

1. The theory of plasticity pertaining to soils is based on \_\_\_\_\_
  - a) Mohr's theory
  - b) Rankine's method
  - c) Mohr-coulomb theory
  - d) None of the mentionedAns: a
2. On designing retaining walls it is necessary to take care of \_\_\_\_\_ exerted by soil mass.
  - a) Erosion
  - b) Lateral pressure
  - c) Surcharge
  - d) Lateral stressAns: b
3. The material retained or supported by the retaining structure is called \_\_\_\_\_
  - a) Surcharge
  - b) Support wall
  - c) Back fill
  - d) All of the mentionedAns: c
4. The coefficient of earth pressure when the soil is at equilibrium is \_\_\_\_\_
  - a)  $\sigma_v / \sigma_h$
  - b)  $\sigma_h / \sigma_v$
  - c)  $\sigma_v \times \sigma_h$
  - d)  $\sigma_1 / \sigma_3$Ans: b
5. The computation of stress in plastic equilibrium is based on \_\_\_\_\_
  - a) Theory of plasticity
  - b) Mohr's theory of rupture
  - c) Rankine's theory
  - d) All of the mentionedAns: a
6. The wedge-shaped portion of the backfill tending to move with the wall is called \_\_\_\_\_
  - a) Wedge fall
  - b) Active fall
  - c) Failure wedge
  - d) None of the mentioned

Ans: c

7. In an active stress, the major principal stress  $\sigma_1$  acting on the wall will be in \_\_\_\_\_ plane.

- a) Vertical
- b) Horizontal
- c) Inclined
- d) Zero

Ans: a

8. The plastic state of stress was proposed by \_\_\_\_\_

- a) Mohr
- b) Rankine
- c) Coulomb
- d) Darcy

Ans: b

9. The position of the backfill lying above horizontal plane at the top of wall is called \_\_\_\_\_

- a) Active state
- b) Plasticity
- c) Surcharge
- d) Slip lines

Ans: c

10. What will be the co-efficient of passive earth pressure, at a depth of 8m in cohesion less soil sand with an angle of internal friction of  $30^\circ$  when water rises to the ground level?

- a) 4
- b) 5
- c) 3
- d) 1

Ans : c