



SD-6711

B. Arch. - III (Sem. - V) Examination

May / June - 2011

(AR - 506) Building Services : II

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दशांशवैक - 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" value="B. Arch - 3 (Sem - 5)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="(AR - 506) Building Services : 2"/>	<input type="text"/>
Subject Code No. : <input type="text" value="6"/> <input type="text" value="7"/> <input type="text" value="1"/> <input type="text" value="1"/>	<input type="text"/>
Section No. (1, 2,.....): <input type="text" value="Nil"/>	<input type="text"/>
	Student's Signature

- (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 Answer in one or two line each : 10

- (1) Explain refrigerant cycle.
- (2) Which are the situations most likely to require air-conditioners ?
- (3) Explain the horizontal and vertical transportation system with its organization chart.
- (4) What do you understand by cooling load of an AC ?
- (5) What do you understand by cassette type AC ?

- 2 (a) Explain typical passenger lifts with schematic plans, sections and necessary views and its basic principle of functioning. 8
- (b) Explain difference between AC and desert coolers with diagrams. 7

OR

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[Contd...

- (b) Discuss the importance of regular maintenance of AC system. 7
- 3** (a) Answer in brief : **10**
 Explain split type AC. with schematic sketch. Suggest installation diagrams for 20 mt. × 14 mt. meeting hall with height of 3.5 mts. Having capacity for 60 persons in hall mentioning its capacity and other necessary details.
- (b) Short notes : (any **three**) **15**
 (1) Branches of non-ducted air condition with its basic explanations for all the types.
 (2) Service lifts
 (3) Advantage and disadvantage of Central A.C.
 (4) Hydraulic lifts.
- 4** (a) True or False : **10**
 (1) "STC" value helps in assessing sound insulating properties of the materials.
 (2) An open plan office with a lot of disturbance due to computer keys can have sound masking device.
 (3) Musical concerts require more reverberation time as compared to lecture halls.
 (4) Reverberation is a phenomenon which depends upon area alone of the enclosure.
 (5) Sound behaves in the same manner as wind.
 (6) The bathroom singers experience a rich quality of sound due to good absorbancy of bathroom tiles.
 (7) The magnitude of sound is expressed in m/sec.
 (8) When you talk to your friend it is 100 dB level of sound.
 (9) The rear walls of an auditorium have absorbent finish.
 (10) The speed of sound in m/sec is 100.
- 5** (a) What are the methods to control sound propagation by manipulation of reflective property and absorptive property, discuss with a seminar hall example ? **10**
- (b) Discuss salient features of recording studio design, and its typical cross section. Draw and label any one joinery detail. **15**

OR

(b) Discuss salient features of an auditorium hall design meant for 200 people seating capacity, and its typical cross section. Draw and label any one joinery detail. **15**

6 Short notes : (any **three**) **15**

- (1) Absorption coefficient for building materials.
 - (2) Construction details of any type of sound absorbent walls in auditoriums
 - (3) Out door sound propagation
 - (4) Movie hall sound system
 - (5) Noise reduction strategies.
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