

**IBPS AFO MAINS QUESTION BANK BY INDIAN IQ**

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**Topic- Irrigation**

1. Which irrigation method is most suitable for row crops and vegetables with infiltration rates between 0.5-2.5 cm/hour?

- A) Flood irrigation
- B) Check-basin irrigation
- C) Furrow irrigation
- D) Sprinkler irrigation
- E) Drip irrigation

Correct Answer: C) Furrow irrigation

2. Consider the following statements about water use efficiency:

- 1) Crop water use efficiency is the ratio of crop yield to evapo-transpiration.
- 2) Field water use efficiency includes total water used in the field.

Which of these statements is/are correct?

- A) Only 1
- B) Only 2
- C) Both 1 and 2
- D) Neither 1 nor 2
- E) None of the above

Correct Answer: C) Both 1 and 2

3. What is the primary purpose of agricultural drainage in crop production?

- A) To increase soil salinity
- B) To remove excess water to create favourable soil conditions
- C) To enhance deep percolation losses
- D) To reduce soil fertility
- E) To promote weed growth

Correct Answer: B) To remove excess water to create favourable soil conditions

4. The practice of growing crops in passages formed by trees to enhance soil fertility is known as:

- A) Avenue cropping
- B) Alley cropping
- C) Border cropping
- D) Cover cropping
- E) Paired row cropping

Correct Answer: B) Alley cropping

5. Match the following irrigation methods with their suitable soil types:

- 1) Check-basin – a) Sandy loam soils
- 2) Furrow – b) Medium to heavy texture soils
- 3) Sub-surface – c) Uniform surface soils

- A) 1-a, 2-b, 3-c
- B) 1-c, 2-b, 3-a
- C) 1-b, 2-c, 3-a
- D) 1-c, 2-a, 3-b
- E) 1-b, 2-a, 3-c

Correct Answer: B) 1-c, 2-b, 3-a

6. In the context of irrigation efficiency, what is measured at the point of diversion?

- A) Farm irrigation efficiency
- B) Field irrigation efficiency
- C) Project irrigation efficiency
- D) Crop water use efficiency
- E) Consumptive use efficiency

Correct Answer: C) Project irrigation efficiency

7. Which of the following crops is an example of a trap crop used to attract soil-borne pests like Striga?

- A) Sorghum
- B) Groundnut
- C) Wheat
- D) Sugarcane
- E) Potato

Correct Answer: A) Sorghum

8. The broad bed and furrow system is widely practiced for which crop in clay soils?

- A) Wheat
- B) Groundnut
- C) Rice
- D) Sugarcane
- E) Cotton

Correct Answer: B) Groundnut

9. Which irrigation method involves the intermittent application of water to minimize deep percolation and runoff losses?

- A) Drip irrigation
- B) Surge irrigation
- C) Sprinkler irrigation
- D) Flood irrigation
- E) Cablegation

Correct Answer: B) Surge irrigation



10. What is the typical water saving percentage achieved by drip irrigation compared to surface irrigation methods?

- A) 10-20%
- B) 25-50%
- C) 50-70%
- D) 70-90%
- E) None of the above

Correct Answer: C) 50-70%

11. Which of the following is NOT a characteristic of waterlogging in agricultural fields?

- A) Reduced oxygen diffusion rate
- B) Increased denitrification losses
- C) Enhanced soil fertility
- D) Reduction of sulfates to sulfides
- E) Toxicity in submerged rice

Correct Answer: C) Enhanced soil fertility

12. The first irrigation applied to crops is referred to as:

- A) Drip watering
- B) Kor watering
- C) Surge watering
- D) Border watering
- E) Check watering

Correct Answer: B) Kor watering

13. Which irrigation method is best suited for undulating topography and sandy soils?

- A) Flood irrigation
- B) Check-basin irrigation

- C) Sprinkler irrigation
- D) Furrow irrigation
- E) Sub-surface irrigation

Correct Answer: C) Sprinkler irrigation

14. In the IW/CPE approach for irrigation scheduling, a lower ratio indicates:

- A) Higher water use efficiency
- B) Greater soil moisture stress
- C) Reduced crop yield
- D) Increased consumptive use
- E) Improved soil fertility

Correct Answer: B) Greater soil moisture stress

15. Which of the following crops is an example of a nurse crop that provides shade or support to another crop?

- A) Mustard with peas
- B) Groundnut
- C) Sugarcane
- D) Cotton
- E) Sweet potato

Correct Answer: A) Mustard with peas

16. What is the typical discharge rate of water per dripper in drip irrigation systems?

- A) 10-20 lit/hr
- B) 1-4 lit/hr
- C) 5-10 lit/hr
- D) 20-30 lit/hr
- E) None of the above

Correct Answer: B) 1-4 lit/hr

17. The term used for crops grown to preserve in pits for feeding livestock during lean months is:

- A) Soiling crops
- B) Silage crops
- C) Cover crops
- D) Cash crops
- E) Trap crops

Correct Answer: B) Silage crops

18. Which of the following is an example of a restorative crop that enriches soil fertility?

- A) Maize
- B) Legumes
- C) Sugarcane
- D) Cotton
- E) Rice

Correct Answer: B) Legumes

19. In sub-surface drainage, what is the primary purpose of tile drains?

- A) To increase soil salinity
- B) To lower the groundwater level below the root zone
- C) To enhance surface runoff
- D) To promote waterlogging
- E) To reduce soil aeration

Correct Answer: B) To lower the groundwater level below the root zone

20. Which of the following irrigation methods is most commonly used in India for wetland rice?

- A) Furrow irrigation
- B) Flood irrigation
- C) Sprinkler irrigation
- D) Drip irrigation
- E) Surge irrigation

Correct Answer: B) Flood irrigation

21. The practice of taking a second crop from the stubble of a previous crop is known as:

- A) Relay cropping
- B) Ratooning
- C) Skip cropping
- D) Paired row cropping
- E) Alley cropping

Correct Answer: B) Ratooning

22. Which of the following crops is NOT suitable for sprinkler irrigation?

- A) Wheat
- B) Groundnut
- C) Rice
- D) Pearl millet
- E) Vegetables

Correct Answer: C) Rice

23. The critical stage approach in irrigation scheduling focuses on:

- A) Soil moisture depletion levels
- B) Climatic conditions
- C) Stages of crop growth most sensitive to water shortage
- D) Transpiration ratio





E) Water use efficiency

Correct Answer: C) Stages of crop growth most sensitive to water shortage

24. Which of the following is a characteristic of border strip irrigation?

A) Suitable for sandy soils

B) Ideal for slopes of 0.5-1%

C) Used for widely spaced crops

D) Involves deep furrows

E) Requires high water pressure

Correct Answer: B) Ideal for slopes of 0.5-1%

25. What is the primary source of water loss in plants during consumptive use?

A) Metabolic activities

B) Evapo-transpiration

C) Deep percolation

D) Surface runoff

E) Capillary action

Correct Answer: B) Evapo-transpiration

26. Which crop is an example of a cash crop grown primarily for sale?

A) Berseem

B) Groundnut

C) Cotton

D) Sweet potato

E) Lobia

Correct Answer: C) Cotton

27. The discharge relationship for suppressed weirs is given by:



- A)  $Q = 0.0138 H^2$
- B)  $Q = 0.0184 LH^{3/2}$
- C)  $Q = CLH$
- D)  $Q = 0.0138 H^{3/2}$
- E) None of the above

Correct Answer: B)  $Q = 0.0184 LH^{3/2}$

28. Which of the following is a limitation of the check-basin irrigation method?

- A) It is unsuitable for close-growing crops
- B) It requires high water pressure
- C) It occupies a large area due to ridges
- D) It is ideal for sandy soils
- E) It promotes deep percolation

Correct Answer: C) It occupies a large area due to ridges

29. Crops grown along farm roads and fences, such as Arhar or Sisal, are known as:

- A) Cover crops
- B) Avenue crops
- C) Trap crops
- D) Nurse crops
- E) Silage crops

Correct Answer: B) Avenue crops

30. In the context of waterlogging, what is the primary cause of Akiuchi disease in rice?

- A) Excess nitrogen
- B) Toxicity of  $H_2S$
- C) Reduced oxygen diffusion
- D) Increased soil salinity

E) Denitrification

Correct Answer: B) Toxicity of H<sub>2</sub>S

31. Which irrigation method is most suitable for widely spaced crops like orchard trees?

A) Flood irrigation

B) Check-basin irrigation

C) Drip irrigation

D) Border strip irrigation

E) Surge irrigation

Correct Answer: C) Drip irrigation

32. The transpiration ratio approach in irrigation scheduling is also known as:

A) Soil moisture index approach

B) Absolute approach

C) Critical stage approach

D) Consumptive use approach

E) Field efficiency approach

Correct Answer: B) Absolute approach

33. Which of the following crops is an example of a cole crop?

A) Potato

B) Cabbage

C) Sugarcane

D) Cotton

E) Sorghum

Correct Answer: B) Cabbage

34. The 90° V-notch weir is primarily used for:

- A) Measuring large water flows
- B) Measuring small water flows
- C) Controlling deep percolation
- D) Enhancing soil moisture retention
- E) Reducing runoff losses

Correct Answer: B) Measuring small water flows

35. Which of the following is a characteristic of smother crops?

- A) They provide shade to other crops
- B) They have a large canopy and quick-growing ability
- C) They are grown for silage
- D) They are exhaustive to the soil
- E) They are grown for grazing

Correct Answer: B) They have a large canopy and quick-growing ability

36. In the soil moisture deficit approach, what is the typical depletion level for drought-resistant crops?

- A) 25%
- B) 50%
- C) 75%
- D) 10%
- E) 100%

Correct Answer: B) 50%

37. Which of the following is NOT a benefit of sprinkler irrigation?

- A) Suitable for undulating topography
- B) Water saving of 25-50%
- C) Protection against frost

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D) High suitability for heavy clay soils

E) Increased irrigated area

Correct Answer: D) High suitability for heavy clay soils

38. The practice of growing crops a few days before harvesting a standing mature crop is known as:

A) Ratooning

B) Paira cropping

C) Skip cropping

D) Alley cropping

E) Cover cropping

Correct Answer: B) Paira cropping

39. What is the typical slope range for furrow irrigation?

A) 0.5-1%

B) 0.2-0.5%

C) 1-3%

D) 3-7%

E) 7-10%

Correct Answer: B) 0.2-0.5%

40. Which of the following crops is an example of an energy crop used for ethanol production?

A) Groundnut

B) Sugarcane

C) Berseem

D) Lobia

E) Chickpea

Correct Answer: B) Sugarcane

41. The Parshall flume is a combination of:

- A) Weir and sprinkler
- B) Weir and submerged orifice
- C) Orifice and dripper
- D) Nozzle and furrow
- E) Pump and emitter

Correct Answer: B) Weir and submerged orifice

42. Which of the following is a demerit of waterlogging in agricultural fields?

- A) Increased oxygen diffusion rate
- B) Enhanced crop yield
- C) Increased denitrification losses
- D) Improved soil aeration
- E) Reduced soil toxicity

Correct Answer: C) Increased denitrification losses

43. Crops that compete with each other and are unsuitable for intercropping are known as:

- A) Complementary crops
- B) Competitive crops
- C) Supplementary crops
- D) Restorative crops
- E) Cover crops

Correct Answer: B) Competitive crops

44. The ring basin irrigation method is most suitable for:

- A) Close-growing crops
- B) Fruit crops

- C) Sandy soils
- D) Steep slopes
- E) Wetland rice

Correct Answer: B) Fruit crops

45. Which of the following is a benefit of drip irrigation in areas with water scarcity?

- A) High water loss due to evaporation
- B) Suitable for heavy clay soils
- C) Water saving of 50-70%
- D) Increased labour requirement
- E) Reduced crop yield

Correct Answer: C) Water saving of 50-70%

46. The practice of leaving one line unsown in a regular row series is known as:

- A) Paired row cropping
- B) Skip cropping
- C) Ratooning
- D) Alley cropping
- E) Border cropping

Correct Answer: B) Skip cropping

47. Which irrigation method is practiced in Kerala for coconut gardens?

- A) Sprinkler irrigation
- B) Sub-surface irrigation
- C) Flood irrigation
- D) Border strip irrigation
- E) Surge irrigation

Correct Answer: B) Sub-surface irrigation

48. Crops grown to market fresh, such as bhindi and spinach, are known as:

- A) Ware crops
- B) Truck crops
- C) Silage crops
- D) Soiling crops
- E) Cover crops

Correct Answer: B) Truck crops

49. In the context of irrigation, what is the typical sprinkler pressure range?

- A) 1-2 kg/cm<sup>2</sup>
- B) 2.5-4.5 kg/cm<sup>2</sup>
- C) 5-7 kg/cm<sup>2</sup>
- D) 7-10 kg/cm<sup>2</sup>
- E) 0.5-1 kg/cm<sup>2</sup>

Correct Answer: B) 2.5-4.5 kg/cm<sup>2</sup>

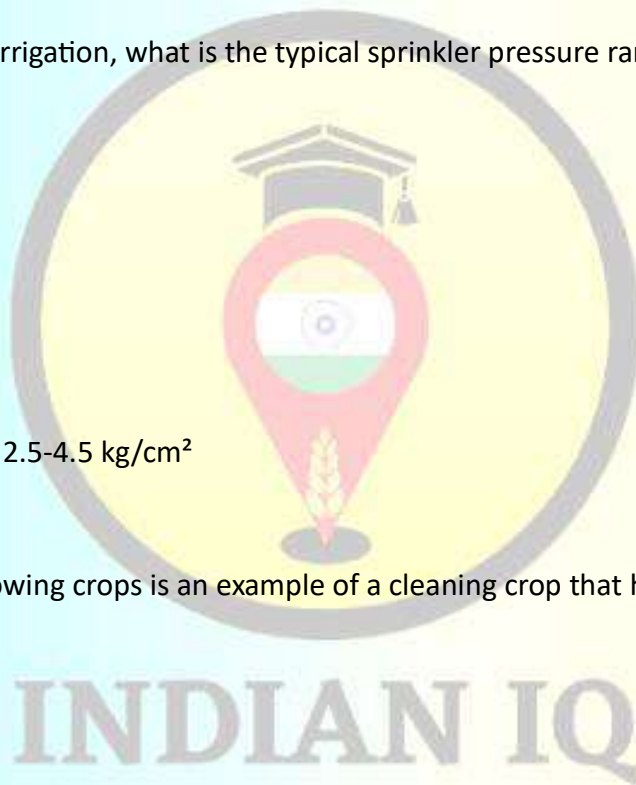
50. Which of the following crops is an example of a cleaning crop that helps maintain field hygiene?

- A) Rice
- B) Potato
- C) Cotton
- D) Jute
- E) Sugarcane

Correct Answer: B) Potato

51. The vertical drainage method is commonly practiced in:

- A) Wheat fields





- B) Coffee gardens
- C) Rice paddies
- D) Cotton fields
- E) Sugarcane plantations

Correct Answer: B) Coffee gardens

52. Which of the following is a characteristic of complementary crops in intercropping?

- A) They compete for resources
- B) They benefit each other
- C) They exhaust the soil
- D) They are grown for silage
- E) They are used as trap crops

Correct Answer: B) They benefit each other

53. The mole drainage system is most suitable for:

- A) Sandy soils
- B) Clay soils
- C) Loamy soils
- D) Rocky soils
- E) Saline soils

Correct Answer: B) Clay soils

54. Which of the following is NOT a characteristic of cover crops?

- A) They reduce soil erosion
- B) They conserve soil moisture
- C) They are grown for hard cash
- D) They protect soil from wind
- E) They include crops like lobia

Correct Answer: C) They are grown for hard cash

55. The discharge rate for sprinkler irrigation systems is typically:

- A) Less than 500 lit/hr
- B) More than 1000 lit/hr
- C) 500-1000 lit/hr
- D) 100-500 lit/hr
- E) None of the above

Correct Answer: B) More than 1000 lit/hr

56. Which of the following crops is an example of a fouling crop that allows intensive weed infestation?

- A) Potato
- B) Direct-seeded upland rice
- C) Wheat
- D) Groundnut
- E) Berseem

Correct Answer: B) Direct-seeded upland rice

57. The practice of sowing mustard with berseem to increase yield in the first cutting is known as:

- A) Augmenting cropping
- B) Complementary cropping
- C) Nurse cropping
- D) Trap cropping
- E) Cover cropping

Correct Answer: A) Augmenting cropping

58. In the context of irrigation, what does the term "consumptive use" include?

- A) Only evapo-transpiration
- B) Evapo-transpiration and metabolic water use
- C) Only surface runoff
- D) Deep percolation and runoff
- E) Soil moisture retention

Correct Answer: B) Evapo-transpiration and metabolic water use

59. Which of the following is a suitable slope for the border strip irrigation method when growing pasture crops?

- A) Up to 3%
- B) Up to 7%
- C) Up to 1%
- D) Up to 10%
- E) Up to 0.5%

Correct Answer: B) Up to 7%

60. Crops grown for immediate or future feeding to livestock, such as berseem, are known as:

- A) Silage crops
- B) Soiling crops
- C) Truck crops
- D) Ware crops
- E) Energy crops

Correct Answer: B) Soiling crops

