find the median graphically. And also verify the result of actual calculation.

Wages (₹)	0 – 20	20 – 40	40 – 60	60 – 80	80 – 100
No. of Workers	82	112	150	95	48



8. Calculate Karl Pearson's co-efficient of skewness for the following frequency distribution of profits earned by 100 partnership firms during the year 2013.

Profits (in	₹ '000')	No. of Partnership Firms
More than 10		100
11	20	97
11	30	90
11	40	70
11	50	40
11	60	25
"	70	15
μ	80	08
"	90	03

9. With the help of following data, calculate Fisher's Ideal Index Number and prove that it satisfies both Time Reversal Test and Factor Reversal Test.

	Bas	e Year	Current Year		
Commodities	Price per Unit	Total Expenditure	Price per Unit	Total Expenditure	
1	2	40	5	75	
2	4	16	8 .	40	
3	1	10	2	24	
4	5	25	10	60	



10. An analysis of monthly wages paid to workers in the firms A and B belonging to the same industry gives the following results.

	Firm A	Firm B
No. of Workers	500	600
Average monthly wages (₹)	480	475
Variance of distribution of wages (₹)	400	625

- a) Which firm pays a larger wage bill.
- b) In which firm is there greater variability in individual wages.
- c) Find out the combined Average Wages of the two firms taken together.