



Nilachal Polytechnic Bhubaneswar

NOTE

Sem. : 6th

Subject : Construction Management (CM)

Branch : Civil Engineering

Name of the Faculty : MADHUSMITA BISWAL

Sec : A

Sec: B

Text Book to be followed by Student / Faculty

Book-1 : P.S.GAHLOT & B.M.DHIR

Ch. No. : 1

Name:- Introduction To Construction Management

1.Learning Objectives

Student will learn

i)About the significance of construction management

ii)about the various resources required for construction works

iii)about the importance of construction team & state the role of its constituents

2.Essential Questions (Fundamental Question)

i) What do you mean by construction team? Name the components of a construction team.

ii) Who holds the ultimate power of decision making in a construction team and why?

iii) What is the role of Civil and Structural engineers in a construction team?

3. Hours Required

Theory	2hrs
Problems	Not required
Question & Answer Theory	1 hr
Total	3 hrs

4. Question for Teaching / Assignment / Self Practice

	02 Marks	05 Marks	10Marks
Teaching	3 nos	1 nos	1 nos
Assignment	4 nos	1 nos	1 nos
Self Practice	3 nos	1 nos	1 nos
Total	10 nos	3 nos	3 nos

Lesson Description (Abstract of the Chapter) in the bullet form

Building a shelter was perhaps the earliest construction activity undertaken by a man.

Construction work is an integral part of development projects in every sector of our economy.

Enclosed :

1. Course Material.
2. Question Set.

Faculty

HOD

Principal

Course Material

CHAPTER 1

Introduction To Construction Management

CONSTRUCTION MANAGEMENT

The process of implementation of management principles in construction procedures and methods is called construction management.

Aims and objectives of construction management

Following are the various Aims and Objectives of construction management:

- a) Completing the work within estimated budget and specified time.
- b) Evolving a reputation for high quality workmanship.
- c) Providing safe and satisfactory working condition for all personnel and workers.
- d) Taking proper decisions at the most practical level through delegation of authority.
- e) Motivating people to put their best effort.
- f) Create an environment of encouragement to work as a team.

Functions of Construction Management

1. Planning and Scheduling-

Planning- This method includes finding various alternatives, evaluating all the alternatives, and finding out the best alternative for any particular construction work or method.

Scheduling- Scheduling is the process of fitting the best alternative to a time scale. In shortly, scheduling means when to perform what construction work.

2. Organising- Organising is the process of division of construction work into various manageable departments.



3. **Staffing-** Staffing is the process of recruitment of proper candidate to proper department.
4. **Directing-** Directing is the process of assigning various task to the individuals or employees and directing them with proper guidance to perform the specified task.
5. **Controlling-** Controlling is the process in which the performance of doing a task is checked, evaluated, assessed properly for efficiency and any change or problem in the task is identified, corrected and implemented. This increases the efficiency of the organisation.

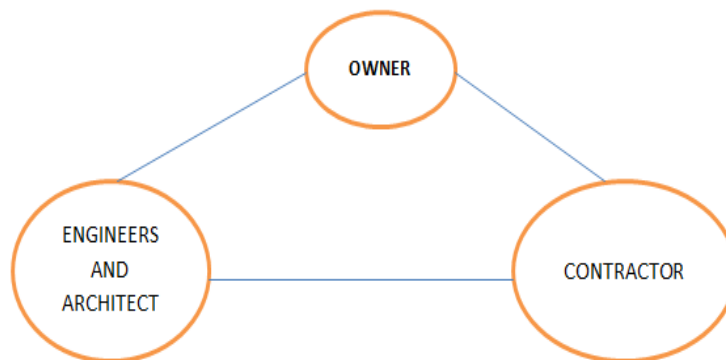
6. **Co-ordinating-** Co-ordinating is the process in which the members of the organisation co-ordinate with each other for completion of a task. It can be intra-department or inter-department coordination.

CONSTRUCTION TEAM

The Construction team consists of a Owner, Engineers, and Contractors.

1. **Owner-** Owner is a person/a group of person who take the final decision of any construction activity. The owner holds the authority of financing the construction work. Any change in the scope, plan or schedule of any construction activity is approved by the owner.
2. **Engineers/Architects-** Engineers are the technical employees who take care of all the technical works of a project. The Engineers includes all core branches like Civil, Mechanical, Electrical Engineers that execute their individual roles at the project site. The Architects beautifies the building and increases its aesthetic aspect.
3. **Contractor-** The contractor of any construction project takes care of all aspect like providing construction materials, arranging labour and equipment for construction work.

Relationships within a construction Team



RESOURCES FOR CONSTRUCTION INDUSTRY

1. **Materials-** Bricks, Stones, Cement, aggregates, steel, shuttering, scaffolding, timber, water-supply arrangements, plumbing materials, etc.
2. **Human Resource-** Technical Manpower (Engineers, Architects, Surveyors) and Labours(Skilled, Semi-Skilled, Unskilled)
3. **Machinery-** Construction equipment like rollers, vibrators, mixers, tower cranes, transit or miller trucks, dumpers, etc.
4. **Space-** Space is of utmost importance for construction activities like storing material, site office, for placing of equipments, for carpentry works.

5. Funds- The most important resource for any construction industry is fund. Without proper funds the construction work cannot progress at all.

QUESTION SET

Teaching

Group – A

1. What is directing?
2. What is controlling?
3. What are the resources for construction industry? [2014-W, 2012(W)]

Group - B

1. Explain the objectives of construction management. [2011(W)]

Group - C

1. What are the various components of a construction team? Briefly explain.

Assignment

Group – A

1. What do you mean by construction management?
2. What do you mean by construction team? Name the components of a construction team.
3. Who holds the ultimate power of decision making in a construction team and why?
4. What is the role of Civil and Structural engineers in a construction team?

Group - B

1. Draw a schematic diagram showing the relationship between components of a construction team.

Group - C

1. Define construction management and explain various management functions involved in construction management. [2013(w)]

Self Practice

Group – A

1. What is organizing?
2. What is staffing?
3. Why are contractors necessary in a construction team?

Group – B

1. What are the main objectives of construction management?

Group - C

1. Explain various resources required in Construction Industry.