SUBJECT CODE: 11EC/AC/SE14

## B.A. DEGREE EXAMINATION NOVEMBER 2011 <br> BRANCH IV - ECONOMICS <br> FIRST SEMESTER

| COURSE | : ALLIED - CORE |
| :--- | :--- |
| PAPER | : STATISTICS FOR ECONOMICS - I |
| TIME | $: 3$ HOURS |

SECTION - A
I. Answer ALL questions :-
(10x2=20marks)

1. Define Statistics.
2. Write a note on Secondary data.
3. What is meant by 'Tabulation' of data?
4. What are the different types of classification of data?
5. State any three properties of Averages.
6. Distinguish between Standard Deviation and Coefficient of Variation.
7. What is Lorenz curve?
8. Distinguish between Skewness and Kurtosis.
9. Given Q1= 15 and Q3=40, find Coefficient of Quartile deviation.
10. Write a note on Consumer Price Index.

## SECTION-B

II. Answer any FIVE questions :-
11. Point out the difference between Primary data and Secondary data.
12. Calculate Mean Deviation from Median for the following data:-

| X: | 10 | 11 | 12 | 13 | 14 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Frequency: | 3 | 12 | 18 | 12 | 3 |

13. From the following data, compute the value of Harmonic Mean:

| Marks | 10 | 20 | 30 | 40 | 50 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No: of Students | 20 | 30 | 50 | 15 | 5 |

14. ABC Ltd is actively considering the following two mutually exclusive projects for operation :

| YEAR | Project X- <br> cost profit (Rs Lakhs) | Project Y- <br> cost profit (Rs Lakhs) |
| :---: | :---: | :---: |
| 1 | 10 | 5 |
| 2 | 5 | 25 |
| 3 | 20 | 45 |
| 4 | 40 | 30 |
| 5 | 60 | 30 |

Which of the TWO is more risky project?
15. In a certain data, the following four main characteristics with their sub-characteristics are present:-
Main Characteristics
Locality
Religion
Sex
Age
Prepare a suitable Table.
16. Briefly explain the various uses of Index Numbers.
17. Draw a Pie Diagram for the following data of $6^{\text {th }}$ five year plan outlay:

Agriculture and Rural Development
Irrigation
Energy
Industry and Minerals
Transport and Communication
Social Services

## Sub-Characteristics

Urban, Rural
Hindus, Non-Hindus
Males, Females
$0-30,30-60$ and above12.9\%
12.5\%
27.2\%
15.4\%
15.9\%
$16.1 \%$

## SECTION-C

## III. Answer any TWO questions :-

18. Examine the nature and scope of Statistics by pointing out its various functions.
19. Calculate Mean, Median and Mode for the following data :-

| Size | $10-19$ | $20-29$ | $30-39$ | $40-49$ | $50-59$ | $60-69$ | $70-79$ | $80-89$ | $90-99$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Frequency | 11 | 19 | 21 | 16 | 10 | 8 | 6 | 3 | 1 |

20. Calculate the Karlpearsons' Coefficient of Skewness for the following series:-

| X | 12.5 | 17.5 | 22.5 | 27.5 | 32.5 | 37.5 | 42.5 | 47.5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| frequency | 28 | 42 | 54 | 108 | 129 | 61 | 45 | 33 |

21. Prove that Fishers' Ideal Index satisfies the Time Reversal Test and Factor Reversal Test.

| Commodities | $\mathrm{P}_{0}$ | $\mathrm{Q}_{0}$ | $\mathrm{P}_{1} \mathrm{Q}_{1}$ | $\mathrm{Q}_{1}$ |
| :---: | :---: | :---: | :---: | :---: |
| A | 2 | 8 | 24 | 6 |
| B | 5 | 10 | 30 | 5 |
| C | 4 | 14 | 50 | 10 |
| D | 2 | 19 | 26 | 13 |

