

Sample Exam

STAT 101

United Arab Emirates University

October 18, 2023

Name:

Roll Number:

- There are a total of ** points in this Question Paper. Answer as much as you can. If your acquired score is greater than equal to **, it will be counted as 100%.
- There are three parts in this Exam. Part-I involves TRUE/FALSE or Multiple Answer type questions, Part-II contains a few short answer type questions
- The Exam is scheduled for 70 minutes
- You may take help from the "Exam Assistance Note" containing a few required definitions and formula.

For instructor's use only

Problem Number	Obtained Score	Total Score
Problem 1		
Problem 2		
Problem 3		
Problem 4		
Problem 5		
Problem 6		
Problem 7		
Problem 8		
TOTAL		

Part I

Identify whether the following statements are True or False. You do not need any further justification to your answers.

1. (a)

The Life, Education and Income indices for a country in the year 2010 is given as: Life Index = 86%, Education Index=72%, Income Index = 85%. What is the the Human Development Index (HDI) for the country (rounded upto 2 decimal place).

Score:
Total Score: 5

Ans: 79.47% 91.47% 3.47% 103.16%

(b)

Statement: The variables that records the number of births of a country is a Quantitative, Discrete Data.

Score:
Total Score: 5

Ans: TURE FALSE

Part II

Answer the following short type questions.

2. (a)

The population of France was 68 million in 2013 and 77 million in 2019. Calculate the percentage increase of the population in the period 2013 and 2019.

Score:
Total Score: 5

(b)

b) Calculate the AAGR% of the population of France in the period 2013-2019.

Score:
Total Score: 5

(c)

Estimate the doubling time of the population in France.

Score:
Total Score: 5

3

The following attributes of Kuwait are provided in the table below:

	Life expectancy	Mean Years of Schooling	Expected Years of Schooling	GNI percapita
Kuwait	77.9	6.1	12.5	55,719

Calculate the Economic Index and the Life Index of the country. (I_{Economic} and I_{Life})

Score:
Total Score: 5+5

4.

Given the following information: year	emission
1975	349.7
1980	524.9
1985	804.8
1990	958.9
1995	1077.5
2000	1300.4
2005	1638
2010	2586

Find the AAGR% for the Co2 emission for the period 2000-2010.

(a)

Score:
Total Score: 7

Estimate the emission in year 2030 using year 2010 as basic year.

(b)

Score:
Total Score: 3

Consider the following table that provides the Unit Price and Production Quantities of Item-A, B and C in the years 2006, and 2016.

Item/Year	Unit Price		Output quantities	
	2006	2016	2006	2016
Item-A	45	50	400	700
Item-B	30	38	216	350
Item-C	40	45	300	800

5.

Question: Calculate the Laspeyres Price Index, show all the steps.

(a)

Score: _____
Total Score: 10

Question: Calculate the Laspeyres Volume Index. Show all the steps.

(b)

Score: _____
Total Score: 3

It is known that on reserve and consumption of copper in 2005:

6. World reserves 2005 = 480 million metric tons
World consumption 2005 = 16.6 million metric tons.

Compute the world reserves life indices (WRLI) 2005 for copper according to the data provided in the year 2005.

(a)

Score: _____
Total Score: 5

Assume that the global copper consumption **grows annually** at the rate AAGR=1%. How many years will it take to reach complete depletion of the 2008 world reserves?

(b)

Score: _____
Total Score: 10

On the contrary, if the global copper consumption **decreases annually** at the rate AAGR=0.8%. How many years will it take to reach complete depletion of the 2008 world reserves?

(c)

Score: _____
Total Score: 10