

Evening

D. - 14/05/2014.

Student Exam No: _____

GANPAT UNIVERSITY
B.TECH SEM VI CIVIL ENGINEERING
REGULAR EXAMINATION MAY - 2014
2CI606 ADVANCED CONSTRUCTION TECHNOLOGY

Time: 3 Hours

Max Marks: 70

- Instructions: - (1) Answer to the two sections must be written in separate answer books.
(2) Figures to the right indicate full marks.
(3) Assume suitable data if required.

SECTION - I

- Q1(A) What is meant by tilting of caissons? What are its reasons? How the tilted (6)
caissons can be brought in correct position?
- (B) Describe the method of repairing and retrofication of earthquake damaged (6)
structures.

OR

- Q1(A) What is meant by prestressed concrete? What are the advantages and (6)
disadvantages of it? Describe the method of post-tensioning.
- (B) What is caisson sickness or diseases? What are the precautions to be taken to (6)
avoid caisson diseases?

- Q2(A) A construction machine costs Rs. 25,000 and has an expected life of 8 years and (6)
salvage value of Rs. 3,900. It is expected to work 4000 hours in a year/Compute
the yearly depreciation for the machine using decline balance method.
- (B) Describe the evaluation of demolition methods. (5)

OR

- Q2(A) What is monolith? List out use of monolith. Write down advantages and (6)
disadvantages of monolith.
- (B) Define caisson. Describe the various construction materials used for caissons. (5)

- Q3(A) Write down different types of hoist equipment. Describe gantry crane. (4)
(B) Write down short note on bulldozer and scraper. (4)
(C) Describe in details bucket conveyor and aerial ropeway. (4)

SECTION – II

- Q4(A) Write a short note on cellular cofferdams. (6)
(B) What are the various reasons for pulling out of piles from their positions? What are the methods adopted for it? (6)

OR

- Q4(A) Write short note on (i) Rock fill Cofferdams (ii) Movable cofferdam (6)
(B) Write a short note on Steel Piles. (6)

- Q5(A) Write a short note on different materials used in formworks. (6)
(B) Describe freezing process for dewatering. (5)

OR

- Q5(A) Enlist different methods of ground water control and explain pumping method in detail. (6)
(B) What are slip forms? Explain their operation and mention their uses. (5)

- Q6(A) Write short note on (i) Earth fill Cofferdams (ii) Sand-bag cofferdam. (6)
(B) Write a short note on non - load bearing piles. (6)

END OF PAPER