

B.ARCH THIRD YEAR FIRST SEMESTER SUPPLEMENTARY- 2025

SERVICES & EQUIPMENTS-I

Time: 3:00 Hrs.

Full Marks: 100

Answer all

1. a) Draw a 'P-trap' and a 'S-trap' used in plumbing system showing water seal, inlet, outlet clearly.
b) Describe the role of water seal associated with traps.
c) Will you use these types of traps in water supply network?
d) Draw a sectional sketch showing different important elements of water supply system in a double storied residential building from Municipality mains to toilet & kitchen. Assume water supply from municipality will be intermittent.
 $6+2+2+15=25$
2. Write short notes on - (any five) (Use appropriate sketches)
a) Centrifugal pump, b) Aeration in water treatment, c) Refuge area, d) Grease trap, e) Double stack plumbing system, f) Rainwater Recharge Pit, g) Valve, h). Full form of - WC, FT, PRV, GI, CPVC.
 $5 \times 5 = 25$
3. a) Why lift / elevator used in a building?
b) When will you use escalator instead of elevator? Explain with 2 different scenarios.
c) What are the features to be checked before ordering for a passenger elevator for G+11 building?
d) Write the names of 4 nos. of elevator manufacturing companies available in India.
e) Draw typical plan/s, section/s neatly showing all important components of an elevator well with machine room of 4 storied Residential building.
 $2+4+6+2+11=25$
4. a) Why Septic Tank and Soak Pit is necessary for a residential project?
b) Is it possible to complete a residential project without septic tank? Explain with important points.
c) Write 2 nos. of differences between Septic Tank and STP?
d) Show different important features of a standard underground septic tank and soak pit with the help of appropriate drawings (plans & sections).
 $4+4+2+15=25$