Date : 04-11-2011	Dept. No.		Max. : 100 Marks
Time : 9:00 - 12:00			

PART – A

Answer **ALL the** questions   **(10x2=20 Marks)**

1. Define chain base index numbers with an example.
2. Mention any two uses of index numbers.
3. Define a 'Time series'.
4. Write any two applications of Time – Series.
5. Explain the meaning of vital statistics.
6. Briefly explain mortality table.
7. Distinguish between partial and multiple correlation coefficients.
8. Write any two properties of multiple correlations.
9. Define financial statistics
10. Define national income.

PART – B

Answer any **FIVE** questions   **(5x8=40 Marks)**

11. Explain the construction of weighted index numbers.
12. Compute price index and quantity index numbers for the year 2005 with 200 as base year, using (1) Laspeyre's Method and (ii) Paasche's Method.

Commodity	Quantity (units)		Expenditure (Rs.)	
	2000	2005	2000	2005
A	100	150	500	900
B	80	100	320	500
C	60	72	150	360
D	30	33	360	297

13. Explain the method moving averages in measuring trend.
14. Describe the method of finding seasonal variation using ratio to moving average method.
15. Explain specific death rate and specific fertility rate.
16. Describe multiple correlation and its properties..
17. Write a detailed note on NSSO.
18. Compute (i) General Fertility Rate (ii) Specific Fertility Rate and (iii) Total Fertility Rate, from the data given below.

Age group of child bearing females:	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Number of women ('000)	16.0	16.4	15.8	15.2	14.8	15.0	14.5
Total Births	260	2244	1894	1320	916	280	145

PART – C

19. (a) Explain the components of Time Series.

    (b) Discuss the limitations of index numbers.

20. (a) Explain seasonal variation in a time series. Also explain the link relative method of computing the indices of seasonal variation.

    (b) A study of demand (d_t) for the past 12 years (t=1,2,…,12) has indicated the following: 100, 105, 110, 112, 115, 120, 126, 130, 140, 145, 150, 160. Compute a five year moving average.

21. (a) Explain vital statistics in detail with examples.

    (b) Compute the crude and standardized death rates of the two populations A and B, regarding A as standard population, from the data in following table:

Age-group (Years)	A Population	A Deaths	B Population	B Deaths
Under 10	20000	600	12000	372
10-20	12000	240	30000	660
20-40	50000	1250	62000	1612
40-60	30000	1050	15000	525
Above 60	10000	500	3000	180

22. (a) Explain, live stock and agriculture statistics.

    (b) Explain the following: (i) Gross reproduction rate (ii) Net reproduction (iii) De Facto and De Jure method.

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