

Engineering Management & Economics

Paper Assignment :

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Engineering Management
& Economics.

Assignment.

Solution.

Q # 1.

Answer:-

- 1) Both science & art.
- 2) effective carrier planning.
- 3) All of the above.
- 4) Top Management level.
- 5) Planning.
- 6) organization.
- 7) Controlling.
- 8) Top management level.
- 9) Interpersonal skills.
- 10) Efficient.
- 11) Efficient.

x ————— x ————— x .

Engineering Management.

(Q#2 (a)) Answer:

A Manager's job is complex and multidimensional and requires a range of skills.

- Conceptual skill.
- Human skill.
- Technical skill.
- Diagnostic skill

=> Conceptual skill:

is the ability to see the organization as a whole and the relationship among its parts.

- Conceptual skill involves the manager's thinking, information processing and planning abilities.
- Knowing where one's department fits into the total organization and how the organization fits into the industry, the community, and the broader business and social environment.

Human Skill:-

is the ability to work with and through other and to work effectively as a group member.

- The ability to motivate, coordinate, lead, communicate and resolve conflicts.

- Relies on the quality of its people for its success.

- Likes other people are liked by other.

- Have a good judgement for decision such as hiring and setting company policy.

- Effective managers are cheer leaders, facilitators, coaches, and nurturers.

- Excellent managers don't take people for granted.

- Measures employees satisfaction using formal questionnaire.

- Getting things done through people.

Technical Skill:-

is the understanding of a good proficiency (skill, ability, talent) in the performing of specific task.

It includes mastery of methods, techniques and equipment involved in specific functions such as engineering, manufacturing, finance forecasting and marketing skills.
 ↳ Specialized knowledge, analytical ability, competent use of tools and techniques to solve problems in specific discipline.

Diagnostic Skill:-

managers ability to visualize the most appropriate response.

- Diagnose and analyze a problem and then developing a solution.

For example. high turnover - possible reason - dissatisfaction with pay or not favorable environment or poor interpersonal skill. find solution by interviewing of employees.



Q#2 (b)

Answer:

Authority:-

The formal and legitimate right of a manager to make decisions, issue orders and allocate resources.

=> Characteristic of authority:

- i) Authority is vested in organisational position not people: Because of position that manager holds.
- ii) Authority is accepted by employees: Authority flows top down through the organization's hierarchy, employees comply because they believe that managers have legitimate right to issue orders.

- iii) Authority flows down the vertical hierarchy: Position at the top of the hierarchy are vested with more formal authority than are positions at the bottom.

iv) Responsibility :

is the flip side of authority coin. It is the duty to perform the task or activity an employee has been assigned.

v) Accountability :

is the mechanism through which authority and responsibility are brought into alignment. It means that people with authority and responsibility are subject to reporting and justifying task outcomes to those above them in the chain of command.

vi) Delegation of Authority :

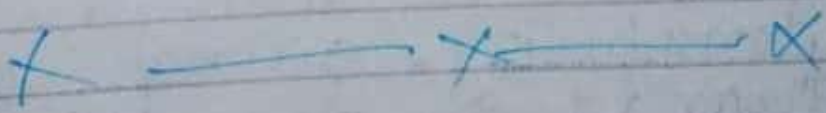
is the process by which a manager assigns a portion of his total work load to others. Subordinates help ease the manager assigns responsibility, giving the authority to do the job and establishing subordinate's accountability.

VII) Decentralization:

The process of systematically delegating of power and authority through out the organization to middle and lower level managers. Decision making power and authority are delegated as far as down the chain of command as possible.

VIII) Centralization:

The process of systematically retaining power and authority are with top managers. In times of crisis or risk, authority may be centralized at the top.



Q#3 (a)

Answer

Q: How does project emerge?

Answer

- Driven by a need.
- A desire for innovation and creativity:

Project defined as:

A project is a temporary endeavor undertaken to create a unique product, service or a result.

- A group of activities that have to be performed in a logical sequence to meet pre-set objectives outlined by a client. (Broke. 1992).

- A project can be defined as an activity with a specific goal occupying a specific period of time.

Project Characteristics:

All projects have characteristics common that set them apart from other operations.

- 1) Defined start and finish.
- 2) Time frame for completion.

- A point where it starts "time zero"
- A point where it finishes "delivery"
- The implication is a time scale. ✓

3) Uniqueness:

- A unique need distinguished from day to day operations.
- But potential repetition not barred subject to consideration of special circumstances.
- Can include contingency planning where start date is unknown. ✓

4) Involvement of several people:

- The project team.
- Those affected by the project (eg new plant operators).
- Provision for specific skills and approaches.

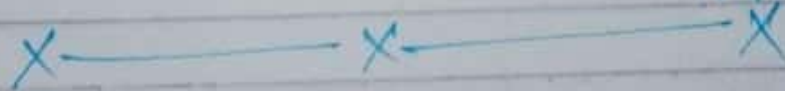
c) Limited resources:

- People, materials, money and time all constrained.
- Potential trade off b/w these possible.
- Potential of technology almost limitless.

d) Sequencing of activities:

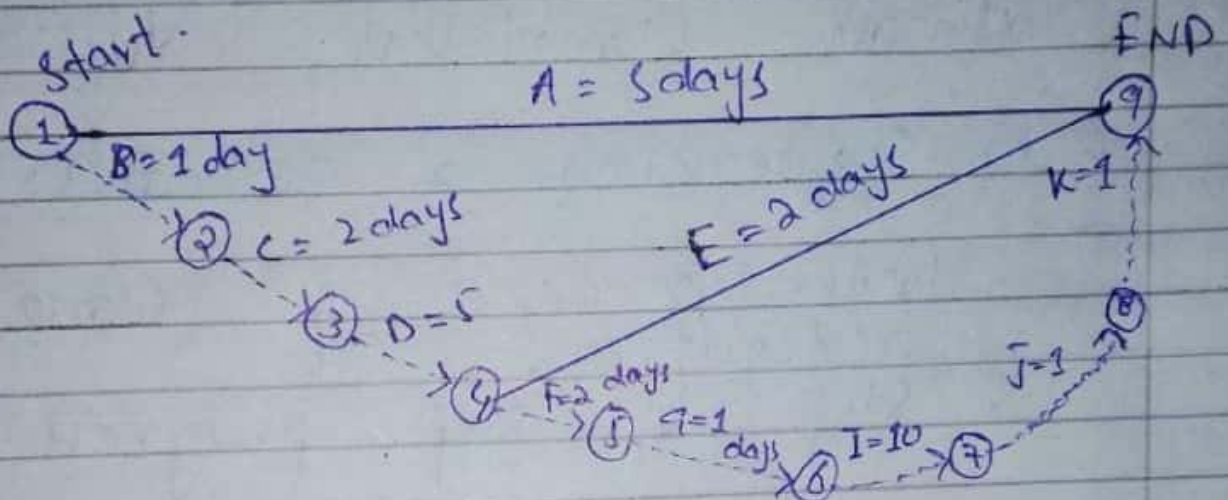
- Interdependence of some activities.
- Step by step progress.
- Opportunity for overlapping.
- Need for careful planning of step order.

The End.



(Q#3 (b).

Answer



Critical path: B C D E H I J K
= 26 days.

THANK YOU SIR.

The End.