



KD-6044

B. Arch. IV (Sem. VII) Examination

December - 2012

**ARC : 702 : Building Materials & Construction
Technology : Paper - VII
(New Course)**

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दशांशवैक निशानीवाणी विगतो उत्तरवही पर अवश्य लपखी. 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"/>
B. ARCH. IV (SEM. VII)	<input type="text"/>
Name of the Subject :	
ARC : 702 : Building Materials & Construction Technology- VII (New)	
Subject Code No. : <input type="text"/> 6 <input type="text"/> 0 <input type="text"/> 4 <input type="text"/> 4	Section No. (1, 2,.....) : <input type="text"/> Nil

- (2) Figures to the right indicate full marks.
- (3) All questions have to be attempted in one answer sheet only.
- (4) Support your answers with neat and clean sketches wherever necessary.

1. (A) Answer in brief: (Any Five)

15

- 1 What is a Rating System with respect to Green Buildings? Enlist various rating systems popularly followed in different countries of the world.
- 2 Enlist various tangible/ intangible benefits as well as constraints of Green Buildings.
- 3 Mention the key areas to evaluate the performance of building under LEED rating system.
- 4 Explain the meaning of "Selectively applicable criteria" as mentioned in GRIHA.
- 5 Mention the prerequisite and other credit aspects for "water efficiency" criteria of LEED-NC checklist.
- 6 What is the objective of the criteria "Optimize building design to reduce conventional energy demand" of GRIHA? Mention any two commitments to fulfill the criteria.

- (B) Discuss in brief (Any Three) 15**
- 1 What are the components of sustainable landscape?
 - 2 Discuss some of the key ideas for day-light feasibility.
 - 3 "Storm-water management is an integral part of green building movement"; discuss the checklist for the same.
 - 4 What are the cardinal rules for a closed-loop building material strategy?
- 2**
- (A) Explain construction system used in any one existing suspension cable bridge (stage wise) with respect to following aspects : 15**
 General details, Foundation system, Materials and Construction system used, Problems encountered during its construction and its solution, Any advanced system used for bridge.
- (B) Write short notes On (Any Two) 10**
1. *Problems in construction with concrete in high rise building*
 2. Top Down Construction Technique
 3. Slip Form Technique
 4. Construction system used in any one existing tall building along with its general details.
- 3. Attempt any Two 30**
- 1 Discuss the concept of smart buildings and energy management systems.
 - 2 Explain in detail any two salient features related to "Green Building Construction", and implemented in any of the project rated under a specific rating programme viz LEED/GRIHA or equivalent.
 - 3 Explain "sustainable sites" category of LEED-NC in detail.
- 4. Write Short Notes on: (Any Three) 15**
1. Light emitting concrete
 2. Application of carbon fiber in construction technology
 3. "Nano Technology is the future in Building Construction" justify the statement
 4. Use of any one metal in building construction with its properties
 5. *Stamped concrete and its various applications*