SOUTH EASTERN UNIVERSITY OF SRI LANKA

FIRST EXAMINATION IN BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY FOR MANAGEMENT STUDIES) – 2007/2008
SEMESTER – II, AUGUST/SEPTEMBER 2009

ITMS 1223 – BUSINESS ECONOMICS

Answer **all** questions.

Time: 03 hours

01

(a). What do you mean by business economics and briefly explain its importantce to the business firms

(04 Marks)

(b). What are the major objectives of business firms? Write a brief definition of those objectives.

(05 Marks)

(c) If the CPI were 300 in 2005 and 315 in 2006, what would the inflation rate be for 2006?

(04 Marks)

(d). Consider the hypothetical data on real GDP and the price level in the table. For the years 2004 to 2008, calculate the rate of growth of real GDP and the rate of inflation. Can you guess which year there was a steep recession? Explain.

(07 Marks)

Year	Real GDP(Rs billion)	Price level
2003	3776	71.7
2004	3843	78.9
2005	3760	83.8
2006	3907	87.2
2007	4149	91.0
2008	4280	94.4

02.

a) Explain briefly the importance of demand forecasting and the essentials of good forecasting in today's business firm.

(03 marks)

b) Illustrate forecasting methods diagrammatically.

(02 marks)

c) Given the following demand function:

$$Q_X = 5074 - 4000P_X + 1500P_Y + 300A_X - 32A_Y + 0.2Y_X$$

Q_X = Quantity demanded of product X. P_X = Price of product X.
P_Y = Price of related product
A_X = Advertisement for the product
A_Y = Advertisement for the related product
Y_X = Income of the consumer

Forecast the sales level of product X, given the values of the variable that P_X = Rs.8, P_Y = Rs.6, A_X =Rs.168, A_Y = Rs.182 and Y_X = Rs.26, 000

(05 marks)

d) XYZ (PVT) Ltd has decided to forecast the needed computer printer toners for SEUSL. It gives the following past data.

Year	Computer Printers(Units)	computer Printer Toners(Units)
1995	72	80
1996	78	84
1997	80	85
1998	84	90
1999	87	91
2000	90	97
2001	95	106
2002	100	110
2003	110	130
2004	140	150
2005	150	160
2006	200	180

Fit a simple linear regression line to the data and estimate the demand for computer printer toners for the following years.

Year	Computer Printers(Units)	computer Printer Toners(Units)
2007	240	?
2008	242	?
2009	246	?
2010	250	?
2012	251	?
2013	262	?
2015	264	?
2016	270	?
2018	274	?
2025	275	?
2030	280	?

(10 marks)

3). a) What is meant by production?

(03 marks)

b) What are the kinds of production function?

(03 marks)

c) The following are the data and fitted function related to the generator producing company over the years.

Year	Production of generators(Units)	X_1 (Rs)	X_2 (Rs)	X_3 (Rs)	X_4 (Rs)	X_5 (Rs)	X_6 (Rs)	X_7 (Rs)	X_8 (Rs)	X_9 (Rs)	X_{10} (Rs)
1996	32500	1500	78	3250	8	1300	788	24	4750	7850	550
1997	33000	1525	80	3725	9	1325	790	23	4600	7412	536
1998	34750	1575	80	4750	6	1854	800	25	4700	7896	562
1999	38000	1750	85	2750	4	1987	789	32	4501	7532	547
2000	35250	1700	96	3500	8	1456	456	36	5841	7698	635
2001	37000	1525	78	4500	7	1547	589	65	5687	8541	710
2002	39250	1772	96	4200	9	1684	687	45	5698	8569	720
2003	41000	1770	85	3700	5	16987	689	65	5641	8741	756
2004	41500	1800	88	3200	7	1456	632	23	5632	8974	789
2005	42000	1925	76	3350	5	1698	987	45	6987	9654	785
2006	42500	2100	74	3450	7	1698	954	89	6541	9854	754
2007	43000	3250	89	3564	7	1698	963	45	6325	9875	736
2008	43250	1776	90	3654	6	1456	984	75	6354	9632	796
2009	45000	2250	102	3893	6	1789	654	45	6987	9623	725

Ge Pro. = 2914 + 0.15 X1 + 151 X2 - 0.684 X3 – 691X4 – 0.018 X5 - 0.46 X6 + 15.6 X7 - 0.91X8 + 3.44 X9 + 7.5 X10

where:

X_1, X_2, X_3, X_4, X_5,X_6, X_7,X_8,X_9,X_{10} are factors of production and Ge Pro. is Production of generators. Estimate the production for generators for the following years, using the data given below.

Year	Production of generators(Units)	X_1 (Rs)	X_2 (Rs)	X_3 (Rs)	X_4 (Rs)	X_5 (Rs)	X_6 (Rs)	X_7 (Rs)	X_8 (Rs)	X_9 (Rs)	X_{10} (Rs)
2010	?	2400	82	4200	12	1540	820	32	5684	8245	821
2011	?	2420	78	3700	15	1254	822	33	6985	8300	856
2012	?	2500	85	3200	19	1350	755	35	7202	8325	847
2013	?	2540	76	3350	22	1375	788	38	7256	7698	865
2014	?	2560	74	4200	25	1400	852	42	8256	8541	897
2015	?	2564	79	4320	24	1480	857	45	8321	8569	865
2016	?	2700	72	4501	23	1482	856	49	8421	8741	880
2017	?	2560	74	4587	26	1562	896	52	8354	8974	881
2018	?	2546	71	4600	28	1700	785	29	5632	9654	890
2019	?	2420	76	4760	26	1785	796	45	6987	9854	895
2020	?	2800	85	5000	45	1900	800	89	6541	9875	921

(14 marks)

04)

(A). The following are the hypothetical data in 2008 (in millions)

Population (age 16 and over)	299.8
Civilian population(age 16 and over)	228.6
Employed	144.4
Unemployed	7.0

a. Calculate the unemployment rate

(03 Marks)

b. Calculate the labour force participation rate

(03 Marks)

c. Calculate the employment/ population ratio

(03 Marks)

(B).

What is the relationship between the natural rate of unemployment and full employment? Why might the natural rate change?

(05 Marks)

(C).

What impact will high and variable rates of inflation have on the economy? How they will influence the risk accompanying long - term contracts and related business decisions?

(06 Marks)

(Total 20 Marks)

05.

Assume that you have been asked by your lecturer to write an article on the title of recent economic crisis and its impact on Sri Lanka. You are required to write the article including the followings:

(a). The nature and causes of economic crisis-2008
(b). The major impact of economic crisis on Sri Lanka economy
(c). The measures taken by the government to controle impact of the crisis.

(20 Marks)