

Unit 10 - Week 9

Course outline

How does an NPTEL online course work?

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Week 2

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Week 4

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Week 9

Production Control

Sequencing

Sequencing Problems-I

Sequencing Problems-II

Master Production Scheduling (MPS)

Quiz : Assignment 9

Solution For Assignment 9

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WEEKLY FEEDBACK

Assignment 9

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

Due on 2020-04-01, 23:59 IST.

1) If lateness is _____, it is tardiness; when it is _____, it is earliness.

1 point

- Positive, negative
 Negative, negative
 Positive, positive
 Negative, positive

No, the answer is incorrect.
Score: 0

Accepted Answers:
Positive, negative

2) A machine center in a job shop for a local fabrication company has five unprocessed jobs remaining at a particular point in time. The jobs are labeled 1, 2, 3, 4 and 5 in the order that they entered the shop. The respective processing times (in hours) and due time for delivery (in hours) are given in the Table.

1 point

Job number	Processing time (hours)	Due time for delivery (hours)
1	11	61
2	29	45
3	31	31
4	1	33
5	2	32

Sequence the 5 jobs using Shortest Processing Time (SPT) rule and calculate the mean flow time, average tardiness, and number of tardy jobs, respectively.

- (24.2, 53.6, 2)
 (8.6, 27, 1)
 (27, 8.6, 1)
 (53.6, 24.2, 2)

No, the answer is incorrect.
Score: 0

Accepted Answers:
(27, 8.6, 1)

3) A machine center in a job shop for a local fabrication company has five unprocessed jobs remaining at a particular point in time. The jobs are labeled 1, 2, 3, 4, and 5 in the order that they entered the shop. The respective processing times (in hours) and due times for delivery (in hours) are given in the Table.

1 point

Job number	Processing time (hours)	Due time for delivery (hours)
1	11	61
2	29	45
3	31	31
4	1	33
5	2	32

Sequence the 5 jobs using First Come First Serve (FCFS) rule and calculate the mean flow time, average tardiness, and number of tardy jobs, respectively.

- (24.2, 53.6, 3)
 (53.6, 24.2, 3)
 (28.3, 54.6, 2)
 (54.6, 28.3, 2)

No, the answer is incorrect.
Score: 0

Accepted Answers:
(53.6, 24.2, 3)

4) Five jobs are to be processed on two machines M1 and M2 in the order M1-M2. Processing times for each job on M1 and M2 in hours are given in Table.

1 point

Job number	Processing time (hours)	
	Machine M1	Machine M2
1	5	2
2	1	6
3	9	7
4	3	8
5	10	4

Determine the sequence that minimizes the total elapsed time using Johnson's rule.

- 2-5-3-4-1
 2-3-5-4-1
 2-3-4-5-1
 2-4-3-5-1

No, the answer is incorrect.
Score: 0

Accepted Answers:
2-4-3-5-1

5) Gantt chart consists of a simple rectangular grid, divided by series of parallel horizontal and vertical lines.

1 point

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

6) Tardiness is the positive difference between the completion time and the due date of a job.

1 point

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

7) In parallel processing, the machines are identical, and any job can be processed on any machine.

1 point

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

8) The tie breaking rules while solving the sequencing problems using Johnson's Algorithm are;

1 point

- If there are equal smallest processing times, one for each machine, place the job on machine 1 first in the sequence and one in machine 2 last in the sequence.
- If both the equal smallest times are for machine 1, select the job with higher processing time for machine 2 for placing first in the sequence.
- If both the equal smallest times are for machine 2, select the one with lower processing time for machine 1 for placing last in the sequence.

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
1 and 3

9) The assumption (s) considered while solving the sequencing problem is (are);

1 point

- No machine can process more than one job at a time.
 Each job once started on one machine is continued till completion on it.
 Time involved in moving a job from one machine to another is negligibly small.
 All of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of these

10) The choosing criteria for sequencing are;

1 point

- In process inventory
- Idle times
- Average time to complete jobs

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
1, 2 and 3