

Sub Code: **CET-401**

ROLL NO.....

**SEMESTER EXAMINATION, 2022-23
YEAR**

Programme – Ist Yr. M.Tech – STRUCTURE AND CONSTRUCTION ENGINEERING

Advance Construction Technology

Duration : 3:00 hrs

Max Marks: 100

Note:-Attempt all questions. All Question carry equal marks. In case of any ambiguity or missing data, the same may be assumed and state the assumption mad in the answer.

Q 1. Answer any four parts of the following.

- a) What do you mean by demolition of buildings.
- b) What are the requirements of an ideal structural joint.
- c) List machinery and equipment used for concrete work.
- d) State pile accessories used in construction.
- e) Define terms: Dynamite, Blasting cap, Prime line, Steaming.
- f) List any five advance type of civil engg. structures.

Q 2. Answer any four parts of the following.

- a) Give classification of piles based on function or use.
- b) Differentiate between deep foundation and shallow foundation.
- c) Explain the situation in which deep foundation is required.
- d) Differentiate between friction pile and end bearing pile.
- e) Explain function of sheet pile. Classify sheet piles based on material used.
- f) List pile driving methods. Explain hammer driving method in detail.

Q 3. Answer any two parts of the following.

- a) State factors influencing the selection of piles.

b) What is dewatering? Explain the necessity of dewatering.

c) State the hoisting equipment used in civil engg construction. Draw any one and show its component.

Q 4. Answer any two parts of the following.

a) State the factors affecting selection of hauling equipments and hoisting equipments.

b) Discuss main features of bituminous road construction.

c) State advantages of slip formwork. Draw sketch of slip form work and show components on it.

Q 5. Answer any two parts of the following.

a) Explain working of clam shell with neat sketch.

b) Explain classification of piles based on function and material used.

c) Write short note on :

(a) Under reamed pile (b) cofferdam and caisson.