

Total No. of Questions : 08

**Ph.D (Civil Engineering)
ADVANCED CONSTRUCTION TECHNOLOGY**

M.Code : 92304

Date of Examination : 16-08-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carry TWELVE marks.

1. What are Earthen Dams? Discuss the design considerations of earthen dams.
2. Discuss in detail 'Monitoring of post construction behaviour of earthen dams'. Show some light on the instruments which you will employ to study the behaviour.
3.
 - a) What are functions of cooling towers? How are these designed?
 - b) Explain with sketches the various methods of dewatering.
4. Discuss in detail the architectural and structural aspects of High rise construction. What are the disadvantages of high rise construction?
5.
 - a) What are the advantages of prefabricated construction?
 - b) Discuss with examples the concept of modular coordination and tolerances with reference to prefabricated structures.
6. Give the causes for loss of prestressing force in prestressed concrete. Indicate the approximate value for each. Also describe the prestressing systems.
7.
 - a) What are geosynthetics? What are their functions?
 - b) Differentiate between geo-textiles and geo-grids.
8. Write short note on :
 - a) Sealants and adhesives
 - b) Epoxy resins

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.