



NABARD Grade A

Main Exam Paper II Minor Irrigation (Water Resources) Practice Set

1. Water contains

- A. One hydrogen atom and one oxygen atom
- B. Two hydrogen atoms and one oxygen atom
- C. One hydrogen atom and two oxygen atoms
- D. Three hydrogen atoms and two oxygen atoms

Answer: B

2. Unit Hydrograph theory was enunciated by

- A. Merrill Bernard
- B. W.W. Horner
- C. Le-Roy K. Sherman
- D. Robert E. Horton.

Answer: C

3. The theory of infiltration capacity was given by

- A. Merrill Bernard
- B. W.W. Horner
- C. Le-Roy K. Sherman

D. Robert E. Horten.

Answer: D

4. Hydrology helps in

- A. Predicting maximum flows
- B. Deciding the minimum reservoir capacity
- C. Forecasting the availability of quantity of water at reservoir site
- D. All the above.

Answer: D

5. Pick up the correct statement from the following:

- A. Rivers, lakes, oceans and springs get water from the rains
- B. Rain water is obtained by evaporation from rivers, lakes and oceans
- C. Water remains in atmosphere as vapours
- D. All the above.

Answer: D

6. Pick up the correct statement from the following:

- A. Rain which is intercepted by buildings, vegetation's and other objects, is generally known as rainfall interception
- B. The difference between the total rainfall and intercepted rainfall, is generally called ground rainfall
- C. When rainfall exceeds the interception rainfall, water reaches the ground and infiltration starts
- D. All the above.

Answer: D

7. The surface Run-off is the quantity of water

- A. Absorbed by soil
- B. Intercepted by buildings and vegetative cover
- C. Required to fill surface depressions
- D. That reaches the stream channels

Answer: D

8. Pick up the correct equation from the following:

- A. Run off = Surface run off + Ground water flow
- B. Run off = Surface run off - Ground water flow
- C. Run off = Surface run off / Ground water flow
- D. Run off = Surface run off x Ground water flow.

Answer: A

9. Infiltration capacity of soil depends upon

- A. Number of voids present in the soil
- B. Shape and size of soil particles
- C. Arrangement of soil particles
- D. All the above.

Answer: D

10. The main factor which affects the infiltration capacity, is

- A. Thickness of saturated layer
- B. Depth of surface detention
- C. Soil moisture
- D. All the above

Answer: D

11. Absolute humidity in air

- A. Decreases at higher altitudes
- B. Increases at higher altitudes
- C. Remains constant at all altitudes
- D. None of these.

Answer: A

12. Precipitation caused by lifting of an air mass due to the pressure difference, is called

- A. Cyclonic precipitation
- B. Convective precipitation
- C. Orographic precipitation
- D. None of these

Answer: A

13. The standard height of a standard rain gauge, is

- A. 10 cm
- B. 20 cm
- C. 30 cm
- D. 50 cm.

Answer: C

14. In India, rain fall is generally recorded at

- A. 8 A.M.
- B. 12 Noon
- C. 4 P.M.
- D. 8 P.M.

Answer: A

15. A recording type rain gauge

- A. Produces a mass curve of rain fall
- B. Records the cumulative rain
- C. Is sometimes called integrating rain gauge or continuous rain gauge
- D. All the above.

Answer: D

16. In India the recording type rain gauge generally used, is

- A. Weighing type
- B. Tipping type
- C. Float recording type
- D. None of these.

Answer: C

17. The deficiency in rain catch due to vertical acceleration of air forced upward over the gauge, is

- A. Greater for heavy rain
- B. Greater for lighter rain
- C. Greater for large drops
- D. Lesser for small rain drops.

Answer: B

18. If a gauge is installed perpendicular to the slope, its measurement is reduced by multiplying

- A. Sine of the angle of inclination with vertical
- B. Cosine of the angle of inclination with vertical
- C. Tangent of the angle of inclination with vertical

D. Calibration coefficient of the gauge.

Answer: B

19. For determination of average annual precipitation in a catchment basin, the best method is

- A. Arithmetical method
- B. Thiessen's mean method
- C. Isohyetal method
- D. None of these.

Answer: C

20. The critical depth in a channel can be produced

- A. By raising the bottom of the channel
- B. By lowering the bottom of the channel
- C. By decreasing the width of the channel
- D. Both (a) and (c) of above.

Answer: D

21. A hydraulic jump in a control meter will be formed above the control, if it's original

- A. Depth is more than critical depth
- B. Depth is less than the critical depth
- C. Depth is equal to critical depth
- D. None of these.

Answer: B

22. If y is the depth of water at any section, then the mean velocity is

- A. $0.1 y$

B. 0.2 y

C. 0.3 y

D. 0.6 y

Answer: D

23. The initial basin recharge is equal to

A. Interception

B. Depression storage

C. Rain absorbed by the moisture deficiency

D. All the above.

Answer: D

24. From the Survey of India map, the distance of the critical point is 20 km and difference in elevation is 193 m. The over land flow time, is

A. 2 hours

B. 3 hours

C. 2 hours and 30 minutes

D. 4 hours

Answer: D

25. The run off a drainage basin is

A. Initial recharge + ground water accretion + precipitation

B. Precipitation + ground water accretion + initial recharge

C. Precipitation - ground water accretion + initial recharge

D. Precipitation - ground water accretion - initial recharge.

Answer: D