

# Introduction to Industrial Management

## Assignment-Unit I

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1) Define System and Explain the System Analysis with Neat sketch.

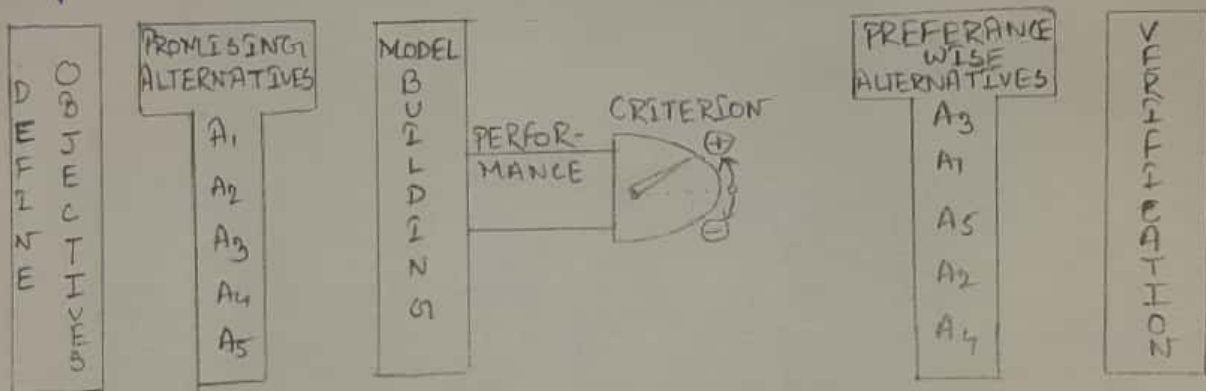
Ans- System - A system may be defined as a collection of interacting elements that operate to achieve a predetermined objective. In simple terms, a system may be visualised as a processing unit which receives certain input in the form of energy, matter, information etc. and is urged to act upon them in some desirable fashion to produce outputs in the form of product, service etc with a purpose to optimize some function of input and output.

Example - A human body is a system with various sub-systems like nervous, blood circulation, eating etc.

# System Analysis

Introduction - System analysis involves the study and construction of system. It is the study of each part of the system, both as an individual and in relation to the whole in order to design, modify or improve the system.

Procedure - System analysis involves a continuous cycle of the following -



① Define Objectives - It is the conceptual phase in which the objectives are clarified and defined with a view to select a policy regarding action or decision-making for solving the problem.

② Promising Alternatives - Promising alternative programmes which can possibly achieve the objectives are thought of and designed.

③ Model Building - Promising Alternatives can be shaped into models. A model is an analog of reality. It represents the system qualitatively or quan-



relatively. A model may be in physical form or it may be a mathematical presentation. It is always cheaper and convenient to forecast the consequences and to test the performance of a system. Depending upon the type of problem, there can be an overall process model, performance model, time model etc.

④ Criterion - The individual models are evaluated in terms of the criterion specified before. The criterion may be effectiveness, cost, performance or cost against performance etc.

⑤ Preference wise Alternatives - From the performance of models, various alternatives programmes are listed in order of preference.

⑥ Verification - The most promising alternatives are tested by experiments and their good points identified.

2) Define Management and Explain the Functions of Management in Detail.

Ans- Management - According to Harold Koontz, Management is an art of getting things done through and with the people in formally organised groups. It is an art of creating an environment in which people can perform and individuals and can co-operate towards attainment of group goals.

## Functions of Management

- ① Forecasting - Forecasting is a necessary preliminary to planning. It estimates the future work or what should be done in future, maybe as regards sales or production or any aspect of business activity.
- ② Planning - Planning all aspects of production, selling etc are essential in order to minimize intangibles. It is a rational, economic, systematic way of making decisions today which will affect the future. Without proper planning, the activities of an enterprise may become confused, haphazard and ineffective. So prior planning is very essential for utilizing the available facilities to the best of advantage.
- ③ Organising - Organising is the process by which the structure and allocation of jobs is determined. Organising involves determining activities required to achieve the established company objectives, grouping these activities in a logical basis for handling by subordinate, managers and finally assigning persons to the job designed.



④ Staffing - Staffing is the process by which managers select, train, retire subordinates. It involves the developing and placing of qualified people in the various jobs in the organization.

⑤ Directing - Directing is the process by which actual performance of subordinates is guided towards a common goal of the company.

Directing involves functions as -

a) Leadership - It is the quality of the behaviour of the person whereby they inspire confidence and trust in their subordinates.

b) Communication - It is the process by which ideas are transmitted, received and understood by others for the purpose of getting desired result.

c) Motivation - It means inspiring the subordinates to do a work as to achieve company objectives.

d) Supervision - It is necessary in order to ensure the work is going on as per the plan.

⑥ Coordinating - Coordinating means achieving harmony of individuals effort towards the accomplishment of company objectives.

⑦ Controlling - It is the process that measures current performance and guides it towards some predetermined goal.

It involves,

i) - the monitoring of activities to make sure that the end objectives are being met

ii) - the initiation of corrective action as required to over-come problems if any, hindering the accomplishment of objectives.

⑧ Decision Making - Decision making is the process by which a course of action is consciously chosen from available alternatives for the purpose of achieving desired goals.

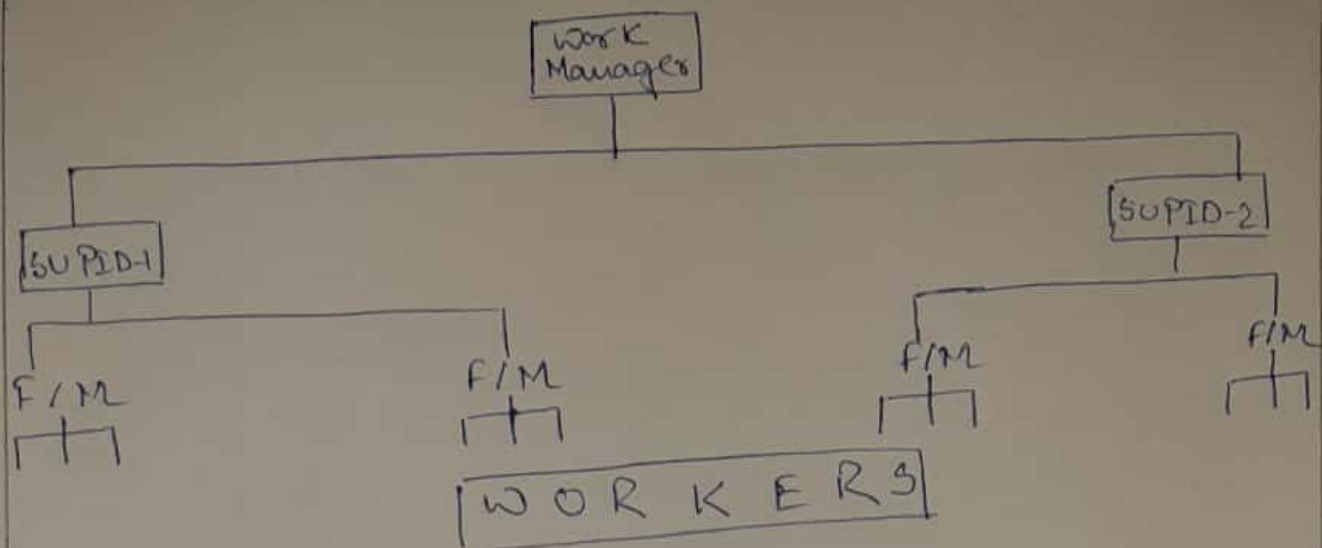
3) Explain the different types of organization structure along with advantages, disadvantages and application.

Ans a) Line, Military or Scalar Organisation. - It is

the simplest form of organisation structure.

It is called military organisation because it resembled to older military organisations.

The authority flow directly from the work manager to superintendent to foremen and from them to workers.



### Advantages -

- i) It is simple and easy to understand.
- ii) It is flexible, easy to expand and contract.
- iii) It makes clear division of authority.
- iv) There is clear channel of communication with no confusion at all.
- v) It encourages speedy action.

### Disadvantages -

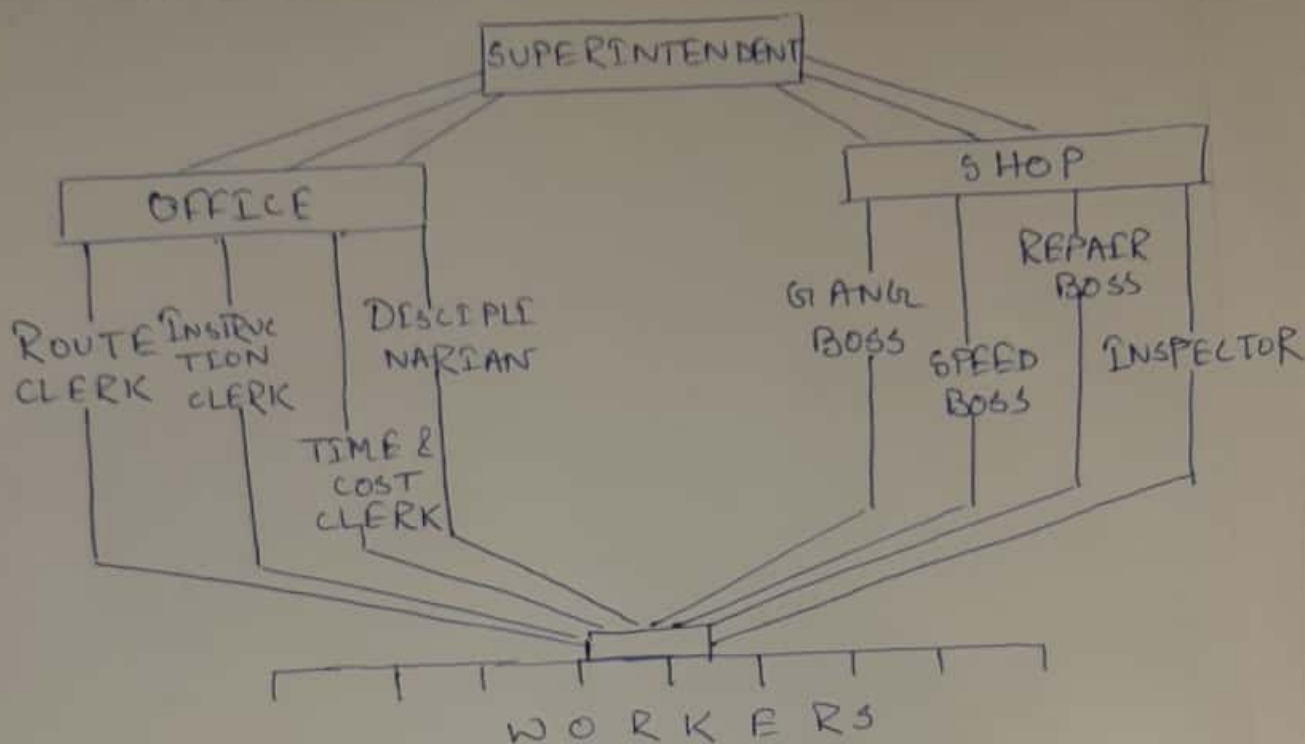
- i) It neglects specialists.
- ii) It overloads a few key executives.
- iii) It requires a high type of supervisory personnel to meet the challenges.
- iv) It is limited to very small concerns.

### Application -

- i) Small concerns free from all complexities.
- ii) Automatic and continuous process industries such as paper, sugar etc.



## b) Functional Organisation Structure



### Advantages

- i) Since a Foreman is responsible for one function, he can perform his duties in a better manner.
- ii) Functional organisation makes use of specialists to give expert advice to workers.
- iii) It relieves line executives of routine specialised decisions.
- iv) Quality of work is improved.

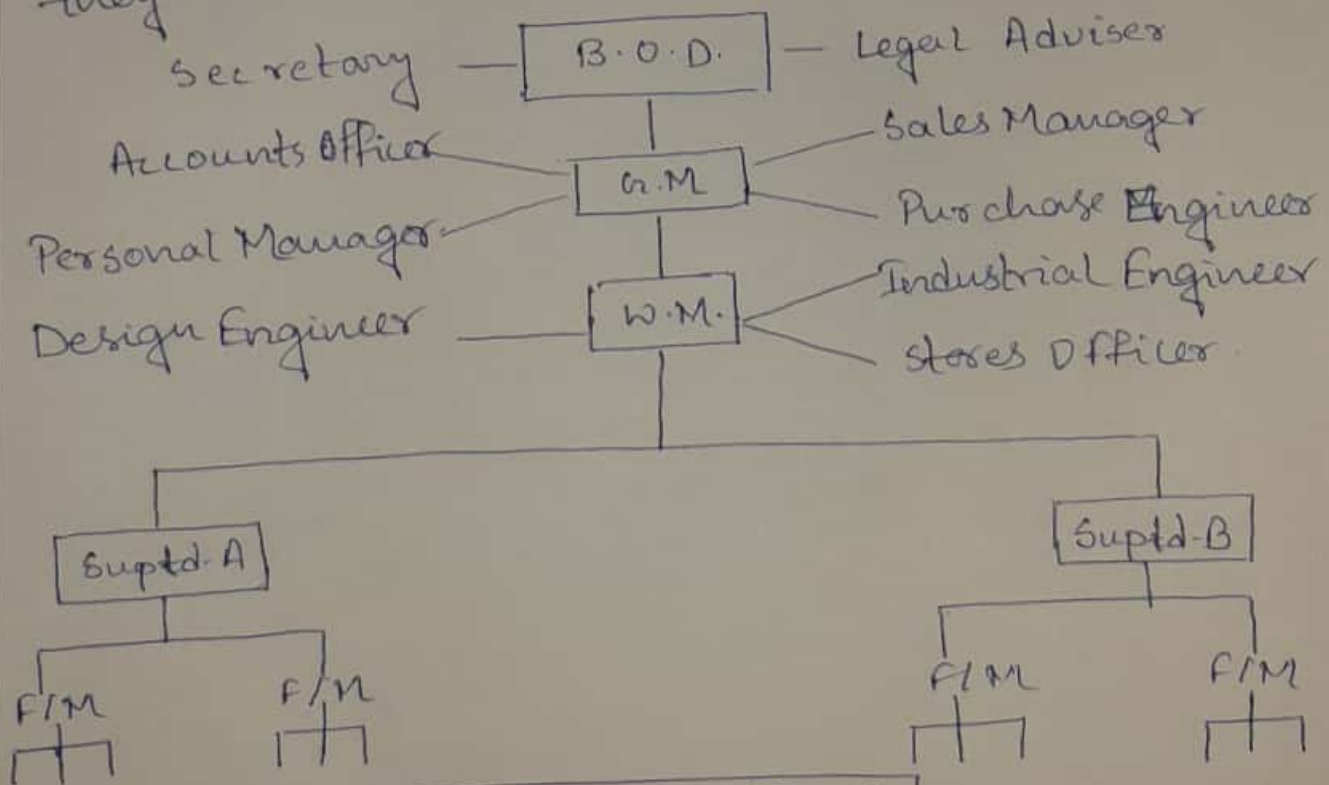
### Disadvantages

- i) Coordination of the efforts of various functional Foreman is difficult.
- ii) It is difficult to maintain discipline as each worker is responsible for eight foremen.
- iii) It is very difficult to fix up the responsibility to any one foreman in case something goes wrong.



Applications - In the modified form of this organisation it is frequently used in some most modern and advanced concerns.

c) Line & Staff Organisation Structure - As the industry grew in size, the line executives could not perform properly all other functions such as R & D, Planning etc. This necessitated the employing of special executives to assist line executives and they were known as staff.



### WORKERS

B.O.D - Board of Directors.  
 G.M - General Manager  
 W.M - Works Manager  
 Suptd - Superintendent  
 F/M - Foreman.

## Advantages

- 1) Expert advice from specialist staff executives can be made use of
- 2) Line executives are relieved of some of their loads.
- 3) Less wastage of material, man and machine hours.
- 4) Quality of the product is improved.

## Disadvantages

- 1) Product cost will increase because of high salaries of staff executives.
- 2) At times the staff department may infringe upon the rights and responsibilities of the line organisation thus weakening the line organisation.
- 3) Line and staff organisation may get confused in case functions are not clear.
- 4) Frictions and jealousies if developed between line and staff executives may cause harm to the enterprise.

Application - Line and staff organisation is very common among the medium and larger enterprise.



4)

Explain the following:

- a) Meaning and Importance of Division of Labour
- b) Scalar & Function Processes
- c) Span of control.
- d) Delegation of Authority.
- e) Centralization and Decentralization in Industrial Management

Ans

a) Meaning and Importance of Division of Labour

Meaning Division of Labour implies that work must be divided to obtain specialisation with a view to improve the performance of workers.

The classical theory rests on the assumption that more a particular job is broken into its simplest component parts, the more specialised a worker can become in carrying out his part.

Importance -

① Importance on Producers -

- i) Increase in Production
- ii) Reduction in the cost of production.
- iii) Maximum utilisation of Machinery.

② Importance on Consumers -

- i) Availability of commodities at a cheaper price.
- ii) Better quality of commodities.

### ③ Importance on Labourers --

- i) Increase in efficiency of Labour.
- ii) Increases Mobility of Labour.
- iii) Increase in Employment Opportunities.

### ④ Importance on Nations -

- i) Full utilization of Natural Resources.
- ii) It is an index of economic growth.

### b) Scalar & Functional Processes .

Scalar Process - It refers to the growth of chain of command, delegation of authority, unity of command and obligation to report.

It is called scalar process because it provides a scale or grading of duties according to the degree of authority. It generates superior-subordinate relationship in the organization.

Functional Process - The functional processes deals with the division of organization into specialised parts or departments and regrouping of the parts into compatible units.



c) Span of Control -

i) Wide span of control -

Pros:

- 1) Encourages Delegation - Managers must better delegate to handle larger numbers of subordinate
- 2) Agile - Improves communication speed

Cons:

- 1) High managerial workload
- 2) Role confusion more likely

ii) Narrow span of control -

Pros -

- 1) More rapid communication between small teams
- 2) Groups are smaller and easier to control

Cons:

- 1) Communication can take too long, hampering decision making
- 2) Employees may feel lost and powerless.

d) Delegation of Authority - The Delegation of authority is a process wherein, the manager divides his work among the subordinates and give them the responsibility to accomplish the respective tasks.

e) Centralization. It is the process of transferring and assigning decision making authority to higher levels of an organizational hierarchy. The span of control of top managers is relatively broad and there are relatively many tiers in the organization.

Decentralization - It is the process of transferring and assigning decision making authority to lower levels of organizational hierarchy. The span of control of top managers is relatively small and there are few tiers in the organization.

5) Explain meaning of organizational culture and climate and write down in detail factor affecting them.

Ans. Meaning of Organizational Culture - The culture of an organization refers to the unique configuration of norms, values, beliefs and ways of behaving that characterize the manner in which groups and individuals combine to get things done.

Factors Affecting the culture -

1) Structure - Feelings about constraints and freedom to act and the degrees of formality in the working atmosphere



i) Responsibility - the feeling of being trusted to carry out important work.

ii) Risk - the sense of riskiness and challenge in the job and in the organization.

iii) Warmth - the existence of friendly and informal social groups.

Meaning of Organizational Climate - A set of properties of the work environment, perceived directly or indirectly by the employees, that is assumed to be a major force in influencing employee behaviour.

Factors Affecting Culture Climate -

i) Structure Autonomy - The perception of self-determination with respect to work procedures.

ii) Cohesion - The perception of togetherness or sharing within the organization setting, including the willingness of members to provide material risk.

iii) Resource - The perception of time demands with respect to task competition and performance standards.

6) Define Moral and Explain Factors affecting moral in detail.

Ans- Moral - Floppo has described morale "as a mental condition or attitude of individuals and groups which determines their willingness to cooperate."

### Factors Affecting Moral

i) The Organization - The organization influences the worker's attitudes to their jobs. The public reputation of an organisation may build up for better or worse, their attitudes towards it.

ii) The Nature of work - Repetition of the same task makes the working situation worse.

iii) The Level of satisfaction - such as opportunities for promotions, job security, steadiness of employment, recognition etc.

iv) The Level of supervision - If employees are given freedom to do the job, their morale will be high.

v) Employee's Age - Age and morale are directly related. The older employees have more stability which comes with maturity.



7) Explain the Relationship between moral and productivity.

Ans Miller and Form have given four combinations of productivity and morale -

i) High Productivity - High Morale - when an individual is satisfied from job and prevailing environment

ii) Low productivity - High Morale - Lack of proper teaching of the employee, lack of administrative skill of the supervisor, defective materials, out-dated technology may lead to low productivity in spite of high morale

iii) High Productivity - Low Morale - Management may use strict supervision, prescribe punishment for low productivity.

iv) Low Productivity - Low Morale - It occurs when factors obtained in combination of high productivity high morale are lacking.

8) Define Job satisfaction and Explain in detail factors influencing Job satisfaction.

Ans Job satisfaction - Job satisfaction is any combination of psychological, physiological, environmental circumstances that cause a person truthfully say I am satisfied with my job.

Factors Influencing Job satisfaction.

i) Personal Factors. They include 1) workers gender, 2) Age, 3) Number of Dependents, 4) Time on Job, 5) Level and Range of Intelligence, 6) Level of education, 7) Attitude, 8) Personality, 9) Education, 10) Marital status etc.

ii) Factors Inherent in the Job - It found to be important in the selection of employees, 1) Nature of Job, 2) Skill Required, 3) Occupational status

iii) Factors controlled by Management 1) Security, 2) Fringe Benefits, 3) Co-workers, 4) Flow of communication, 5) working conditions, 6) Responsibility etc.



Q) Explain the Important provisions of factory act and labour laws.

- Ans
- 1) The Trade Union Act 1926 - Trade unions are a very strong medium to safe the rights of the employees. These union have the power to compel higher management to accept their reasonable demands.
  - 2) The Payment of Wages Act 1936 - This act ensures that workers must get wages on time and without any unauthorised deductions.
  - 3) Industrial Disputes Act 1947 - This act has the provisions regarding the fair dismissal of permanent employees. As per this law, a workers who has been employed for more than a year can only be dismissed if permission is sought from and granted by the govt office.
  - 4) Minimum Wages Act 1948 - This act ensures minimum wages to workers. This wage may range between as much as Rs 143 to 1126/day
  - 5) Maternity Benefits Act, 1961 - This act entitles maternity leave for pregnant woman employees. As per this act female workers are entitled to a maximum of 12 weeks (84 days) of maternity leave.