

- Q.25 Draw the cross section of a septic tank .
- Q.26 What are the types of traps useful for toilets, bathroom and kitchen ?
- Q.27 What is the litre per capita per day (lpcd) water demand ?
- Q.28 Write a short note about Elevators and its types.
- Q.29 What is a plumbing layout plan of a building floor ?
- Q.30 Draw a section of lift core.
- Q.31 Discuss the methods of Rainwater harvesting.
- Q.32 What is a fire protection system ?
- Q.33 Draw an electrical layout plan of a living room .
- Q.34 Draw the sketch of a manhole .
- Q.35 Differentiate between window AC and split AC.

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain the single pipe and double pipe plumbing system in a building.
- Q.37 Draw the Reflected ceiling plan of a 12m x 20m assembly Hall clearly showing the HVAC and electrical fixtures.
- Q.38 Describe the types of thermal insulation materials and their uses.

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### 3rd Sem / Architectural Subject:- Building Services

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Bathroom taps fixed on walls are known as :  
a) Bib Cock                      b) Basin Mixer  
c) Pillar Cock                    d) Flush Cock
- Q.2 What is the daily water demand in a metropolitan City provided with piped water supply where sewerage system is existing:  
a) 75 lpcd                          b) 90 lpcd  
c) 150 lpcd                        d) 185 lpcd
- Q.3 For calculating the person or load handling capacity of a lift the weight per person is taken as:  
a) 50kg                              b) 68kg  
c) 98kg                              d) 100kg
- Q.4 Unit of space ventilation in terms of air changes is :  
a) ACPH                            b) PCPH  
c) ACPM                            d) PCPM
- Q.5 Bottle trap can be used for :  
a) W.B.                              b) W.C.  
c) Floor                              d) Roof

- Q.6 MCB stands for :
- Minimum Circuit Blockage
  - Miniature Circuit Breaker
  - Mono circuit Blocker
  - Mega circuit Breaker
- Q.7 Relatively clean waste water from bath, sink and washing machine is called :
- White water
  - Blue Water
  - Grey Water
  - Black Water
- Q.8 STP stand for :
- Sewage treatment Plant
  - Solid treatment Post
  - Small Tropical Plant
  - Small Tensile post
- Q.9 Unit of sound absorption is :
- Sabin
  - dB
  - Hertz
  - Seconds
- Q.10 Which of the following shall not be considered as an emergency escape mean during the fire hazard in a building:
- Staircase
  - Ramp
  - Escalator
  - Elevator

## SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 What is noise ?
- Q.12 Define Reflux valve .
- Q.13 Define Lift Pit .
- Q.14 What is ground water recharging?
- Q.15 Define Reverberation time .
- Q.16 What is an Electric Sub-station (ESS)?
- Q.17 Define Stack effect.
- Q.18 Define Emergency egress.
- Q.19 Define mechanical ventilation.
- Q.20 Define Solar Panel.

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What is alternate current and how is it useful in buildings ?
- Q.22 What are the factors affecting the stormwater drainage plan of a site ?
- Q.23 What is the function of a soak pit ?
- Q.24 What is the HVAC duct ? Draw a sketch of any HVAC duct.