

GANPAT UNIVERSITY

B.Tech. VI<sup>th</sup> Semester Civil, Regular Examination – MAY/JUNE: 2012

C-606:ADVANCED CONSTRUCTION

Max.Time: 3 Hours

Max. Marks: 70

Exam. No. of the candidate: \_\_\_\_\_ Supervisor's dated initial: \_\_\_\_\_

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

Q.1 (A) Draw neat sketch of common shape of pre-cast RCC sheet pile and common forms of steel sheet piles. 6

(B) What are the points considered while selecting the pile? 4

(C) Discuss pile cap and pile shoe with figure. 5

Q.2 (A) Define the cofferdam. Write down use of cofferdam. What are the points to be kept in mind while constructing a cofferdam 6

(B) Explain economic height of cofferdam 4

(C) Write short notes on (a) box caisson (b) pneumatic caisson 5

OR

Q.2 (A) Why formwork is necessary? What are the requirements of good formwork? 6

(B) Explain with neat sketches. The formwork for RCC column. 4

(C) Describe the timber formwork. What are the facts to be considered while using timber formwork? 5

Q.3 Define the following: (Any one) 5

(A) (a) Epicenter (b) magnitude of earthquake

(B) (a) Continuous belt (b) pulleys

## Section – II

Q.4 Attempt the following:(Any Three)

15

- (A) Briefly explain types of earth quake and waves
- (B) Describe well point system with neat sketch. What are its advantages and disadvantages?
- (C) Describe with various stages of vibrofloatation.
- (D) Explain importance of ductility in seismic design

Q.5 Attempt the following:(Any Two)

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- (A) Write a short note on (a) cement grouting (b) chemical grouting
- (B) Explain use of an excavator and discuss different types.
- (C) Define (a) good structural configuration (b) ductility

Q.6 Explain the following : (Any Two)

10

- (A) Explain with neat sketch. the Structure of "EARTH"
- (B) What is meant by prestressed concrete? What are the advantages and disadvantages of it?
- (C) Discuss about the important point to be considered while construction of Tall and Special structure.

OR

Q.6 Write a short note on : (Any Two)

10

- (A) Group of Pile
- (B) Earth quake Resistance construction
- (C) Pre-tensioning method and Post tensioning method

**"END OF PAPER"**