Sub Code: NAR506/RAR506

Paper Id: 181516 Roll No: | | | | | | | | | | | | | |

BARCH

(SEM-V) THEORY EXAMINATION 2019-20

ARCHITECTURAL SERVICES-IV/III

Time: 3 Hours ***Total Marks: 50***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

2. Make neat sketches to support your answers.

SECTION A

1. Attempt *all* questions in brief. 2x5 = 10

a. What is the difference between Lifts and Escalators?

b. What is Cooling tower?.

c. What are dampers in an air distribution system?

d. What is the unit of air conditioning?

e. What is a Duct in Air-conditioning system?

SECTION B

2. Attempt any *five* of the following: 3 x 5 = 15

a. Explain Psychometric chart in detail with examples.

b. Discuss the safety systems incorporated in a Lift.

c. Discuss the various components in an air distribution system.

d. Explain evaporative cooling system. Discuss the passive application of it in architectural design

e. Discuss the classification of lifts based on usage.

f. What is Thermal Comfort? Discuss various factors that affect Human Comfort.

g. What are dehumidifiers? Discuss their working in brief.

h. What are Travellators? where and why they need to be provided?

SECTION C

3. Attempt any *one* part of the following: 5 x 1 = 5

(a) Explain an AHU with the help of a typical cross section.

(b) Sketch a typical section through a lift.

4. Attempt any *one* part of the following: 5 x 1 = 5

(a) Suggest and elaborate in detail the working of the type of air-conditioning system that should be provided in a commercial Office complex.

(b) Explain in detail the complete refrigeration cycle.

5. Attempt any *one* part of the following: 5 x 1 = 5

(a) Discuss the two types of Lifts systems in. Support your answer with sketches.

(b) Discuss traction lifts and elaborate on its various components.

6. Attempt any *one* part of the following: 5 x 1 = 5

(a) Discuss the design consideration for location and arrangements of lifts in any commercial building.

(b) What are the various types of air conditioning systems? Discuss the difference between unitary and central air conditioning systems

7. Attempt any *one* part of the following: 5 x 1 = 5

(a) What is an escalator? Discuss the various components of an escalator.

(b) Discuss the various lift control operations systems.

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