



# Department of Electrical Engineering

**Subject: Engineering Management and Economic**

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Q 1

1: Engineering Management is:  
Both science and art.

A: An art

(B) Both science and art

C: A science

D: Neither art nor science

2: Engineers can become good  
managers only through Training

A: Experience

B: Taking master degree in management

C: Effective ~~case~~ career planning

(D) Trainings



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3. When engineer enters management what is the most likely problem he finds difficult to acquire? All of the above.

A: Learning to trust others.

B: Learning how to work through others.

C: Learning how to take satisfaction in the work of ~~others~~ others.

D: All of the above.

4. Strategic planning is undertaken in which management level.?

A. Lower management level.

B. Middle management level.

C. Top management level.

D. Lowest management level.



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5: What management functions refers to the process of anticipating problems, analyzing them, estimating their likely impact and determining actions that will lead to the desired outcomes and goals?

(A)

Planning

B:

Leading

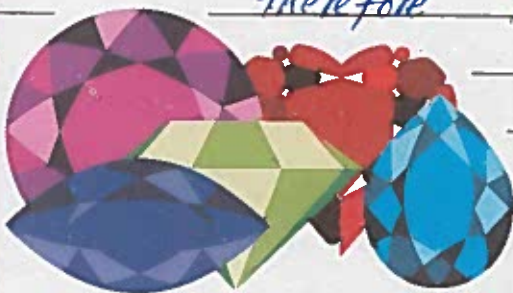
C:

Controlling

D:

organizing

6: Actual performance normally is the same as the original plan and therefore it is necessary to check for deviation and to take corrective action. This action refers to what management function?



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A organizing

B Planning

C controlling

D Staffing

8: Strategic planning is undertaken in which management level?

A: Lower management level

B: Middle management level

C: Top management level

D: Lowest management level



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9: For a project manager to achieve his given set of goals through other people he must have a good Leadership

A Interpersonal skills

B communication skills

C Leadership

D Decision-making skills.

10: An engineer is required to finish a certain engineering job in specific time. He is said to be Effective.

If he finished the job within the required specific time.



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A: Efficient

B: Effective

C: Reliable

D: Qualified

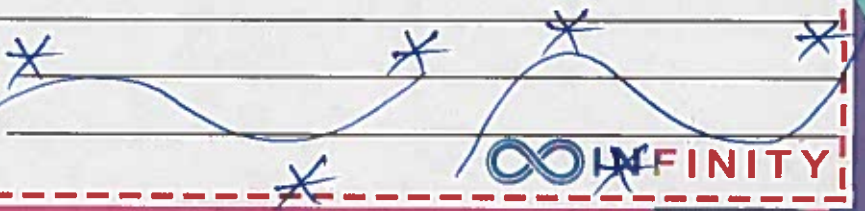
11: If an engineer provides less input (labor and materials) to this project and still come out with the same output he is said to be more.

A: Managerial skill

B: Economical

C: Effective

D: Efficient



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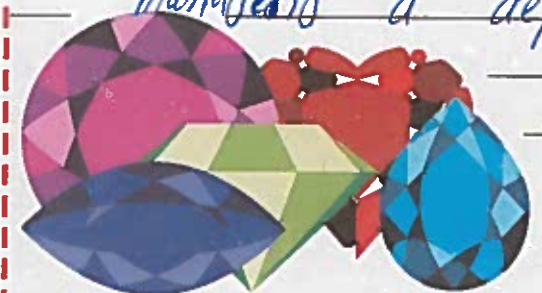
Q2: Part (A)

A Manager's job is complex and multidimensional and requires a range of skill. What are these skills. discuss in detail.

Solution:

A manager's job is complex and multidimensional and as we shall see through this book requires a range of the skills.

Although some management theorists propose a long list of skills. The necessary skills for managing a department or an organization can be summarized in three categories conceptual Human





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and technical.

### Types of Management Skill:-

According to American social and organizational psychologist Robert Katz the three basic types of management skills includes

#### Technical Skills:-

Technical skill involve skill that gives that manager the Ability and Knowledge to use a variety of techniques to Achieve their objectives.

These skill not only involve operating machine and software production tools and pieces of Equipment but also skills needed to boost sales design different types of products and service and market service and the product.



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### Conceptual skills:

These include the skill manager present is term of knowledge and ability for abstract thinking and formulating ideas. The manager is able to see entire concept, analyze and diagnose a problem and find creative solution.

### Human or Inter Personal skills:-

The human or the interpersonal skills are the skills that present the manager ability to interact work or relate effectively with people. These skills enable the manager to make use of human potential in the company and motivate the employees for better result.

### Characteristic of Project:

Well defined objective  
uniqueness (Non Routine Activity)  
complexity (Demand Team work)  
Life cycle.

Risk uncertainty  
change (in response to environment.)  
Non Recurring Duration of Activities  
uncertain.



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completion Deadline

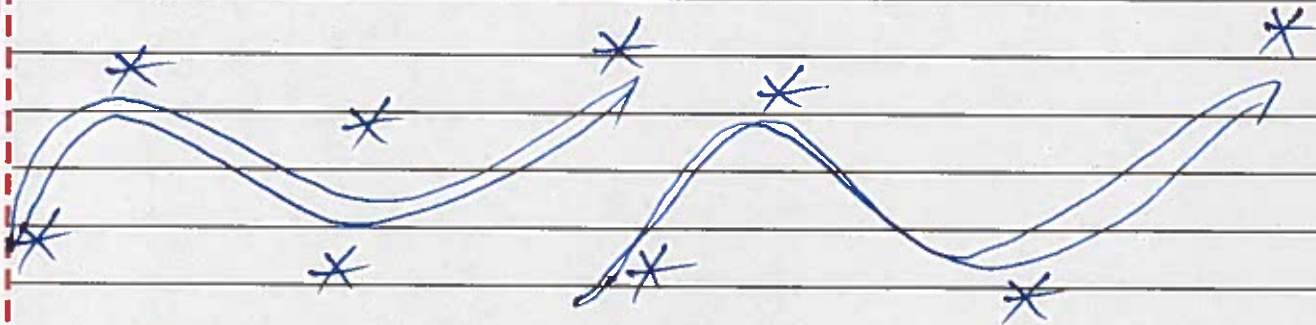
Involves Resources optimality

Multidisciplinary and interdependence

For casting Definit time limit Team  
work.

conflict for resources

A separate disposable term performance  
measurement.



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Q2: Part (B)

Briefly explain characteristics of authority.

Ans:

⇒ Authority:

Formal and legitimate right of a manager to make decisions issue order and to allocate resources to achieve organizationally desired outcomes.

⇒ Authority is distinguished by three characteristics:  
Authority is vested in organizational positions not people.

Authority is accepted by subordinate.

Authority flows down the vertical hierarchy.

⇒ Characteristics of Authority:

It is legitimate right to command and control subordinates.

Authority is granted to achieve the predetermined goal of the enterprise.



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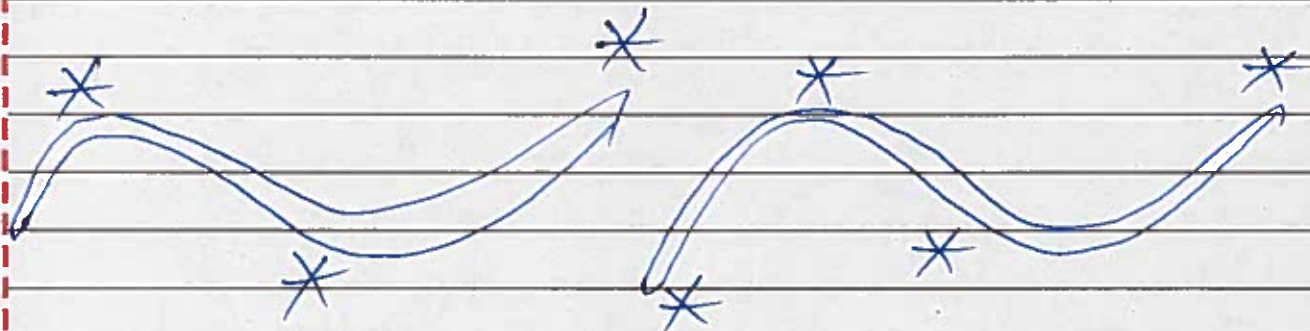


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Authority is right to direct others  
to get things done.

Authority is delegated downwards



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Q3 Part (A)

How does a project emerge? Describe its characteristics.

Solution: A project is emerged by an idea driven by a need, a desire for innovation and creativity and on addition to a school of thought or a body of knowledge. A project is a temporary endeavor undertaken to create a unique product, service or a result.

→ Characteristics of a project:

→ Components:-

\* A start

\* A process

\* A end



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contains resources, costs people timescales etc...

Project management is an applied subject

Effective project management is a mix of past experience.

Analytical techniques and a pragmatic approach to the problem in hand

There are no theoretical principles that must be followed.

However numerous methodologies have been proposed. A successful outcome to a project cannot be guaranteed but using a structured methodology can reduce the risk of failure.



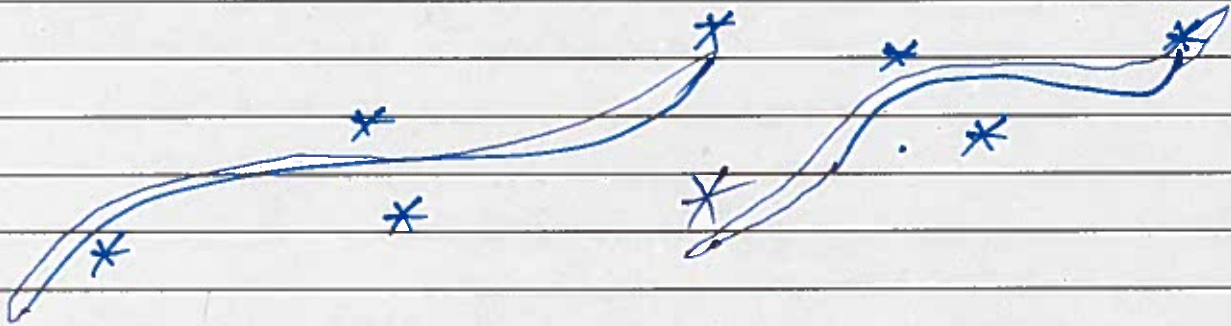
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A PM uses tools and skill to  
assess situation at hand and  
minimise risk of failure.



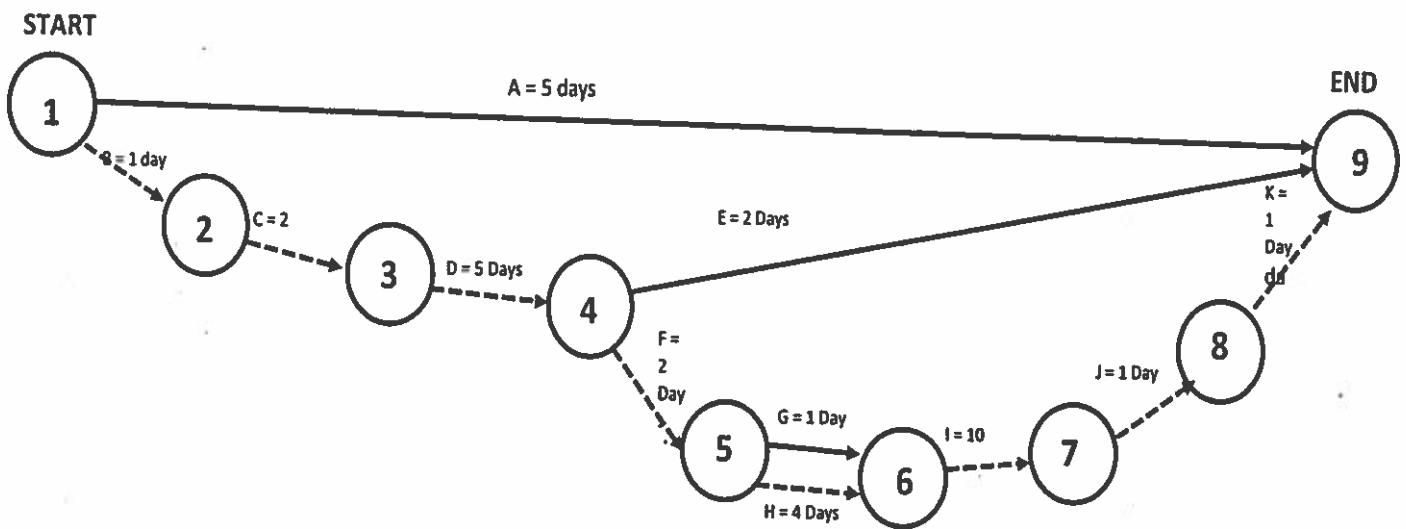




### Q3 part B:

An international conference is planned in Iqbal national university. The activities listed down with their predecessors and time taken. prepare a network diagram and determine the ~~the~~ critical path.

Digram



The End