



**SF-8320**

**B. E. - III (Sem. - VI) (Civil) Examination**

**May/June - 2011**

**Advanced Construction Technology**

*(New Syllabus)*

Time : 3 Hours]

[Total Marks : 100

**Instructions :**

(1)

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<input type="text" value="B. E. - 3 (SEM. - 6) (CIVIL)"/>	<input type="text" value="Student's Signature"/>
Name of the Subject :	
<input type="text" value="ADVANCED CONSTRUCTION TECHNOLOGY (NEW SYLLABUS)"/>	
Subject Code No. : <input type="text" value="8"/> <input type="text" value="3"/> <input type="text" value="2"/> <input type="text" value="0"/> Section No. (1, 2,.....): <input type="text" value="Nil"/>	

- (2) Figures to the **right** indicates full marks.  
(3) Draw neat sketch whenever necessary.  
(4) Answer should be to the point.

- 1 (a) Explain under reamed pile with neat sketch. **8**  
(b) Enlist methods of control of ground water in excavation using well point system. **6**

**OR**

- (c) Explain economic height of cofferdam.
- 2 (a) Define "Cofferdam". State uses of cofferdam and explain selection of type of cofferdam. **6**  
(b) Explain pile load test with neat sketch. **6**  
(c) Draw a neat sketch of formwork for column and explain it. **6**

**OR**

- (c) List type of centering for arches and explain any one.
- 3 Write any **three** of the following short notes : **12**  
(i) Pile cap and Pile shoe.  
(ii) Advantages and disadvantages of steel pile  
(iii) Raymond Pile  
(iv) Slip formwork

- 4 (a) Sketch pneumatic caisson foundation and explain the functions of air lock system along with constructional features of pneumatic caisson. **6**

**OR**

- (a) State types of caisson. Discuss with sketch the stages of construction of cylindrical open caisson (well caisson).
- (b) Discuss the points to be kept in mind for earthquake resistant construction of building. **6**
- (c) Explain arrangement of reinforcement to make building earthquake resistant. **6**
- 5 Attempt any **two** of the following : **12**
- (i) Draw necessary sketch to explain the component and function of wall foundation. Give its advantages.
- (ii) What is Caisson sickness ? What are its causes and preventive measures ?
- (iii) Enlist methods of demolition of structure and explain any two in detail.
- 6 Write any **four** short notes : **20**
- (i) Pre-tensioning method
- (ii) Double well cofferdam
- (iii) Tilting of caisson
- (iv) Loads on Caisson
- (v) Monoliths
- (vi) Cutting edges
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