

BPN2023: INDUSTRIAL ENGINEERING

REVIEW OF CHAPTER 10: AGGREGATE PLANNING

Direction:

With hand writing, answer the following questions. You are required to submit the answer no later than 10 August 2017.

Questions:

1. Define aggregate planning.
2. Explain the objectives of aggregate planning.
3. Detail the three common strategies of aggregate demand.
4. There are two methods for aggregate planning, namely graphical and mathematical methods. Explain the two methods.
5. Company ABC uses overtime, inventory, and subcontracting to absorb fluctuations in demand. An aggregate production plan is devised annually and updated quarterly. Cost, demand, and capacities in units for the next 4 quarters are given below.
 - a. Design a production plan.
 - b. Calculate the total cost of the plan.

Quarter	Expected demand	Capacity		
		Regular	Overtime	Subcontract
1	900	1000	100	500
2	1500	1200	150	500
3	1600	1300	200	500
4	3000	1300	200	500

Regular production cost per unit	\$20
Overtime production cost per unit	\$25
Subcontracting cost per unit	\$28
Inventory holding cost per unit per period	\$ 3
Beginning inventory	300 units