# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

# **B.A.** DEGREE EXAMINATION – **ECONOMICS**

## SECOND SEMESTER - APRIL 2016

## **CO 2110 - STATISTICAL METHODS FOR ECONOMICS**

Date: 26-04-2016 Time: 01:00-04:00

Answer ALL questions.

Dept. No.

## **SECTION A**

Max.: 100 Marks

- 1. Discuss the characteristics of Statistics
  - 2. List any two limitations of statistics.
  - 3. What are the methods of collecting Primary Data?
  - 4. What are the advantages of classifications of data?
  - 5. There are 50 students in a class. The average marks of the 10 failed students is 25. The total marks got by the entire class is 2,810. What is the average mark of the successful candidates?
  - 6. Find the range and its coefficients for the following data: 45, 35, 50,65,52,40.
  - 7. Define the term correlation.
  - 8. Describe the simple average method of measuring seasonal index.
  - 9. Define index numbers.
  - 10. State any limitation of index numbers.

#### **SECTION B**

#### Answer any FIVE questions:

11. (a) Describe the various non - probability sampling techniques.

(b) Explain the various types of classification.

12. Construct the histogram and frequency for the following frequency distribution:

Wight(kg)	41 - 45	46 - 50	51 - 55	56 - 60	61 - 65	66 - 70	71 – 75	76 - 80
No.of persons	4	5	9	6	11	5	7	3

13. Find the geometric mean for the following data:

marks	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60
No.ofstudents	7	5	25	33	23	10

#### 14. Calculate mode for the following distribution:

Marks	1 – 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60
No.ofstudents	10	20	30	50	40	30

15. The scores of two players A and B in 12 rounds are given below:

А	84	87	88	94	92	87	85	86	94	93	92	90
В	89	85	84	94	93	94	95	83	86	87	86	80

Identify the better player and the more consistent player

16. Calculate the trend values by the method of moving averages, assuming a four-yearly cycle, from the following data relating to sugar production in India.

Year	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Sales	37.4	31.1	38.7	39.5	47.9	42.6	48.4	64.6	58.4	38.6	51.4	84.4



## (10 x 2 = 20 Marks)

(5 X 8 = 40 Marks)

		cost of I	iving index	k number fro	m the follo	wing	group data:				
1/	7.Construct the			_			• 1				
_	Commodity	V	Veights	Current	year price		Base yea	r price			
	Dies		F		<u> </u>		40				
	Rice Wheat		5 4		50 40		40 30				
	Pulses		4		40 50		50				
	Oil		5		30		25				
	Milk		8		50		40				
				SE	CTION (	2					
n	swer any TWO	) questi	ons					(	(2 X 2	20 = 40	Marks)
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18	3.(a) From the	tollowin	ig data finc	mean, med	an and mo	le. Ve	erify the em	pirical	relat	ionship.	
Γ	Marks	1	-5 6-1	0 11 - 15	16 - 20	21 - 23	5 26-30	31 -	35	36 - 40	41 - 45
	No.of studer	nts	7 10	16	30	24	17	10	)	5	1
	and 18, res	pective	lv. Find th	e standard	deviation	of the	combined	sampl	le.		(15+5)
	and 18, res Calculate Bowl	-	-					sampl	ole.		(15+5)
	Calculate Bowl	ey's coe	efficient of	skewness fro	om the follo	owing	data:	-		60 – 70	. ,
		ey's coe	-	skewness fro	om the follo		data:	sampl	- 60	<u>60 - 70</u> 25	70-8
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9. <b>(</b>	Calculate Bowl Marks No. of per D.a) Calculate of Marks in Marks in	ey's coe sons coefficie Science Maths	efficient of $\begin{array}{r} 0-10\\ 10\\ \end{array}$ ent of ranl $\begin{array}{r} e 40 46\\ 45 45\\ \end{array}$	skewness from $10 - 20$ 2 $25$ x correlation $54$ $60$ $50$ $43$	0 - 30 $30$ $20$ $30$ n from the $70$ $80$ $80$ $40$ $75$ $50$	owing 0 - 40 15 follov 2 85 5 72	data: 40 - 50 10 wing data: 85 90 65 42	50 – 35 95 70	- 60 5	25	70 – 8 10 (20)
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