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Total Number of Pages : 02

Course: MBA  
Sub\_Code: 18MBA205

2<sup>nd</sup> Semester Regular / Back Examination: 2022-23

SUBJECT: Operations Management

BRANCH(S): MBA, MBA (A & M), FM&HRM, LSCM, MBA (M&F), RM, BM, FM, GM,  
HRM, IB, MM, BA

Time : 3 Hour

Max Marks : 100

Q.Code : M591

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 x 10)**

- Distinguish the operations in manufacturing and services industry.
- What is the aim of process analysis?
- What do you mean by job shop scheduling problem?
- What is the factor rating method for facility location problem?
- Define the term job enrichment.
- What is ABC analysis in inventory management?
- Define "Slack Time" with reference to project management.
- What is buffer stock?
- What are the control charts for variable?
- What do you mean by acceptance sampling?

**Part-II**

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

- Discuss the primary goal of operations management within an organization?
- Explain in brief the roles and responsibilities of an operations manager.
- In a welding shop, a direct time study was done on an operation. An experienced industrial engineer conducted the study and recorded the cycle time as shown below table. He rated the workers 100% and used 10% allowance. Determine the standard time for the work.

Cycle Time (Mnts)	No. of times Observed
20	2
24	1
29	1
32	1

- What do you mean by facility layout? Explain the process layout.
- Discuss the objectives of assembly line balancing.
- Distinguish between P system and Q system of inventory management.
- Explain the basic concept of materials requirement planning.

h) XYZ company buys in lots of 500 boxes, which is 3-month supply. The cost per box is Rs.125/- and the ordering cost is Rs.150/-. The inventory carrying cost is 20% of unit value.

- a) What is the total annual cost of the existing inventory policy?
- b) How much money could be saved by employing economic order quantity?

i) Explain the need for aggregate planning

j) Six jobs A,B,C,D,E and F arrived at one time to be processed on a single machine, no jobs arrives afterward,

Job	A	B	C	D	E	F
Processing Time(mnts)	7	6	8	4	3	5

Determine the following shortest processing time (SPT) rule

- a) Optimal Sequence
- b) Completion time of jobs
- c) Mean flow time

k) Discuss in brief the level aggregate planning/strategy.

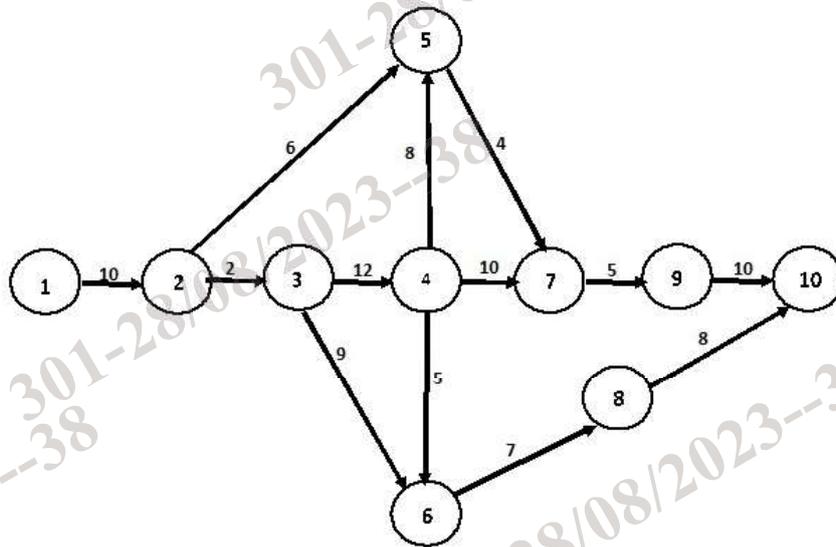
l) What do understand by supply chain, discuss how does effective supply chain management contribute to business success?

### Part-III

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

Q3

Distinguish between PERT and CPM and state where they are used. Obtain the critical path and project duration for the following network diagram explaining steps. (16)



Q4

What do you mean by capacity planning? Explain in details the capacity requirement planning (CRP). (16)

Q5

What do you understand by facility location problem? Discuss in details the factors influencing the facility location. (16)

Q6

Write the note on the following (8x2)

- a) ISO 9000
- b) Total Quality Management