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Total No. of Pages : 02

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**M.Tech. (PE) (Sem.-2)**  
**PRODUCTION PLANNING & CONTROL**  
**Subject Code : PE-509**  
**M.Code : 39010**  
**Date of Examination : 04-07-22**

Time : 3 Hrs.

Max. Marks : 100

**INSTRUCTIONS TO CANDIDATES :**

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.
3. Use of normal distribution table is allowed.

1. a) What is the significance of pre-planning? List various activities performed for effective pre-planning.
2. Explain in details the different characteristics of production system? Also give their advantages and disadvantages.
3. a) What do you mean by machine and process capacity? How process capacity can be measured?  
b) What is different demand patterns observed in a demand time series? Explain them.
4. What is the implication of the following in the purchase policy of an organization:
  - a) Nature of material
  - b) Import items
  - c) Product quality and customer satisfaction

Explain with suitable examples.

5. a) Discuss in details the various categories of inventory costs with emphasis on ordering and carrying costs,  
b) What is meant by the term 'back orders' in operation management?

6. What is value analysis? Explain in details. How does it differ from value engineering?
7. What is market survey? How it is performed? Explain in details
8. Write illustrative notes on the following :
  - a) Effect of cyclic and random variation on capacity planning.
  - b) Preparation and use of master production schedule.
  - c) Negotiation skills in purchasing.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**