ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET (AUTONOMOUS)

MBA II Semester Regular Examinations, JUNE 2012 **OPERATIONS RESEARCH**

(For students admitted in 2011-12)

* * * * *

Time: 3 hours

Max Marks: 60

PART-A

 $4 \times 12 = 48$

Answer any FOUR of the following All questions carry equal marks

- 1. What is Operations Research? Explain characteristics and the applications of operations research in management decision making.
- 2. An animal feed company must produce 200kg of a mixture consisting of ingredients A and B respectively. It cost Rs. 3 per kg of A and Rs. 8 per kg of B. no more than 80 kg of A can be used, and at least 60 kg of B must be used. Find how much of each ingredient should be used if the company wants to minimize the cost. (use Big-M method).
- 3. a) Explain the methods for obtaining initial Basic Feasible solution of a Transportation problem.
 - b) Determine an initial basic feasible solution to the following transportation problem using north-west corner rule.

		A	В	C	D	E	Supply
	X	2	11	10	3	7	4
Origins	Y	1	4	7	2	1	8
	Z	3	.9	4	8	12	9
Demar	nd	3	3	4	5	6	

4. Five wagons are available at stations 1,2,3,4 and 5. These are required at five stations I, II, III, IV and V. The mileage between various stations is given in the following table. How should the wagons be transported so as to minimize the total mileage covered?

	Ι	II	III	IV	V
1	10	5	9	18	11
2	13	9	6	12	14
3	3	2	4	4	5
4	18	9	12	17	15
5	11	6	14	19	10

- 5. a) Define the following terms in relation to the theory of games.
 - i) Pure Strategy.
- ii) Mixed Strategy.
- iii) Two-person Zero-sum Games.
- b) Reduce the following game by dominance property and find the value of the game.

Player B I IIIIVI1 2 3 7 4 II3 4 1 5 6 Player A III7 6 5 6 5 IV2 0 6 3 1

- 6. a) Explain few decision criteria for decision making under uncertainty.
 - b) Explain the concept of Decision Tree Analysis.
- 7. Explain the basic elements of Queuing models. Also explain the characteristics of (M/M/1): (FCFS/∞/∞) queuing system.

PART-B

12 Marks

Compulsory Question

8. A project consists of the following activities with the given time estimation in months.

Activity	1–2	2–3	2–4	2–6	3–5	4–5	4–6	5–7	6–7	7–8
Optimistic time (a)	10	2	1	2	8	15	3	2	6	4
Most likely time (m)	12	8	4	3	12	18	5	4	9	6
Pessimistic time (b)	16	36	5	4	20	30	8	8	12	14

- i) Draw the project network.
- ii) Determine the Critical path and expected project completion time.
- iii) What is the probability that the project completion takes more than 55 months?
- iv) If the probability of completing the project is 0.5 and 0.99 what should be the corresponding expected duration of the project.

ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET (AUTONOMOUS)

MBA II Semester Regular Examinations, JUNE 2012 FINANCIAL MANAGEMENT

(For students admitted in 2011-12)

* * * * *

Time: 3 hours

Max Marks: 60

PART-A

 $4 \times 12 = 48$

Answer any FOUR of the following All questions carry equal marks

- 1. "The whole gamut of financial management moves around the twin objectives". Explain
- 2. a) What is an annuity? How future value of an annuity can be determined? Explain
 - b) Ms. Chinmayee wishes to institute a scholarship of Rs.10000 for an outstanding MBA student every year. She wants to know the present value of investment which would yield Rs.10000 in perpetuity, discounted at 15%.
- 3. Define the term cost of capital? State how you would determine the weighted average cost of capital of a firm.
- 4. Describe the various natures of short-term and long-term requirements of finance in a business?
- 5. Critically examine the basic propositions, assumption and arbitrage process under Modigliani Miller theorem regarding capital structure?
- 6. What is working capital management? What are the determinants of working capital needs of an enterprise?
- 7. Prepare a cash budget for the months of May, June and July 2012 on the basis of the following information.
 - i. Income and Expenditure forecasts:

Months	Credit sales	Credit purchases	Wages	Manufacturing expenses	Office expenses	Selling Expenses
March,12	60,000	36,000	9,000	4,000	2,000	4,000
April,12	62,000	38,000	8,000	3,000	1,500	5,000
May,12	65,000	33,000	10,000	4,500	2,500	4,500
June,12	58,000	35,000	8,500	3,500	2,000	3,500
July,12	56,000	39,000	9,500	4,000	1,000	4,500
August,12	60,000	34,000	8,000	3,000	1,500	4,500

- ii. Cash balance on 1^{st} May 2010 Rs.8,000.
- iii. Plant costing Rs.16,000 is due for delivery in July, payable 10% on delivery and the balance after 3 months.

- iv. Advance tax of Rs.8,000 each is payable in March and June.
- v. Period of credit allowed by suppliers- 2 months and to customers 1 month.
- vi. Lag in payment of manufacturing expenses ½ month.
- vii. Lag in payment of office and selling expenses -1 month.

PART-B

12 Marks

Compulsory Question

CASE

8. A limited company is considering investing in a project requiring a capital outlay of Rs.200000. Forecast for annual income after depreciation but before tax is as follows:

Year	1	2	3	4	5
EBT	1,00,000	1,00,000	80,000	80,000	40,000

Depreciation may be taken as 20% on original cost and taxation at 50% of net income. You are required to evaluate the project according to each of the following methods.

Questions

- a) Rate of return on original investment method
- b) Rate of return on average investment method
- c) Net present value at 14% cost of capital
- d) Internal rate of return of the project

ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET (AUTONOMOUS)

MBA II Semester Regular Examinations, JUNE 2012 MARKETING MANAGEMENT

(For students admitted in 2011-12)

* * * * *

Time: 3 hours

Max Marks: 60

PART-A

 $4 \times 12 = 48$

Answer any FOUR of the following All questions carry equal marks

- 1. What is the role of marketing in business scenario? Elaborate.
- 2. Discuss the factors that have led to the increasing importance of marketing research in India.
- 3. What are the bases for market segmentation? What will be the suitable base for segmenting the market for washing machines?
- 4. Define product planning and development. And describe the stages in new product development process.
- 5. What is the importance of pricing? And describe various factors to be considered in selecting the final price.
- 6. Compensation plays a key role in motivating the sales force, explain. And discuss the role of monetary and non-monetary factors in motivating the sales force.
- 7. Write short note on
 - a) Functional form of marketing organization.
 - b) Rural marketing.

PART-B

12 Marks

Compulsory Question

CASE

Much has been said about the changing ways and attitude of the Indian woman, and advertising seems to be keeping pace with her. It's not surprising then that in a recent pond's dream flower talk commercial, the bride refuses to fall prey to the demand for dowry and returns the wedding ring. She's applauded and also finds a suitor among her admirers. In fact, a quick ad scan reveals that Indian advertising is increasingly showing women rubbing shoulders with men and taking up more challenging jobs.

Clearly, the advertising agencies are handling the gender issues with sensitivity. Recently, Ogilvy & Mather altered its commercial for a private sector bank based on a single complaint that was posted on the agency's website.

The earlier tag line stated something to this effect: "Agar mere pass paison ka pedh hota to mein apni beti ki shaadi ek Raj Kumar se karta aur beta ko padhne videsh bhejta" (If I had a tree of money I would have married my daughter to a Prince and sent my son abroad to study.)

The complaint, that the ad is discriminating, was also made to the advertising standard's council of India (ASCI).

O&M was quick to react and altered the ad to say: "Agar mere pass paison ka pedh hota to mein apni beti ko padhne videsh bhejta aur beta ka business shuroo karwata" (If I had a tree of money I would have sent my daughter abroad to study and helped my son to set up a business).

Though Abhijit Awasthi, senior creative director, O&M, says that nither he nor any member of his team (including women) felt that marrying one's daughter to a prince connotes encouraging dowry, but the agency readily changed it.

"The bank is among our esteemed clients and we could not let its image erode even if one out of 200 million viewers has been offended", says Awasthi.

Ad makers agree that the advertising must reflect social changes santhosh Desai, President, McCann-Erickson, says that ads are changed for two reasons: one, women are becoming more assertive and confident. Secondly, trade and voluntary bodies like women's organizations are watching the advertising fraternity closely "consumers are not ready to pardon even the occasional lapses "he says.

Desai points out that even the fairness cream: Fair & Lovely commercials have been upgraded to suit the new environment. The cream's older ads showed a woman fetching a good groom after using the cream.

Later, the ad showed a girl becoming an airhostess. In another fairness cream ad she is not content being an airhostess: "into canchae kaki nahein" and she goes on to become a pilot. In the Fair & Lovely ad the product user is offered the role of the lead actor by film maker Rakesh Roshan.

"Not that being a housewife is inferior but advertising has to reflect the change in aspirational levels. Some times ad-makers dictate and lead the society, for instance the Fair & Lovely ad shows a woman cricket commentator. So far, there is none in India", says R.Balakrishnan, national creative director, Lowe.

Coyness in advertising the sanitary towel category is also passé. The new lot of commercials feature busy working women with little time to waste.

In a whisper's ad Perizaad Zorabian is confidently rushing for a full-day film shoot on the second day of her periods, while in another one a reporter is getting ready to enter a packed cricket stadium to cover the match. "Old anxieties and insecurities are dying out and the new ads are bringing the woman out of her inner world", observes Desai.

Ad makers claim the idea behind all advertising is to reflect aspirational and heroic values and most feel that today's women match men in financial prowess and intellect.

"They are an intelligent universe. And yes, it certainly helps to show them as they are in real life today", says meenakshi Bhalla, Vice president, O&M.

Questions

- a. What is the new profile of Indian women according to the above case?
- b. What do you think, how this will affect business communications?

ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET (AUTONOMOUS)

MBA II Semester Regular Examinations, JUNE 2012 PRODUCTION AND OPERATIONS MANAGEMENT

(For students admitted in 2011-12)

* * * * *

Time: 3 hours

Max Marks: 60

PART-A

 $4 \times 12 = 48$

Answer any FOUR of the following All questions carry equal marks

- 1. Distinguish between operations management and production management.
- 2. a) In a time study of an operation, the following observations are noted down with respective time in minutes. The performance is rated at 90% with allowances for personal needs, fatigue and other unavoidable delays as 15%. Determine the standard time for the operations.

Observations	Time (Minutes)
1	4.2
2	4.0
3	4.5
4	4.3
5	3.8
.6	4.8

- b) How the man machine chart will be useful in method study.
- 3. Name of the task, task times and required immediate predecessors are given below for a food processing plant:

Task	Task Time (In minutes)	Immediate predecessors
A	3	None
В	6	A
C	7	A
D	5	A
E	2	A
F	4	С,В
G	5	С
Н	5	D,E,F,G

The plant has desired output of 7600 units per week. The plant operates for 5 days per week, three shifts per day and eight hours per shift at 90 percent efficiency. Draw the precedence diagram. Calculate the required cycle time, line efficiency and balance delay, for the above operations.

- 4. What are the steps involved in value analysis and conduct a case study of value analysis on a match box used for house hold purpose.
- 5. The process time for the five jobs A,B,C,D and E and the due dates of the jobs are given in the table below.

JOB	Process Time (Days)	Due Date (Days from now)
A	9	16
В	7	20
С	5	25
D	11	15
E	6	40

^{*} Assume jobs arrived in the order shown.

The jobs may be sequenced according to any of the following rules:

- Shortest processing Time (SPT)
- First Come, First Served (FCFS)
- Longest processing Time (LPT)
- Earliest Due Date (EDD)

For the above set of jobs, compute the following resultant characteristics of the priority rules (sequencing rules)

- o Total completion time.
- o Average completion time.
- o Average number of jobs in the system.
- o Average job lateness.
- Give an example of a business that would use a push and one that would use a pull operations control system. Explain your choice and briefly describe how the system works.
- 7. a) What is statistical quality control? Discuss it's need and utility in industry.
 - b) Distinguish between chance and assignable causes. What are the advantages of statistically controlled process?

PART-B

12 Marks

Compulsory Question

CASE

Simco industry uses MRP for its material planning. The table below provides the information about a particular component Z. the demand for this component is uncertain and in order to take care of the sudden spurt in the demand, a safety stock of 100 items if recommended.

Week

Lot-for-lot order quantity=300 Lead time=2 weeks	1	2	3	4	5	6	7
Requirements	50	100	80	200	50	40	100
Schedule receipts	_ ,	200	_	_	_	-	_
On hand at the end of the period / 300							
Planned Order Release							

During which week/weeks should the receipts be planned? When should the order be placed? What is the expected on hand position at the end of the week 7.

ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET (AUTONOMOUS)

MBA II Semester Regular Examinations, JUNE 2012 BUSINESS ETHICS AND CORPORATE GOVERNANCE

(For students admitted in 2011-12)

* * * * *

Time: 3 hours

Max Marks: 60

PART-A

 $4 \times 12 = 48$

Answer any FOUR of the following All questions carry equal marks

- 1. What is meant by Business Ethics? explain different approaches of Business Ethics?
- 2. In today's business world we see a Perfect Competition, as a manager with ethical consciousness, list the issues that may come in the way of business management and also write the ways in which they can be resolved.
- 3. What are the ethical considerations in work place design? How does that lead to welfare of the employee and productivity of the Organization?
- 4. What is Insider Trading? In what way Insider Trading is unethical in Business Management
- 5. Information Systems are playing vital role in the success of business houses, explain different threats of information systems and what are the security measures that are available to face the situation
- 6. What are the roles and responsibilities of Board of Directors?
- 7. Who are stakeholders? Explain the importance of stakeholders in Business Ethics?

PART-B

12 Marks

Compulsory Question

CASE

On June 13, 1999, Coca-Cola (Coke) recalled over 15 million cans and bottles after the Belgian Health Ministry announced a ban on Coke's drinks, which were suspected of making more than 100 school children ill in the preceding six days. This recall was in addition to the 2.5 million bottles that had already been recalled in the previous week.

The company's products namely Coke, Diet Coke and Fanta had been bottled in Antwerp, Ghent and Wilrijk, Belgium while some batches of Coke, Diet Coke, Fanta and Sprite were also produced in Dunkirk, France.

Children at six schools in Belgium had complained of headache, nausea, vomiting and shivering which ultimately led to hospitalization after drinking Coke's beverages. Most of them reported an 'unusual odor' and an 'off-taste' in the drink. In a statement to Reuters, Marc Pattin, a spokesman for the Belgian Health Ministry explained the seriousness of the issue:

"Another 44 children had become ill with stomach pains, 42 of them at a school in Lochristi, near Ghent, northwest Belgium.

We have had five or six cases of poisoning of young people who had stomach pain after drinking (the suspect beverages)." In the same week, the governments of France, Spain and Luxembourg also banned Coke's products while Coke's Dutch arm recalled all products that had come from its Belgium plant. The entire episode left more than 200 Belgians and French, mostly school children, ill after drinking the Coke produced at Antwerp and Dunkirk.

The company had to assure its British customers that the products made in its UK factories were safe. By June 15, 1999, Coke had recalled about 30 million cans and bottles, the largest ever product recall in its 113-year history. For the first time, the entire inventory of Coke's products from one country were banned from sale.

As part of a damage control exercise, Coke sent a team of scientists to Europe. During its visit to Europe after a week of these incidents, Coke's chairman and CEO Michael Douglas Ivester said, "We deeply regret any problems encountered by our European consumers in the past few days." Coke Belgium even announced that it would reimburse the medical costs for people who had become ill after consuming its products.

Questions

- a. Discuss all the ethical issues involved in this case.
- b. Suggest a ethical mechanism to monitor such happenings
- c. What is the corporate social responsibilities of the company in this scenario?

ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET (AUTONOMOUS)

MBA II Semester Regular Examinations, JUNE 2012 BUSINESS RESEARCH METHODS

(For students admitted in 2011-12)

* * * * *

Time: 3 hours

Max Marks: 60

PART-A

 $4 \times 12 = 48$

Answer any FOUR of the following All questions carry equal marks

- 1. What is the significance of Research in Business management? Explain the types of Research in Business.
- 2. What are the steps and considerations in formulating the Research problem?
- 3. Distinguish between sampling and census. Review the probability sampling methods.
- 4. Define Questionnaire. What are the various types of questionnaires?
- 5. What is scaling in research? Describe the different scaling techniques.
- 6. Explain the structural equation modeling and Conjain Analysis. Give an example.
- 7. What are the types of research reports? Mention the problems in writing the research report.

PART-B

12 Marks

Compulsory Question

CASE

A management institute is found that people come from diverse educational back grounds and from different cities across India, which could be Metro, Large, Medium or small. To see if these two factors, are dependent on each other, data about the students having different backgrounds such as B.Tech., B.Com., B.A., C.A., and others with their corresponding size of the cities is recorded. This data is shown below.

At 0.05 significance level, does educational background differ according to the size of the cities to which the students belong?

Educational	Size of the Cities						
Background	Metro	Large	Medium/Small	Total			
B.Tech.	15	25	15	55			
B.Com.	35	20	15	70			
B.Sc.	10	10	5	25			
B.A.	15	10	20	45			
C.A.	10	5	5	20			
Others	15	10	10	35			