

M.A. (Applied Economics) (New CBCS Pattern) Semester - II
ECO2203.1 / 003 - Statistics for Economics - II

P. Pages : 2

Time : Three Hours



GUG/S/23/12100

Max. Marks : 80

- Notes : 1. All questions are compulsory.
2. All questions are carry equal marks.

1. What is Sample Survey? What are the advantages of Sample Survey? 16
नमुना सर्वेक्षण म्हणजे काय? नमुना सर्वेक्षणाचे फायदे कोणते?

OR / किंवा

A brochure inviting subscriptions for a new diet program states that the participants are expected to lose over 22 pounds in five weeks. Suppose that, from the data of five week weight losses of 56 participants, the sample mean and sample standard deviation are found to be 23.5 and 10.2, respectively could the statement in the brochure be substantiated on the basis of these findings? (Test at the $\alpha = .05$ level)

2. What is sample size? Write the importance in research? What is relation between sample size and statistical significance. 16
नमुना आकार म्हणजे काय? संशोधनातील त्याचे महत्त्व लिहा, नमुना आकार आणि सांख्यिकीय महत्त्व यांचा काय संबंध आहे.

OR / किंवा

In an experiment on the immunization of goats from anthrax. The following results were obtained. With the help of chi-square decide whether the vaccination is effective or not

	Died of Anthrax	Survived	Total
Inoculated with vaccine	7	35	42
Not inoculated	21	21	42
	28	56	84

3. Answers the following questions **any two**. 16

- a) What is projections of trends? Which are the methods of measuring trends in statistics.
प्रवृत्ती प्रक्षेपण म्हणजे काय? सांख्यिकीतील प्रवृत्ती मापनाच्या पध्दती कोणत्या आहेत?
- b) What is time series analysis? Write the importance.
काल माला विश्लेषण म्हणजे काय? काल माला विश्लेषणाचे महत्त्व लिहा.
- c) From the following data. Calculate 4 yearly moving average and determine the trend values.

Year	Value	Year	Value
1980	250	1985	238
1981	237	1986	233
1982	243	1987	242
1983	245	1988	241
1984	239	1989	234

- d) Find the trend use three yearly weighted moving average
The weights are 2 : 1 : 2

Year	1983	1984	1985	1986	1987	1988	1989
Value	10	12	15	16	18	19	20

4. Answers the following questions any two.

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- a) What is WPI (Wholesale Price Index) and CPI (Consumer Price Index) what are the components of WPI and CPI?

WPI आणि CPI म्हणजे काय? WPI आणि CPI चे घटक कोणते.

- b) Difference between WPI and CPI.

WPI आणि CPI मध्ये फरक लिहा.

- c) An inquiry into the budgets of middle class families gave the following information.

Expenses on	Food	Rent	Clothing	Fuel	Others
	30%	15%	20%	10%	25%
Price (₹) 2010	100	20	70	20	40
Price (₹) 2011	90	20	140	15	60

Compute the cost of living index number from the above information.

- d) Construct the cost of living index number from the following data.

Group	Weight	Group index number for given year
Food	52	250
Fuel	10	300
Clothing	15	225
House Rent	20	100
Misc.	8	150

5. Very short answer all questions are compulsory.

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- a) Random Sampling

यादृच्छिक नमुना

- b) Small Sample

लहान नमुना

- c) Delphi Method

डेलफी पद्धत

- d) Simple Index Number

साधा निर्देशांक
