EXAM WRAPPERS

Objective of exam wrapper is twofold

1. To guide you for time management
2. To give you an idea of type of questions for midterm exams

This wrapper will help you determine focus areas and improve weak understandings by going back to the readings provided, attending upcoming Skype Session, group discussions, and consulting books along with managing time appropriately to secure good grades.

A cheat sheet is provided at the end of this document to help you find accuracy level of your answers.

Please fill following before you start preparing for midterm exams.

How much time did you spend on these activities?	**Time spent/week**	**Ideally required time**
Reading module related readings		1 hr.
Attending Skype Sessions		1 hr.
Reading textbook section(s) for the first time		1 hr.
Practice of numerical questions from end of chapter exercises		3 hr.
Re-reading textbook section(s)		20 min
Reviewing your own notes		30 min
Solving self-assessments		10 min
Total		**7 Hr.**

EXAM QUESTION WRAPPER

1. There is a huge load shedding of gas supply in the whole year generally and in winter season specifically. Sui Northern Gas has projected its annual sales pattern to overcome load shedding problem in future. Seasonal fluctuations are a major factor of load shedding is shortage of gas in winter season. Its top management has obtained following results by running a regression of gas sales data running from the first quarter of 2009 (t = 1) to the last quarter of 2012 (t = 16) on the seasonal dummy variables and the linear trend (t values are in parenthesis):

   S_t=13.75+2.735D1t+1.830t R2=0.85
   (-9.83) (6.11)

   Where St is the annual gas sales or consumption, D1is the dummy variable with value of 1 in first and last quarter of the year and zero in rest of two quarters of the year.

A. Interpret all regression results.
B. Using this information, forecast gas sales for each quarter of 2013.

(Marks: 2.5+2.5)

2. Learning curves have been documented in many manufacturing and service sectors of the economy. Highlight the sectors and uses of Learning curve in this regard? Support your answer with an example.

CHEAT SHEET

Question 1:

The question is having two parts carrying 2.5 marks each. Students can secure complete marks by complete interpretation in part one and by finding four forecast values in part two.

A. Regression Equation indicates that gas sales (S_0) are estimated to be 13.75 million cubic feet and increase at the average rate of 1.83 million cubic feet per quarter. The dummy and trend variables are statistically significant at better than the1 percent level (inferred from the value of t statistic given in parentheses below the estimated slope coefficient) and explains 85 percent in the quarterly variation of gas consumption (from R2 = 0.85). Dummy variable shows that in winter season extra gas consumption increased on average 2.735 cubic feet.

B. Forecasted gas sales for each quarter of 2013:
S17=13.75+2.735(1) +1.830(17) = 47.959
S18=13.75+2.735(0) +1.830(18) = 46.69
S19=13.75+2.735(0) +1.830(19) = 48.52
S20=13.75+2.735(1) +1.830(20) = 53.085

Question 2:

The question is having two parts carrying 2.5 marks each. Students can secure complete marks by highlighting the sectors in part one and by quoting relevant example in part two.

Learning curve has been used in the manufacturing of airplanes, appliances; shipbuilding, refined petroleum products, to the operation of power plants. They have also been used to forecast the needs for personnel, machinery, and raw materials, and for scheduling production, determining the price at which to sell output, and even for evaluating supplier's price quotations.

For Example in its early days as a computer-chip producer, Texas Instruments adopted an aggressive price strategy based on the learning curve. Believing that the learning curve in chip production was steep, it kept unit prices low in order to increase its cumulative total output rapidly and thereby benefit from learning by doing. The strategy was successful, and Texas Instruments became one of the world's major players in this market.

GENERAL INSTRUCTIONS

- Students are advised to have proper **practice** of numerical questions and **thorough understanding** of theoretical topics before appearing for exam.
- Read the exam question carefully and **determine** the ‘requirements’ of the question.
- In numerical questions follow the **step by step solution** procedure to avoid mistakes and secure full marks.
- In theoretical questions the answer should be **precise, logical and ‘focused’** to the ‘requirements’ of the question. Answer may be in students own words but vague reply will not carry good grades.