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OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

UNIVERSITY EXAMINATIONS

2020 /2021 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE
IN APPLIED STATISTICS WITH COMPUTING

MAIN EXAM

COURSE CODE: STA 213

COURSE TITLE: SOCIAL AND ECONOMIC
STATISTICS

DATE: 17/03/2021

TIME: 1400 – 1700 HRS

INSTRUCTION TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF PRINTED PAGES

PLEASE TURN OVER

C	6	8	6	4.5
D	2	1	9	1.8

QUESTION FIVE (13 MARKS)

(a) The following table shows nominal GDP and an appropriate price index for a group of selected years. Compute real GDP. Indicate in each calculation whether you are inflating or deflating the nominal GDP data. (5 marks)

Year	Nominal GDP, Billions	Price index (1996 = 100)	Real GDP, Billions
1960	\$527.4	22.19	\$ _____
1968	911.5	26.29	\$ _____
1978	2295.9	48.22	\$ _____
1988	4742.5	80.22	\$ _____
1998	8790.2	103.22	\$ _____

b) State three balance of payments accounts? (3 marks)

c) Use the following table to calculate CPI? Let 1985 be the base year. (5marks)

Monthly Market Basket	1985 Prices	1996 Prices	Cost of market basket in 1985	Cost of market basket in 1996
60 hamburgers	\$1.60	\$3.20	\$96.00	\$192.00
4 T-shirts	10.00	18.00	40.00	72.00
2 jeans	24.00	24.00	48.00	48.00
1 compact disc	16.00	12.00	16.00	12.00
Total Cost of Basket			\$200.00	\$324.00
CPI			100	162

QUESTION SIX (13 MARKS)

(a) From the following data ,construct an index for 2012 taking 2010 as base by the average of relatives method using;

Commodity	Price in 2010	Price in 2012.
A	60	70
B	40	60
C	80	90
D	100	120
E	20	25

- i. Arithmetic mean (3 marks)
 ii. Geometric mean (3 marks)
- (b) Discuss problems associated with consumer price index (CPI) in measuring inflation rate (3 marks)
- (c) Why would it be useful to examine a country's balance of payments data? (4 marks)

QUESTION SEVEN (13 MARKS)

- (a) Suppose that the agrarian economy of Simpsonia consists only of two sectors: private consumption and private investment. The following figures give total production and prices for both sectors in 2010 and 2011. The base year is 2010

CONSUMPTION

	CHEESE		WINE	
	Quantity	Price	Quantity	Price
2010	100	\$ 6	150	\$ 10
2011	100	\$ 8	400	\$ 2

INVESTMENT

	BULLDOZERS		TRUCKS	
	Quantity	Price	Quantity	Price
2010	4	\$ 200	13	\$ 50
2011	5	\$ 260	15	\$ 60

Calculate nominal consumption, investment and GDP for 2010 and 2011

- (6 marks)
- (b) Explain how to compute the overall balance and discuss its significance. (4 marks)
- (c) Differentiate between the current and financial accounts as used under balance of payments (3 marks)