

Question

Score

- I
1. Men, Material, money, machinery, market and methods. 2
 2. A person under training 2
 3. (i) fit for the purpose (ii) conformance of requirements (iii) what customer says any one 2
 4. LPP, waiting line or queuing theory, game theory any two 2x1=2
 5. 1- Technology Business Incubator 2x1=2
 2. Department of Science and Industrial Research

part B

II

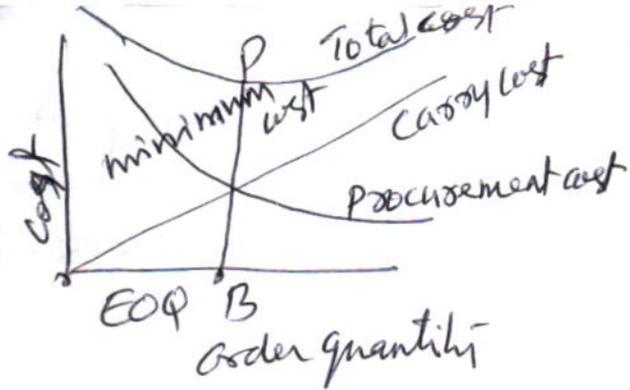
1. Higher % of work force, less wastage
 improved product quality,
 job satisfaction, less fatigue to workers
 higher organisational stability
 stabilisation and standardisation is easy
 can boost morale
 helps to build team spirit 6x1=6

2 (i) Economic order quantity model (EOQ)

EOQ referred to as the size of the order that gives maximum economy in purchase
 EOQ gives solution to inventory problems
 helps appropriate level for holding inventories

$$EOQ = \sqrt{\frac{2C_0 D}{C_h}} \quad \text{or the cyclic period } t = \sqrt{\frac{2C_0}{C_h D}}$$

total number of order per year $N = \sqrt{\frac{C_h D}{2C_0}}$
 When C_0 = ordering cost per order
 D = Annual Demand; C_h = cost of holding stock



2 (2)

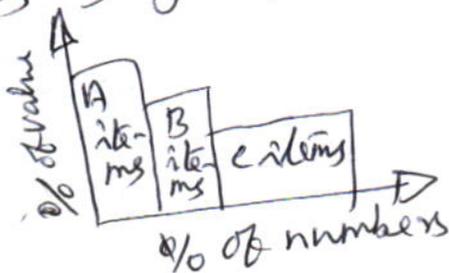
(ii) ABC Control policy

A always (A) Better (B) Control (C). It is an analytical material management tool. materials are classified as high valued, medium valued and low valued items.

- A - high valued - maximum attention
- B - medium " - fair attention
- C - low valued - low attention

Inventories 3 groups A, B, C

~~A~~



3+36

3

ISO-9000 - minimum acceptable level of standards
 Standards for quality management
 doesn't ensure TQM
 provides an opportunity to create and improve quality system

ISO not TQM

ISO 9000 stepping stone to TQM

TQM = ISO 9000 + worker motivation + financial management

TQM = ISO 9000 + Total involvement + Focus on customer + continuous improvement + Top management commitment

3+36

4.

PERT	CPM
1. probability model stochastic model	deterministic model
2. event oriented	activity oriented
3. use n/w diagram events, slack	arrow diagram nodes, float
4. dummy activities required	not necessary
5. does not demarcate critical & non critical activities	masks critical activities
6. apply in projects where where resources are always made available	employed where minimum cost cost is important

6x1 = 6

5.

need for the selection of the optimal strategies by the two players.
 In this game one would try to ~~be~~ maximise his minimum gain.
 Minimum of the maximum loss will be called min max value of the game and the corresponding strategy min max strategy. The selection of the max min and min max strategies based on the principle which guarantees the best of ~~to~~ the ~~worst~~ worst results. Maximum value of the game is equal to the ~~min~~ min max of the game

6

6 Factory : place where in 10 or more persons are working

A ④

Accident proneness :- defined as the continuing tendency of a person to have more accidents as a result of his persisting characteristics

2

2

Unsafe act : Unsafe acts are considered to be the biggest cause of accidents.

- failing to wear protective equipment
- rendering machine guard inoperative
- operating equipments without authority
- operating at excessive speeds
- engaging in useless activities

2 6

- 7
- * manage business and take decisions
 - Study the market and select the profitable business
 - select the plant size
 - organise the sales and hold the customers
 - promote new inventories
 - coordinate different factors of production
 - Arrange raw materials, machinery and finance
 - employ the labours
 - decide pricing policy

6x1=6