

- (ii) What are the objectives of OSCM ?
- (iii) What are different types of layouts ?
- (iv) Differentiate between JIT and lean production ?
- (v) What do you mean by global optimization in logistics ?
- (vi) What are economic benefits of warehousing ?
- (vii) How e-procurement is different from purchasing process ?
- (viii) Discuss social issues in supply chain management.

**SECTION – B**

**UNIT – I**

- 2. Describe the decision making in operations management and discuss four stages of operations and supply chain alignment with operation strategy.
- 3. Describe the mechanics of three qualitative forecasting techniques and compare their strengths and weaknesses.

**UNIT – II**

- 4. What are different factors in deciding location ? Explain the types and location planning methods.
- 5. Write a detailed note on Material Handling principles and devices.

**UNIT – III**

- 6. Discuss in detail Logistical operation in supply chain management and explain logistics strategy and decision models.

12027- (P-3)(Q-9)(19) ( 2 )

- 7. Write a detailed note on future trends in supply chain management.

**UNIT – IV**

- 8. Discuss in detail the process, trends and strategies of procurement.
- 9. Write detailed note on social issues & Relationship development in supply chain management.

12027- (P-3)(Q-9)(19) ( 3 )

**B. Tech. (Civil) 4th Semester/F-Scheme****Examination, May-2019****FLUID MECHANICS-II****Paper-CE-204-F***Time allowed : 3 hours]**[Maximum marks : 100*

**Note :** *Question No. 1 is compulsory. Attempt any five questions by selecting at least any one question from each section.*

1. Explain the following : 10×2=20
- (a) Laminar & Turbulent flow
  - (b) Net positive suction head
  - (c) Aging of pipes
  - (d) Cavitation
  - (e) Water Hammer
  - (f) Airlift Pump
  - (g) Total Energy Line
  - (h) Draft Tube
  - (i) Priming of Pump
  - (j) Surges in open Channels

**Section-A**

2. A smooth pipe of diameter 400mm & length 800m carries water at the rate of  $0.04\text{m}^3/\text{sec}$ . Determine the head lost due to friction, wall shear stress, center line velocity and thickness of laminar sub-layer. Take kinematic viscosity of water 0.18 stokes. 20

24196-P-3-Q-9(19)

[P.T.O.]