

Duration: 2 <sup>1</sup>/<sub>2</sub>Hrs

Marks:- 75

Note:- 1) All questions are compulsory.

2) Figures to the right indicate maximum marks.

**Q.1.A) State True or False: (CO1, CO2, CO3)****(8M)**

- 1) Philip Crosby formulated PPCA cycle. (R) T
- 2) Productivity & efficiency are same. (Apply) F
- 3) Productivity can be improved by standardizing processes. (Evaluate) T
- 4) Inventory management techniques can make or break your business. (Analyse) T
- 5) Purchasing consists of sourcing & procuring. (Apply) T
- 6) Purchasing is primarily a clerical activity. (Evaluate) F
- 7) Visibility does not form a part of good layout. (R) F
- 8) Simplification is opposite of Diversification. (Apply) T

**Q.1.B) Match the following: (CO1, CO2, CO3) (Apply)****(7M)**

Group A	Group B
1) Automation	A) Flexible manufacturing system <u>4</u>
2) Dam construction	B) Procurement <u>6</u>
3) Sourcing is part of	C) Environment friendly design & production
4) used for moving units loads horizontally & vertically	d) Selective criteria seasonally <u>3</u>
5) SOS	E) Stationary layout
6) TQM	F) Fork lift trucks <u>7</u>
7) ISO 14000	G) Customer focus <u>2</u>
	H) Elimination of Human Intervention <u>5</u>
	I) Environmental management <u>1</u>

**Q.2. Answer the following: (CO1, CO2) (Either A&B or C&D)****(15M)**

A) Explain intermittent &amp; continuous production system. (Evaluate)

**(8M)**

B) What are the principles of a Good layout.(Analyse)

**(7M)**

OR

(C) State importance of purchase management. (Evaluate)

**(8M)**

(D) What are the factors affecting product design. (Analyse)

**(7M)****Q.3. Explain the following: (CO1, CO3) (Either A&B or C&D)****(15M)**

A) State the importance of material handling systems. (Evaluate)

**(8M)**

B) Write a note on WOQ. (R, Analyse)

**(7M)**

OR

C) Explain SERVQUAL &amp; what are the service quality dimensions. (Evaluate)

**(8M)**

D) (i) Determine the multifactor productivity for the combined input of the labour & machine time using the following. (Apply) (3M)

Labour- 1500 RS

Material- 500 RS

Overheads- 3000 RS

Output is 10000 units.

(ii) Following information refers to pedestal fans. (Apply) (4M)

Annual demand- 36000 units

Unit price of pedestal fan- RS 4000

Ordering cost- RS 500 per order

Inventory carrying cost- 25%

Calculate EOQ.

**Q.4. Answer the following: (CO2, CO3) (Either A&B or C&D)**  
(15M)

A) Evaluate the need & importance of quality management. (Evaluate) (8M)

B) What are quality circles. State its characteristics benefits & limitations. (U, Apply) (7M)

OR

C) Explain Philip Crosby's philosophy of quality. (Remember) (8M)

D) What is TQM, State its characteristics. (Analyse) (7M)

**Q.5. Write short notes: (Any 3) (CO1, CO2, CO3)** (15M)

A) 6 Sigma (R)

B) Ishikawa Fish Bone Theory (Apply)

C) Factors affecting quality (Evaluate)

D) Classification of products (Understand)

E) Types of Layout (Evaluate)