

Unit 7 - Week 6

Course outline

How does an NPTEL online course work?

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Production Planning and Control

Process Planning

Aggregate Production Planning

Capacity Planning: Introduction

Capacity Planning: Examples

Quiz : Assignment 6

Solution For Assignment 6

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

Text Transcripts

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WEEKLY FEEDBACK

Assignment 6

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2020-03-11, 23:59 IST.

1) Process planning determine a route for the movement of a manufacturing lot through the factory.

1 point

- True
 False

No, the answer is incorrect. Score: 0

Accepted Answers: True

2) Peak demand involves hiring and firing of workers to match demand;

1 point

- True
 False

No, the answer is incorrect. Score: 0

Accepted Answers: False

3) The strategies usually adopted for adjusting capacity are;

1 point

- 1 Subcontracting
2 Chase demand
3 Level production

- 1 and 2
 2 and 3
 1, 2 and 3
 1 and 3

No, the answer is incorrect. Score: 0

Accepted Answers: 1, 2 and 3

4) The demand forecast for 4 quarters is given in the Table 1.

1 point

Table 1.

QUARTER	SALES FORECAST (in Kgs)
Spring	80,000
Summer	50,000
Fall	120,000
Winter	150,000

The cost for the various production alternatives and other details are given in Table 2.

Table 2.

Hiring cost	\$100 per worker
Firing cost	\$500 per worker
Regular production cost per Kg	\$2.00
Average yearly inventory carrying cost	\$0.50 per Kg per year
Production per employee	1,000 Kg per quarter
Beginning work force	100 workers

Calculate the total cost involved for satisfying the demand using the Level Production Strategy.

- \$850,000
 \$860,000
 \$870,000
 \$880,000

No, the answer is incorrect. Score: 0

Accepted Answers: \$870,000

5) Capacity is the ability to hold, receive, store, or accommodate _____

1 point

- Raw materials
 Finished products
 Customers
 All of these

No, the answer is incorrect. Score: 0

Accepted Answers: All of these

6) In capacity planning, the Capacity Utilization Rate is;

1 point

- Inversely proportional to Best Operation Level and directly proportional to Capacity Used
 Directly proportional to Best Operation Level and inversely proportional to Capacity Used
 Inversely proportional to Best Operation Level as well as Capacity Used
 Directly proportional to Best Operation Level as well as Capacity Used

No, the answer is incorrect. Score: 0

Accepted Answers: Inversely proportional to Best Operation Level and directly proportional to Capacity Used

7) The factor (s) affecting process planning is (are);

1 point

- Accuracy and process capability of machines
 Delivery dates of products
 Volume of production
 All of these

No, the answer is incorrect. Score: 0

Accepted Answers: All of these

8) Process planning is also known as _____

1 point

- Process engineering
 Machine routing
 Manufacturing planning
 All of these

No, the answer is incorrect. Score: 0

Accepted Answers: All of these

9) A manufacturer produces mustard oil in small and family-sized plastic bottles, with the demand forecast given in Table 1.

1 point

Table 1.

Size	Demand per year
Small (000's)	150
Family (000's)	115

The capacity available with the manufacturer and other details are given in Table 2.

Table 2.

Size of the bottle	No. of machines	Production per year per machine	No. of operators required
Small	3	100,000	2
Family	2	120,000	3

Calculate the % of machine capacity used for the production of small and family sized bottles, respectively.

- (47.9%, 50.0%)
 (50.0%, 47.9%)
 (62.5%, 38.3%)
 (38.3%, 62.5%)

No, the answer is incorrect. Score: 0

Accepted Answers: (50.0%, 47.9%)

10) Number of jobs has to be produced on milling machine, the details are given below;

1 point

Standard time for producing a job = 10 minutes
Number of jobs to be produced = 60,000
Machine capacity = 1500 hours/month
Machine utilization = 75%

Calculate the number of machines required to produce all the jobs.

- 9
 4
 2
 7

No, the answer is incorrect. Score: 0

Accepted Answers: 9