AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
Department: Arts and Sciences
Program : B. Sc In Computer Science and Engineering
Semester Final Examination, Spring Semester 2017
Year : 3rd   **Semester: 1st**
Course No : HUM 3115   **Course Title: Economics and Accounting**
Time : 3 (Three) hours   **Full Marks: 70**

There are two Parts. Use a separate script for each Part.

Part-A (Economics)   Marks-45

There are seven (7) questions. Answer any five (5). (Marks allotted are indicated in the margin).

1. a. Suppose a parliamentary steering committee fixes the wage of dock labors at taka 2050/. Discuss the impact on economy. — 7

   b. Suppose the CPI in the Year 2014 was 95. In 2015 consumers spent 50% of their income on food, 20% on shelter and 30% on education. Now if the prices of food and education rise by 10% in 2015, calculate the CPI and rate of Inflation for the year 2015. — 2

2. Suppose Data Pro is the first software company in Malaysia that was established in 1990. Now what type of profit Data Pro is earning in 2016 if the number of company has risen to 2000? What type of profit did it earn in 1990? Is there any chance that Data Pro might face a loss in short run? — 9

3. a. Complete the matrix below and explain- — 7

Name of the product	Type of competition	Name of the market	Profit/Loss
Graduate Computer Engineer of Bangladesh			

   b. Given the demand function $Pd = (Q-1)^2$ where $Po = 4$ and $Qo = 6$. Find Consumer Surplus. — 2

4. a. Suppose the producer finds himself at a position where his MC>AC. Is it an — 7

b. ideal situation for production? Give reasons in favor of your answer.

b. Given the information of the following economy, calculate Real GNP and GNP deflator –   2

Item	2013		2014	
	P(in 000 tk)	Q(in units)	P(in 000 tk)	Q (in units)
Computer	40	1200	50	1000
Apartments	500	800	400	1000

5. a. Suppose the economy has not reached potential output and a terrible draught takes place. Discuss the impact on economy.   7

b. A Monopoly sells two goods for which the demand functions are   2

$$x = 25 - 0.5Px \text{ and}$$

$$y = 30 - Py \text{ and the combined cost function is } C =$$
$$x^2 + 2xy + y^2 + 20.$$

Find

a) Profit maximizing level of output *they* x, y
b) Profit maximizing level of prices P_x, P_y
and c) maximum profit. *xmy = ?*

6. Critically discuss the Law of Diminishing Marginal Product.   9

7. Complete the schedule and explain how many labor the producer actually needs-   9

Amount of labor	Total Product (TP_A)	Marginal Product (MP_A)
0	0	0
1st	2000	2000
2nd	5000	3000
3rd	9000	4000
4th	16000	7000
5th	26000	10000
6th	20000	-6000

Part-B
Accounting (Total Marks=25)

[There are four (4) questions. Answer any three (3) questions including question no.4. Marks allotted are indicated on the right margin.]

Question No. 1:   **10**

Nusrat Jahan started her own consulting firm, Nusrat Consulting, on August 1, 2017. The following transactions occurred during the month of August .

2017, August-1 Nusrat invested $30,000 cash in the business.

       9 Purchased office equipment for $5,200 on account.

      13 Purchased $ 1,600 of supplies on account.

      15 Paid $1025 to advertise in the Daily Sun.

      22 Withdrew $2,000 cash for personal use.

      25 Performed $12,000 of services on account.

      27 Paid $2,500 for employee salaries.

      29 Borrowed $3,000 from the One bank Ltd. on a note payable.

      31 Paid $275 for utilities.

Instructions:

a) Prepare a tabular summary of the transactions.

b) Prepare the income statement, owner's equity statement, and balance sheet at August 31, 2017 for Nusrat Consulting.

Question No.2   **10**

Mr. Joy opens his own law office on July 1, 2017. During the first month of operations, the following transactions occurred.

2017, July-1. Joy invested $30,000 in cash in the law practice.

      9. Paid $1,800 rent on office space for one-year.

      17. Purchased office equipment on account $7,000.

      20. Provided legal services to clients for cash $1,500.

25. Borrowed $900 cash from Jumuna bank Ltd. on a note payable.

26. Performed legal services for client on account $10,000.

28. Joy withdraws $1,000 cash for personal use.

Instructions:

a) Prepare general journal entries to record these transactions.

b) Post journal entries to the Ledger accounts.

c) Prepare a trial balance on July 31, 2017.

Question No. 3   10

Mr.Sakib sells a special purpose cleaning cloth. The product is generally sold through trade, home and exhibition shows. The following data is available, relating to the most recent year of operation.

Selling price	$55 per unit
Purchase price	$25 per unit
Fixed exhibition and trade show	$20,000 per year
Variable demonstration costs	$5 per unit
Fixed transport costs	$11,000 per year
Fixed administration costs	$9,000 per year

Management wants to earn a minimum profit of $ 90,000.

Required:

i.   Calculate break even point of unit sales and total dollar sales using Equation method.

ii. Calculate the number of unit required to be sold to earn expected profit using Contribution Margin method. ·

iii. Calculate the required amount of sales dollar to earn expected profit using equation method.

Question No. 4   (Answer any Two)   2 ×2.5= 5

a) Briefly explain three activities of accounting and information system.

b) Describe three major contributions of journal in the recording process.

c) Distinguish between fixed costs and variable costs with examples.