

UNIT – V : Canal Systems and Drainage

1. Canal alignment refers to
 - a) Route of canal
 - b) Canal discharge
 - c) Canal lining
 - d) Canal slope**Ans: a**
2. Canal losses occur mainly due to
 - a) Seepage and evaporation
 - b) Rainfall
 - c) Infiltration only
 - d) Runoff**Ans: a**
3. The discharge for which a canal is designed is called
 - a) Peak discharge
 - b) Design discharge
 - c) Critical discharge
 - d) Unit discharge**Ans: b**

4. A rigid boundary channel is generally lined with
 - a) Concrete
 - b) Sand
 - c) Silt
 - d) Gravel**Ans: a**
5. Alluvial channels carry
 - a) Sediment load
 - b) Pure water
 - c) Groundwater
 - d) Wastewater only**Ans: a**

6. Kennedy's theory is used for
 - a) Stable channel design
 - b) Well design
 - c) Rainfall analysis
 - d) Hydrograph analysis**Ans: a**

7. Lacey's theory applies to
 - a) Alluvial channels
 - b) Rigid channels
 - c) Pipelines
 - d) Wells**Ans: a**

8. A non-modular outlet is also known as
 - a) Module
 - b) Orifice outlet
 - c) Flexible outlet
 - d) Semi-module**Ans: c**

9. A modular outlet delivers discharge
- a) Independent of water levels
 - b) Dependent on downstream level
 - c) Dependent on upstream level
 - d) Equal to rainfall

Ans: a

10. Semi-modular outlets are also called
- a) Flexible outlets
 - b) Proportional outlets
 - c) Free outlets
 - d) Pipe outlets

Ans: b

11. Waterlogging results from
- a) Rise in groundwater table
 - b) Low rainfall
 - c) High evaporation
 - d) Canal lining

Ans: a

12. Waterlogging adversely affects
- a) Crop growth
 - b) Soil aeration
 - c) Soil productivity
 - d) All of the above

Ans: d

13. Canal lining is provided mainly to
- a) Reduce seepage losses
 - b) Increase seepage
 - c) Increase sediment deposition
 - d) Reduce discharge

Ans: a

14. Which of the following is a type of canal lining?
- a) Concrete lining
 - b) Brick lining
 - c) Bituminous lining
 - d) All of the above

Ans: d

15. Surface drainage removes
- a) Excess surface water
 - b) Groundwater only
 - c) Canal water
 - d) Reservoir water

Ans: a

16. Subsurface drainage is mainly used to
- a) Lower water table
 - b) Increase runoff
 - c) Increase seepage
 - d) Increase evaporation

Ans: a

17. One effect of waterlogging is
- a) Reduced crop yield
 - b) Increased soil aeration
 - c) Increased bearing capacity
 - d) Increased infiltration

Ans: a

18. Drainage of irrigated lands is necessary to
- a) Prevent salinity and waterlogging
 - b) Increase runoff
 - c) Reduce rainfall

d) Increase evaporation

Ans: a

19. Canal outlets are structures used to

- a) Deliver water from distributaries to fields
- b) Measure rainfall
- c) Store groundwater
- d) Reduce evaporation

Ans: a

20. Proper canal lining improves

- a) Water-use efficiency
- b) Seepage losses
- c) Waterlogging
- d) Soil erosion

Ans: a

Fill in the Blanks

1. An artificial channel carrying water for irrigation is called a _____.

Answer: canal

2. Canal alignment is selected based on topography and _____.

Answer: economy

3. Water lost through canal bed and sides is called _____ loss.

Answer: seepage

4. Design discharge is the maximum flow carried by a _____.

Answer: canal

5. Concrete-lined canals are examples of _____ boundary channels.

Answer: rigid

6. Channels flowing through alluvial soil are called _____ channels.

Answer: alluvial

7. Kennedy's theory is based on critical _____.

Answer: velocity

8. Lacey's theory is based on _____ conditions.

Answer: regime

9. Canal outlets distribute water from distributaries to _____.

Answer: fields

10. A non-modular outlet depends on both upstream and downstream _____ levels.

Answer: water

11. Semi-modular outlets depend mainly on _____ water level.

Answer: upstream

12. Modular outlets deliver discharge independent of _____ levels.

Answer: water

13. Rise of groundwater table near the surface is called _____.

Answer: waterlogging

14. Excess irrigation may cause _____.

Answer: waterlogging

15. Waterlogging reduces crop _____.

Answer: yield

16. Canal lining reduces _____ losses.

Answer: seepage

17. Concrete, brick, and stone are common canal _____ materials.

Answer: lining

18. Drainage removes excess _____ from soil.

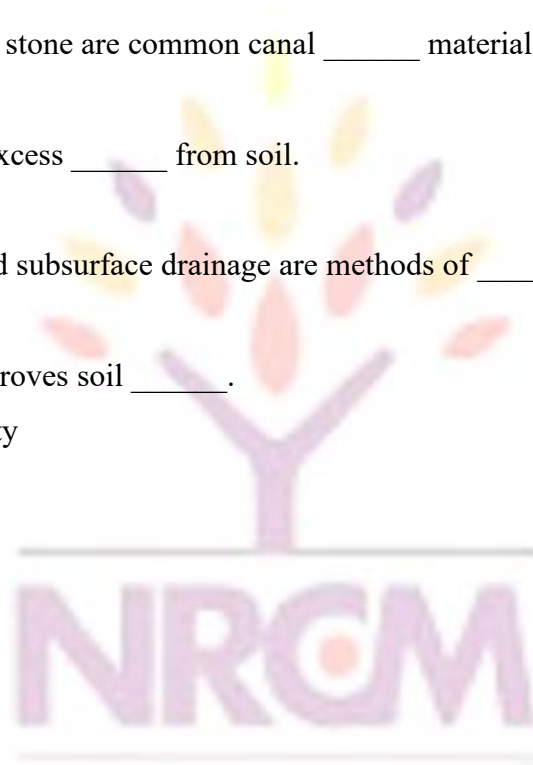
Answer: water

19. Surface drainage and subsurface drainage are methods of _____.

Answer: drainage

20. Proper drainage improves soil _____.

Answer: productivity



NARSIMHA REDDY
ENGINEERING COLLEGE