

MS-51

Management Programme

**ASSIGNMENT
FIRST SEMESTER
2010**

MS-51: Operations Research



**School of Management Studies
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI-110 068**

ASSIGNMENT

Course Code	:	MS-51
Course Title	:	Operations Research
Assignment Code	:	MS-51/SEM-I/2010
Coverage	:	All Blocks

Note: Please attempt all the questions and send it to the Coordinator of the study center you are attached with

- 1) Find out the optimal solution of the following LP problem through SIMPLEX method.
Maximise $Z = 20x_1 + 6x_2 + 8x_3$
Subject to
 $8x_1 + 2x_2 + 3x_3 \leq 200$
 $4x_1 + 3x_2 \leq 150$
 $2x_1 + x_3 \leq 50$
 $x_1, x_2 \text{ and } x_3 \geq 0$
- 2) Write dual of the problem given in Q.1. Explain the significance of dual variable in any LP problem.
- 3)
 - a) Explain the difference between pure strategy and mixed strategy.
 - b) How the concept of dominance is used in simplifying the solution of a rectangular game?
- 4)
 - a) Discuss the parameters of Queing problem.
 - b) Telephone department will install a second booth when convinced that an arrival would expect to waiting for at least 3 minutes to get his chance. By how much should be the flow of arrivals in order to justify a second booth. Length of phone call average is 3 min. Assume arrival and servicing rate as Poisson.
- 5) Write short notes on the following
 - i) Integer Programming
 - ii) Dynamic Programming
 - iii) Monte Carlo Simulation

MS-52

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MS-52: Project Management



**School of Management Studies
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ASSIGNMENT

Course Code	:	MS-52
Course Title	:	Project Management
Assignment Code	:	MS-52/SEM-I/2010
Coverage	:	All Blocks

Note: Please attempt all the questions and send it to the Coordinator of the study center you are attached with

- 1) Describe the important phases of a project life cycle.
- 2) Discuss the various methods of financial evaluation of the projects. Make a comparative analysis of these methods.
- 3) What are the different organization structures recommended for project organization and what are their advantages and disadvantages?
- 4) Explain the use and advantages of squared networks in Project Management with the help of an example.
- 5) Draw the project diagram from the information given below. Also identify the critical path and determine the project completion time.

Task	A	B	C	D	E	F	G	H	I	J	K	L	M
Precedence	-	A	B	B	D	D	E,F	G	G	H,I	C	K	
Time (Hours)	16	11	14	9	12	10	30	19	11	7	40	9	14

J,L

MS-53

Management Programme

**ASSIGNMENT
FIRST SEMESTER
2010**

MS-53: Production/Operations Management



**School of Management Studies
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI-110 068**

ASSIGNMENT

Course Code	:	MS-53
Course Title	:	Production/Operations Management
Assignment Code	:	MS-53/SEM-I/2010
Coverage	:	All Blocks

Note: Please attempt all the questions and send it to the Coordinator of the study center you are attached with

- 1) Explain the important features of ISO-9000

- 2) Discuss how time horizon of forecast is related to level of decision. Give examples.

- 3) Explain the conventional approach for developing Product Layout.

- 4) Describe the working details of KANBAN System or production. Also compare and contrast One-Card and Two-Card Kanban System.

- 5) What is MRP? Discuss the similarities and differences between MRP I and MRP II. \

- 6) Elaborate your understanding regarding Advanced Manufacturing System.

MS-54

Management Programme

**ASSIGNMENT
FIRST SEMESTER
2010**

MS-54: Management Information Systems



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ASSIGNMENT

Course Code	:	MS-54
Course Title	:	Management Information Systems
Assignment Code	:	54/TMA/SEM-I/2010
Assignment Coverage	:	All blocks

Note: Please attempt all the questions and send it to the Coordinator of the study center you are attached with

- Q.1 “The success of MIS function in any organization will depend upon the relative position of the Chief of the MIS function in that organization.” Comment.
- Q.2 What are the features of a language which should be considered for its selection in the design of a system? Explain your answer with special reference to online systems.
- Q.3 What are the Hardware requirements to get onto the communication media? What are the main functions of data communication structure?
- Q.4 List the five problems which may motivate an organization to move toward the database approach. Explain the significance of each one to a manager to an organization.
- Q.5 Different among Trojans, Worms and Viruses. Justify that “Computer Virus is a major threat to computer security.”

Inventory Control Models

i) Instantaneous Replacement Model

Economic Order Quantity

EOQ =

For Variable Demand rate in Various Cycle

EOQ =

ii) Economic Batch Quantity (ERQ)

Or

Economic Run Length (ERL)

- Gradual Replacement Model

EBQ / ERL =

iii) Basic Inventory Model with Bulk Discount on Price break

iv) EOQ , EBQ & ERL with shortage on Back log

v) Model for Uncertain Demand

Single Period

Multiple Period

SENSITIVITY ANALYSIS

Important Characteristics of EOQ Formula

EOQ =

Observations

a) 100% error in parameter C_o

Only 41% error in EOQ

b) D and C_c will have similar result

c) SQUARE ROOT form gives this very desirable Quantity

d) The parameter values do not need to be known very precisely to get reasonable good result (Near Optimal EOR)