# STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 86 

(For Candidates admitted during the academic year 2011-2012 \& thereafter)
SUBJECT CODE: 11EC/AC/SE14

## B.A. DEGREE EXAMINATION NOVEMBER 2014 <br> BRANCH IV - ECONOMICS <br> FIRST SEMESTER

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

MAX.MARKS: 100

## SECTION - A

I. ANSWER ALL QUESTIONS:-
(10x2=20)

1. State any two Limitations of Statistics.
2. Specify any two Methods of Collecting Primary data.
3. What do you mean by Tabulation of Data?
4. Explain Pie diagram.
5. Find Median and mode for the following data.
$6,8,11,7,8,12,6,8$.
6. What are the Merits of Geometric Mean?
7. Calculate quartile deviation and its Coefficient, if $\mathrm{Q}_{3}=62$ and $\mathrm{Q}_{1}=54$.
8. Define kurtosis.
9. What is an Index numbers?
10. Compute consumer Price Index when $\Sigma P V=10,000$ and $\Sigma V=80$.

## SECTION-B

II. ANSWER ANY FIVE QUESTIONS :-
$(5 \times 8=40)$
11. Describe the functions of Statistics.
12. Explain the types of classification of data with suitable examples.
13. Discuss the importance of graphic representation of data.
14. What are the merits of Mode? Compute the Mode from the following data:

| Class Interval | $1-5$ | $5-10$ | $10-15$ | $15-20$ | $20-25$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Frequency | 7 | 10 | 16 | 32 | 24 |

15. From the following data: Calculate Quartile Deviation and Coefficient of Quartile Deviation:

| Marks | $25-35$ | $35-45$ | $45-55$ | $55-65$ | $65-75$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| No. of Students | 2 | 10 | 25 | 16 | 7 |

16. Using Step deviation method, Calculate Standard Deviation of the Series, (where assumed mean is 35 ).

| Marks | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of Students | 5 | 10 | 20 | 40 | 30 | 20 | 10 |

17. Explain Features and the uses of Index Numbers.

## SECTION-C

## III. ANSWER ANY TWO QUESTIONS :-

( $2 \times 20=40$ )
18. Discuss the various Probability and Non- Probability Sampling Methods.
19. From the following data calculate Arithmetic Mean, Median and Mode. (Assumed mean is 35)

| Class Interval | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 10 | 20 | 35 | 40 | 25 | 25 | 15 |

20. Calculate Karl Pearson’s Coefficient of Skewness for the following data.

| Marks | $0-20$ | $20-40$ | $40-60$ | $60-80$ | $80-100$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| No. of Student | 15 | 20 | 30 | 25 | 10 |

21. Calculate Fisher’s Ideal Index Number from the following data. Does it satisfy Time Reversal Test? Prove it:

| Commodity | Price |  | Quantity |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 3}$ |
| A | 3 | 4 | 20 | 18 |
| B | 4 | 5 | 25 | 20 |
| C | 2 | 2 | 10 | 12 |
| D | 8 | 10 | 12 | 10 |
| E | 20 | 25 | 40 | 40 |

