

## **UNIT-III DEFENCE PLANNING**

1. Concept of Defence Planning.
2. Systems analysis.
3. Cost effectiveness and selection of weapons and weapon system.

## **UNIT - IV DEFENCE PRODUCTION**

1. Classification of defence requirements.
2. Role of ordnance factories, public and private sector undertaking.
3. Defence Research and Development Organization.

## **UNIT - V EFFECTS OF WAR ON ECONOMY**

1. Inflation and Balance of Payments.
2. Science and Technology.
3. Mobilization of resources.

UNIT-IVDEFENCE PRODUCTIONORDNANCE FACTORIES:

ordnance factories are engaged in Research, development, production, testing, marketing and logistics of a product range in the areas of air, land, and sea systems.

Apex Board is headed by the director General of ordnance factory.

There are 41 ordnance factories are present.

ordnance factory divided into 5 operating divisions:

- \* Ammunition & Explosives
- \* weapon, vehicle & Equipment
- \* Material & components
- \* Armoured vehicle.
- \* ordnance equipment group of factories

C.S. Vishwakarma is the current chairman of ordnance factory.

## DRDO : Defence Research and Development Organisation.

DRDO was founded in 1958.

It was a Research and development Branch associate with defence. It was a prominent Industry and promising agency for the Indian Defence Forces. The Head Quarters of DRDO is DRDO Bhavan, New Delhi.

### ROLE :

Defence Research and Development Organisation is a defence R & D hub, which develops defence technologies, systems/products that are require for Indian armed force - DRDO develops defence technology & project mode.

### RESPONSIBILITIES :

- \* Industry Interface.
- \* Technology Management.
  - i) Transfer of Technology.
  - ii) Technology Acquisition.

The Public Sector Enterprises are run by the government under the Department of public Enterprises of Ministry of Heavy Industries and public Enterprises. The govt. grants the Status of Navratna, Miniratna and Maharatna based upon profits.

### MAHARATNA:

\* The Average annual turnover of the PSU during the last 3 years is more than Rs. 25,000 crore.

\* The company should have the significant global presence or international operations. There are 10 Maharatna's

- i) Bharat Heavy Electricals Limited (BHEL)
- ii) Coal India Limited.
- iii) GAIL (India) Limited.
- iv) Indian oil corporation Limited. (IOCL)
- v) NTPC Limited,
- vi) oil & Natural Gas corporation Limited
- vii) Steel Authority of India Limited.
- viii) Bharat petroleum corporation Limited (BPCL)
- ix) Power grid corporation of India (POWERGRID)
- x) Hindustan Petroleum corporation Limited (HPCL)

## Navaratna :

- \* The company must have 'Miniratna'-I status along with Schedule 'A' listing.
- \* It should have at least 3 'Excellent' or 'very good' Memorandum of Understanding (MoU) during the last five years.
- \* It should composite score of 60 or above out of possible 100 marks in the 6 selected performance parameters.

- i) Net profit to Net worth (max: 25)
- ii) Manpower cost to cost of production or services (max: 15)
- iii) Gross margin as capital employed (max: 15)
- iv) Gross profit as Turnover (max: 15)
- v) Earnings per share (max: 10)
- vi) Inter-Sectoral comparison based on Net profit to net worth (max: 20)

These are 16 Navaratna sectors in the country:

1. Bharat Electronics Limited
2. Neyveli lignite corporation
3. Hindustan Aeronautics Limited.
4. Shipping corporation of India Limited etc.,

MINIRATNA:

These have made profits for the last three years continuously or earned a net profit of Rs. 30 crores or more in one of these three years. It comes under category-I there are 60 such companies. Under category-II those companies have made profits continuously for the last three years and must have a positive worth. There are 15 such companies in this category.

1. Airports Authority of India (AAI)
2. Hindustan Newsprint Limited (HNL)
3. Telecommunications Consultants India Limited (TCIL)
4. Western Coalfields Limited

REQUIREMENTS OF WEAPON SYSTEM:

The Equipment used by the Indian Army. Most of the army equipment is of foreign design and produced under license in India but efforts are on to progressively design and manufacture equipment locally. The 41 Indian Ordnance Factories Board manufacture most of the Army equipment

like small arms, ammunition, combat vehicles, artillery, tanks etc.,

### ~~Small Guns~~: INFANTRY WEAPONS:

Small guns are classified as Handguns, Shotgun, SubMachine Guns (SMGs), Assault rifles, Sniper rifles, Machine Guns indigenous Guns, Grenade are comes under the materials of Infantry weapons.

### VEHICLES:

vehicles which are used in defence system are categorised under the classification of weapon system. Both Personnel carriers and war time vehicles are also under this group. Tanks, Infantry fighting vehicles, Armoured Personnel carriers, Tank destroyers, Reconnaissance vehicles, and some primary accessible vehicles such as mine protected, clearing and laying vehicles, Light utility & armoured vehicles such as car, bike, truck, Gypsy and soon.

Artillery, Missile Systems, Aircraft, Radar are some important divisions which are highly efficient for the National Security of the State.