

Department of Electrical Engineering
Engineering Management and Economics
Assignment
Spring-2019-20, Dated 13-4-2020

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Instr: Dr. Jehanzeb Khan
Time= 5 Days

Marks 30

Q.1: **10**

1. Engineering Management is:

- A. An art
- B. Both science and art
- C. A science
- D. Neither art nor science

2. Engineers can become good managers only through _____.

- A. Experience
- B. Taking master degree in management
- C. Effective career planning
- D. Trainings

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

- A. Learning to trust others
- B. Learning how to work through others
- C. Learning how to take satisfaction in the work of 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

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. What refers to the establishing interrelationships between people and things in such a way that human and materials resources are effectively focused toward achieving the goal of the company?

A. Planning

B. Leading

C. Controlling

D. Organizing

7. 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?

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

9. For a project manager to achieve his given set of goals through other people, he must have a good _____.



- 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 _____ if he finished the job within the required specific time.

- A. Efficient
- B. Effective
- C. Reliable
- D. Qualified

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

- A. Managerial skill
- B. Economical
- C. Effective
- D. Efficient

Q.2 a) A Manager's job is complex and multidimensional and requires a range of skills. What are those skills, discuss in detail.

5 Marks

b) Briefly explain characteristics of authority.

5 Marks

Q.3: a) How does a project emerge? Describe its characteristics.

5 Marks

b) An international Conference is planned in Iqra national University. The activities listed down with their predecessors and time taken. Prepare a network diagram and determine the critical path.

5 Marks

Activity	Precedence	Time
A Date, topics & Speaker	-	5 days
B Prepare logo & brochures	-	1 day
C Send letters to speakers	B	2 days
D Get confirmation from Speakers	C	5 days
E Send letters to participants	C,D	2 days
F Obtain travel plan from speakers	D	2 days
G Arrange Accommodation	F	1 day
H Get handouts from speakers	F	4 days
I Finalize Registration	G,H	10 days
J Setting of Hall	I	1 day
K Conduct of Program	J	1 day



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Program	BE (Electrical)
Semester	2 th
Submitted to	Dr. Jehanzeb

Q# 1

Answers

- 1) Both Science & Arts (B)
- 2)
- (3) All of the above (D)
- (4) Top Management level (C)
- (5) Planning (A)
- 6) Leading (B)
- (7) Controlling (C)
- (8) Top Management level (C)
- (9) Leadership (C)
- (10) Effective (B)
- (11) Economical (B)

Q#2 (A):-

Ans: Manager main role is to achieve tasks through others, they have to complete there tasks within the resource available (time, finence, human). Their jobs are complex and multidimensional for which they require different skills which are as follows,

a) Interpersonal skills:-

Interpersonal skills are behaviors and tactics a person uses to interact with others effectively. In the business world, the term refers to an employee's ability to work well with others. Interpersonal skills range from communication and listening to attitude and department

b) Communication skills:-

Communication skills are abilities you use when giving and receiving different kinds of information. Some examples include communicating ideas, feeling or what's happening around you. Communication skills involve listening, speaking, observing and empathizing. It is also helpful to understand the difference in how to communicate through face-to-face interaction, phone conversations and digital communication, like email and social media

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c) Conflict Management Skills:-

As we have established, the aim for professional should not be to avoid conflict, but to resolve it in an effective manner. Communicating clearly, empathetically and patiently leads to favorable outcomes & keeps professional relationship strong.

d) Leadership skills:-

Leadership skills are skills you use when organizing other people to reach a shared goal. Whether you are in a management position or leading a project. Leadership skill require you to motivate others to complete a series of tasks, often according to a schedule. Leadership is not just one skill but rather a combination of several different skills working together.

e) Efficiency & Effectiveness:-

Efficiency and Effectiveness are two words which are most commonly juxtaposed by the people, they are used in place of each other however they are different.

Question 2 (B):-

Ans:-

Authority:-

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

Authority is distinguished by three characteristics:-

- 1) Authority is vested in organizational positions, not people.
- 2) Authority is accepted by subordinates.
- 3) Authority flows down vertical hierarchy.

Characteristics of Authority:-

- 1) It is legitimate right to command and control subordinates
- 2) Authority is granted to achieve the predetermined goal of the enterprise.
- 3) Authority is right to direct others to get things done.
- 4) Authority is delegated downwards.

Question #3 (A)

Answer:-

Project:-

A project is temporary group activity designed to produce a unique product, service or result.

A complex nonroutine, one time effort limited by time budget resources and performance specification designed to meet customer needs.

Major characteristics of a project:-

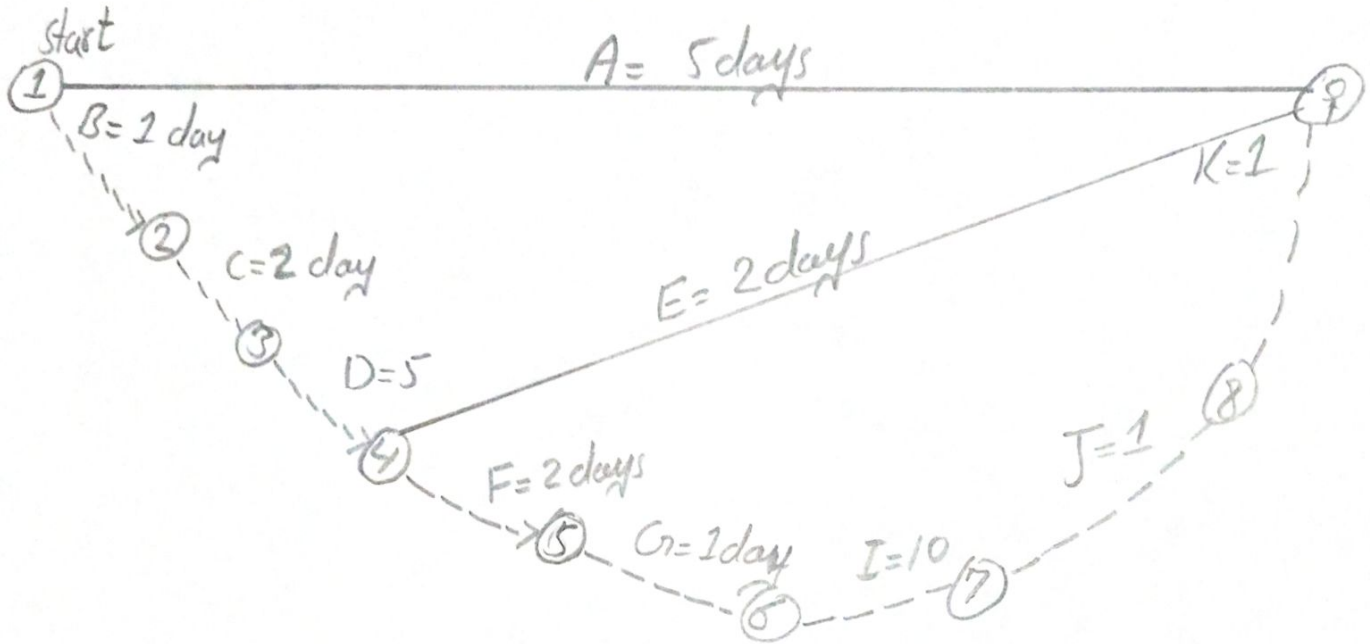
- 1) Has an established objective
- 2) Has a defined life span with a beginning and an end
- 3) Typically requires across the organizational participation
- 4) Involves doing something never been done before
- 5) Has ~~specific~~ specific time, cost and performance requirements

Characteristics of Project:-

- Time Frame
- Pre-Planned
- Uniqueness

Q#3 (b)

Answer:-



critical path : B C D F H I J K
• 26 days