



**UG-6711**  
**B. Arch. III (Sem. V) Examination**  
**May/June - 2012**  
**AR - 506 : Building Services - II**

Time : 3 Hours]

[Total Marks : 100

**Instructions :**

(1)

<p>नीचे दृष्टावेव निशानीवाणी विगतो उत्तरवही पर अवश्य लपनी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : B. Arch. III (Sem. V)</p> <p>Name of the Subject : AR - 506 : Building Services - II</p> <p>Subject Code No. : 6 7 1 1 Section No. (1, 2,.....): Nil</p>	<p>Seat No. : □ □ □ □ □ □</p> <p style="text-align: center; border: 1px solid black; border-radius: 15px; padding: 10px;">Student's Signature</p>
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- (2) Figures to the right indicate total 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 Fill in the blanks. 10

- (1) Air conditioners are generally sold as per \_\_\_\_\_ capacity.
- (2) \_\_\_\_\_ size of passenger lift is sufficient for 4-5 persons.
- (3) An \_\_\_\_\_ is a vertical transport vehicle that efficiently moves people or goods between floors of a building.
- (4) The passenger traction lift has \_\_\_\_\_ cables.
- (5) The presence of \_\_\_\_\_ in air is called humidity.
- (6) The \_\_\_\_\_ is a centrifugal type fan that pumps air.
- (7) Split A.C. is \_\_\_\_\_ noisy compared to window A.C.
- (8) \_\_\_\_\_ lift size can accommodate stretchers, coffins, furniture and wheel chair.
- (9) The comfortable range of temperatures are \_\_\_\_\_ during summers and \_\_\_\_\_ during winters in tropical climate like India. (deg Celsius)

- (10) \_\_\_\_\_ type of cooling devices are suitable for desert areas.
- 2** (a) Explain hydraulic lifts (6-8 persons) with schematic plans, sections and necessary views and its basic principle of functioning. **10**
- (b) Explain schematic chart of different components required for central air conditioning. **10**
- OR**
- (b) Discuss briefly the components of window type AC unit and its advantages over split unit. **10**
- 3** (a) Short notes. (any two) **10**
- (1) Branches of non-ducted air condition with its basic explanations for all the types.
- (2) Panoramic lifts.
- (3) Advantage and disadvantage of central A.C.
- (4) Traction lifts.
- (b) Answer in brief. **10**
- Explain cassette type AC. Draw schematic cassette A.C. installation diagrams for 25 mt. × 12 mt. meeting hall with height of 3.5 mts. Having capacity for 120 persons in hall mentioning its capacity and other necessary details.
- 4** (a) What are the methods to control sound propagation by manipulation of reflective property and absorptive property? discuss with a multiplex 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 a lecture hall design meant for 200 people seating capacity, and its typical cross section. Draw and label any one joinery detail.

**Q.5 Short Notes (ANY THREE)**

**(15)**

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

**Q.6 Fill in the blanks**

**(10)**

1. 'STC' value helps in assessing \_\_\_\_\_ properties of the materials.
2. An open plan office with a lot of disturbance due to computer keys can have \_\_\_\_\_ as sound masking device.
3. Musical concerts require ideal reverberation time = \_\_\_\_\_ secs
4. Reverberation is a phenomenon which depends upon \_\_\_\_\_ and \_\_\_\_\_
5. Sound behaves in the same manner as \_\_\_\_\_
6. The bathroom singers experience a rich quality of sound due to \_\_\_\_\_
7. The magnitude of sound is expressed in \_\_\_\_\_
8. The range of sound pressure level (dB) from 'very faint' to 'painful' is \_\_\_\_\_
9. The rear walls of an auditorium have \_\_\_\_\_ finish
10. The speed of sound in m/sec is \_\_\_\_\_