

UNIT – III : Stress Distribution & Compaction

1. Boussinesq theory is used for
a) Compaction
c) Consolidation
b) Stress distribution
d) Classification
Answer: b
2. Boussinesq theory assumes soil is
a) Homogeneous, isotropic, elastic
c) Anisotropic only
b) Plastic
d) Cohesionless only
Answer: a
3. Newmark's influence chart is used to determine
a) Settlement
c) Permeability
b) Stress under loaded areas
d) Compaction
Answer: b
4. Pressure bulb represents
a) Water pressure
c) Shear zone
b) Stress influence zone
d) Compaction zone
Answer: b
5. Compaction is
a) Removal of air from voids
c) Addition of water
b) Removal of water only
d) Weathering
Answer: a
6. Maximum dry density occurs at
a) LL
b) PL
c) OMC
d) SL
Answer: c
7. OMC stands for
a) Optimum Moisture Content
c) Ordinary Moisture Content
b) Original Moisture Content
d) Optimum Material Content
Answer: a
8. Standard Proctor Test is used for
a) Shear strength
c) Permeability
b) Compaction characteristics
d) Consolidation
Answer: b
9. Sheep foot roller is suitable for
a) Clay soils
b) Gravel
c) Rockfill
d) Sand only
Answer: a
10. Vibratory roller is suitable for
a) Clay
b) Sand and gravel
c) Organic soil
d) Peat
Answer: b
11. Compaction increases
a) Void ratio
b) Compressibility
c) Density
d) Settlement
Answer: c
12. Compaction decreases
a) Strength
b) Density
c) Permeability
d) Water content
Answer: c
13. Relative compaction is expressed as
a) Percentage
b) Ratio
c) Degree
d) Fraction
Answer: a
14. Field density is measured using
a) Core cutter
b) Sand replacement
c) Both a and b
d) None
Answer: c

15. Stress below a point load decreases with

- a) Depth increase
- c) Both a and b

- b) Distance increase
- d) Moisture content

Answer: c

16. Westergaard theory assumes soil is

- a) Reinforced with sheets
- c) Cohesionless only

- b) Homogeneous liquid
- d) Organic

Answer: a

17. Compaction improves

- a) Bearing capacity
- b) Stability

- c) Strength
- d) All of these

Answer: d

18. Dry density is highest at

- a) OMC
- b) LL

- c) PL
- d) SL

Answer: a

19. Compaction mainly removes

- a) Solids
- b) Air

- c) Water
- d) Clay

Answer: b

20. Field compaction quality control is based on

- a) Relative compaction
- c) Shrinkage limit

- b) Liquid limit
- d) Specific gravity

Answer: a