Department of Computer Science & Engineering

University of Asia Pacific (UAP)

Program: B.Sc. in Computer Science and Engineering

Final Examination	**Fall 2020**	**2nd Year 2nd Semester**
Course Code: ECN 201	**Course Title: Economics**	**Credits: 2**
Full Marks: 25* (Written)		**Duration: 1 Hour**

* Total Marks of Final Examination: 50 (Written: 25 + Viva: 15 + Report 10)

Instructions: There are **Five (5)** Questions. Answer all of them. Part marks are shown in the margins.

1. Between GDP and GNP, which one is widely used by worldwide economies to measure the aggregate economic output and why? **(2)**

2. Is budget deficit always a negative indicator for a country's economy? Why or why not? **(2)**

3. Ceramic is one of the most promising industries in Bangladesh. Currently, there are only 5 public listed ceramic companies in Dhaka Stock Exchange (DSE). These companies mainly produce three types of ceramics – earthenware, stoneware and porcelain. Information regarding this market is often limited. Every company wishing to enter this market faces some barriers like patent registration, requirement of large capital and control over crucial raw materials etc.

   Requirements: Identify the type of market structure ceramic industry in Bangladesh holds. Justify your answer. **(2)**

4. Murshida Sharmin has Tk. 1,800 of income to spend per month and she likes to buy dresses and eat sandwiches. The price of a dress is Tk. 450 and the price of a sandwich is Tk. 300. The following table shows Murshida's utility from different alternatives.

Number of Dresses	Utility from Dresses (Utils)	Number of Sandwiches	Utility from Sandwiches (Utils)
1	360	1	210
2	630	2	450

3	840	3	600
4	960	4	690
5	1020	5	750
6	1050	6	780

Requirements:

a) Which consumption bundles of dresses and sandwiches can Murshida consume if she spends all her income? **(2)**

b) Calculate total utility derived from each consumption bundle and represent it graphically. What will be Murshida's optimal consumption bundle? **(4.5)**

c) Calculate marginal utility and marginal utility per taka of both dresses and sandwiches. **(4.5)**

5. Consider the economy of Bangladesh that produces two goods: laptops and mangoes. The following table provides the data for three different years.

Year	Laptops		Mangoes	
	Price (Tk.)	Quantity	Price (Tk.)	Quantity
2018	65,000	32	11	1,400
2019	70,000	35	13	1,600
2020	80,000	42	16	1,900

Requirements:

a) Calculate the Nominal GDP of each year. **(3)**

b) Calculate the Real GDP of 2019 and 2020 considering 2018 as the base year. **(2)**

c) Calculate CPI of 2019 and 2020 considering 2018 as the base year. What is the inflation rate from 2019 to 2020? **(3)**