Registration No :

Total Number of Pages : 02

MBA
18MBA401D

4th Semester Regular / Back Examination: 2021-22
MANAGEMENT OF MANUFACTURING SYSTEM
BRANCH(S): BA, GM, IB, MBA, MBA (M & F)
Time : 3 Hour
Max Marks : 100
Q.Code : J121

Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.
The figures in the right hand margin indicate marks.

Part-I

Q1 **Answer the following questions :** (2 × 10)

a) State the prime objectives of manufacturing process planning.
b) What do you understand by Assembly line?
c) Outline the basic concept of Kanban system.
d) Highlight the benefits of flexible manufacturing system.
e) What purpose Gantt chart solves?
f) State the advantages of cellular manufacturing.
g) Differentiate between process layout and product layout.
h) What is production flow analysis?
i) Define Drum- Buffer- Rope (DBR).
j) Differentiate between production and manufacturing.

Part-II

Q2 **Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** (6 × 8)

a) Discuss the requirements for a good manufacturing and assembly line layout.
b) Explain the various tools and techniques used for layout planning and analysis.
c) State the qualitative analysis in cellular manufacturing.
d) Explain the basic principles of JIT, highlighting the elements of JIT.
e) Enumerate the types of Kanban system.
f) With a schematic diagram briefly explain the theory of constraints cycle.
g) Describe the conceptual framework of Flexible Manufacturing System.
h) How can minimization of inter-cell movement be achieved in a cellular manufacturing system?
i) What is CONWIP? Draw a comparison with Kanban system.
j) Outline the constraints in manufacturing system.
k) Discuss the pull and push concept of Kanban.
l) State the requirements for a smooth operation planning.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 Outline the key principles in scheduling. Explain the scheduling procedure and the factors affecting scheduling. **(16)**

Q4 Discuss the objectives of plant layout. Elucidate the various types of layout. **(16)**

Q5 Explain the various steps involved in a production flow analysis (PFA).Also point out the advantages and disadvantages associated with it. **(16)**

Q6 Define process mapping. What are the generic building blocks of process mapping? With a flow chart explain process mapping in work environment. **(16)**

Registration No :

Total Number of Pages : 02

MBA
18MBA402D

4th Semester Regular / Back Examination: 2021-22
SOURCING MANAGEMENT
BRANCH(S): BA, GM, IB, MBA, MBA (M & F)

Time : 3 Hour

Max Marks : 100

Q.Code : J196

Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.

The figures in the right hand margin indicate marks.

Part-I

Q1 **Answer the following questions :** **(2 × 10)**

a) What is global sourcing?
b) What is opportunity analysis in sourcing?
c) What is Request for Proposal in negotiation Strategy?
d) What is the importance of risk analysis in sourcing management?
e) Why do we do vendor rating in sourcing management?
f) What is contingency plan in sourcing management?
g) What is meant by supplier score card?
h) What is the concept of green sourcing?
i) What do you mean by foreign exchange currency management?
j) What is EOQ?

Part-II

Q2 **Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** **(6 × 8)**

a) Briefly narrate the concept of co-sourcing in Sourcing management?
b) How does Gap analysis help in sourcing management?
c) Briefly explain cross-cultural negotiation and its impact in sourcing? Furnish with an example.
d) What is value based factors in sourcing planning and highlight with some examples.
e) Explain risk management technique in international business?
f) Why do we consider quality management process in sourcing management?
g) What is value based factors in sourcing planning and highlight with some examples.
h) Highlight some rating plans of vendor in sourcing management and its usefulness.
i) Briefly explain the concept of E-sourcing?
j) Discuss advantages and disadvantages of foreign exchange currency in brief.
k) How EOQ can be used in a quantity discount model? Briefly state with situational example.
l) Explain what is sourcing risk and how it may be managed properly.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 What is value based supplier selection? Why it is important for sourcing; **(16)**

Q4 What is negotiation in sourcing? Why it is important? Explain its nature with planning strategy. **(16)**

Q5 Discuss the advantages and disadvantages of E Sourcing in details. **(16)**

Q6 Explain sourcing risks and its mitigation strategy. Cite examples from industry. **(16)**

Registration No :

Total Number of Pages : 02

MBA
18MBA403D

4th Semester Regular / Back Examination: 2021-22
OPERATION RESEARCH APPLICATIONS
BRANCH(S): BA,GM,IB,MBA,MBA(M & F)
Time : 3 Hour
Max Marks :100
Q.Code : J256

Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.
The figures in the right hand margin indicate marks.

Part-I

Q1 **Answer the following questions :** **(2 ×10)**

a) What do you mean by Kendell's Notation in queuing model.
b) Explain the term Collusion and Reneging.in Queuing model.
c) What do you mean by degeneracy of transportation problem?
d) What do you mean by zero one programming problem?
e) Write any two applications of Operations research.
f) What do you mean by two stage supply chain?
g) What do you mean by vehicle routing problem?
h) How do you solve bin packing problem?
i) What is lower bound in bin packing?
j) Explain the concept of traffic intensity. Give an example.

Part-II

Q2 **Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** **(6 × 8)**

a) Discuss the need of integer programming to mathematical programming.
b) Describe Branch and Bound method for the solution of integer programming problem.
c) Describe Gomory's method odf solving an all integer programming problem.
d) What is dynamic programming? Explain its advantages and disadvantages.
e) What are the steps involved in dynamic programming algorithm?
f) Explain the nature of operations research and its limitations.
g) Write short notes on Kuhn-Tucker conditions.
h) A manufacturer of baby dolls makes two types of dolls, doll X and doll Y. Processing of these dolls are done on two machines A and B. Doll X requires 2 hours on machine A and 6 hours on Machine B. Doll Y requires 5 hours on machine A and 5 hours on Machine B. There are 16 hours of time per day available on machine A and 30 hours on machine B. The profit is gained on both the dolls is same. Format this as IPP?
i) Explain the basic principles of dynamic programming using a simple example.
j) A TV repairman finds that the time spent on his job has an exponential distribution with mean 30 minutes. If he repairs sets in the order in which they come in. If the arrival of sets is approximately poison with an average rate of 10 per 8 hours day. What is the repairman's expected idle time each day? How many jobs are ahead of the average set just brought in?

k) Find Total transportation cost using Northwest corner rule.

Storehouse→ Company↓	A	B	C	D	Supply
P	5	8	12	10	200
Q	7	6	8	9	300
R	11	16	12	14	400
Demand	140	250	350	160	900

l) We have five jobs each of which must go through the machines A,B and C. Determine the sequence that will minimize the total elapsed time.

Job no	1	2	3	4	5
M/C A	5	7	6	9	5
M/C B	2	1	4	5	3
M/C C	3	7	5	6	7

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 Define Operations Research. Discuss various classification of operations research models. **(16)**

Q4 Solve the following linear programming by Branch and bound technique. **(16)**
Max Z=X + Y
Subject to 3X +2Y≤12
Y≤2, X,Y≥0 and X,Y are integer.

Q5 Use dynamic programming to solve the LPP **(16)**
Max Z=X+9Y
Subject to constraint
2X+Y≤25
Y≤11
X.Y≥0

Q6 **(a)** Briefly explain Beale's Algorithm for Quadratic programming problem **(8)**
(b) What are the steps involved in Wolfe's modified simplex method. **(8)**