UNIT – 1
INTRODUCTION
2 MARK QUESTIONS

1) Define irrigation?

2) What is the necessity of irrigation?

3) What is irrigation engineering?

4) What are the advantages of irrigation?

5) What are the disadvantages of irrigation?

6) What is the purpose of irrigation?

7) Define crop ratio?

8) What is meant by overlap allowance?

9) What are the types of irrigation?

10) What are the techniques of water distribution in the farms?

11) What is arid region?

12) Define wilting coefficient?

13) What is semi-arid region?

14) What is crop period?

15) What is base period?

16) What is rotation period?

17) Define duty?

18) Define delta of a crop?

19) What are the factors on which duty depends?

20) Define irrigation efficiency?

21) What are the methods for improving duty?

22) What are kharif crops?

23) What are rabi crops?

24) What is called effective rainfall?

25) Define consumptive use of Water?

26) What are the Factors Affecting consumptive uses of water?

27) What is the gross command area and culturable command area?

28) What are the methods to measure the consumptive use of water?

29) Write some major irrigation projects in India?

30) Define saturation capacity and field capacity?

16 MARK QUESTIONS

1) Define Irrigation? What are the merits and demerits of irrigation?

2) Explain the Necessity and scope of Irrigation in India and List out some of the major water resources in India?

3) Define Duty? What are the factors affecting duty? How to improve duty?

4) Briefly explain about irrigation efficiencies?

5) Define consumptive use of water? Explain the Factors affecting consumptive use of Water?

6) Explain the methods to measure the consumptive use of water?

7) With a neat sketch, explain the modes of applying water to Crops?

8) Explain the different types of flooding methods with a neat sketch?

9) Write a short note and factors affecting Duty, Delta and Base period?

10) Briefly explain about planning and development of irrigation project?

11) A water course has a culturable commanded area of 1200 hectares. The intensity of irrigation for crop A is 40% and for B is 35%, both the crops being Rabi crops. Crop A has a Kor period of 20 days and crop B has Kor period of 15 days. Calculate the discharge of the water if the depth for crop A is 10 cm and for B it is 16 cm.

12) Define the following:

G.C.A., C.C.A., Kor depth, kor period, outlet factor, capacity factor, nominal duty, open discharge, rabi and kharif crops.

UNIT – 2
IRRIGATION METHOD
2 MARK QUESTIONS

1) List some types of irrigation?
2) What do you mean by flow irrigation?
3) Define lift irrigation.
4) Define perennial irrigation
5) Define inundation irrigation
6) Define direct irrigation.
7) What do you meant by storage irrigation?
8) Define combined irrigation.
9) What are the types of canals?
10) What are the alignment canals?
11) Define tank irrigation?
12) What are the distribution systems of canal irrigation?
13) Define tank banks?
14) What is called alluvial soil?
15) What is called non-alluvial soil?
16) What is called watershed canal?
17) What is the other name for drip irrigation?
18) What is called sprinkler irrigation system?
19) What is called borders?
20) What do you mean by uncontrolled and controlled flooding?
21) What are the basic requirements for adaptation of any irrigation method?
22) What do you mean by free flooding?
23) Where contour laterals are applicable?
24) Write about the advantages of furrow irrigation.
25) Under which favourable conditions the sub-surface irrigation is practiced?
26) Where sprinkler irrigation is more useful?
27) Write about the advantages of sprinkler irrigation.
28) What are the types of sprinkler system?
29) Write about the limitations of sprinkler irrigation.
30) Write about the advantages of drip irrigation
31) Write about the disadvantages of drip irrigation

16 MARK QUESTIONS

1) Explain Canal Irrigation? What are the classifications of canal?

2) Why should lining be provided in canals? What are the merits and demerits of canal lining?

3) Write the different types of canal lining? Explain them?

4) Write a short note on Lift irrigation? Explain the pumps used for Lift irrigation?

5) Write a short note on Tank irrigation and explain its type?

6) Explain the different types of flooding methods?

7) Explain in detail about sprinkler method of irrigation and how far it is suitable in Indian conditions.

8) Write a note on drip irrigation? Explain the components of drip irrigation system?

9) Write about the merits and demerits of Canal irrigation?

10) Write about the merits and demerits of tank irrigation?

11) Write about the merits and demerits of lift Irrigation?

12) Write about the advantages and disadvantages of drip irrigation system?

13) Write about the advantages and disadvantages of Sprinkler System?

14) Define surface irrigation. Why it is widely practiced method of irrigation? What are the advantages and disadvantages of the method?

15) Compare drip irrigation and Sprinkler irrigation?

UNIT-III
DIVERSION AND IMPOUNDING STRUCTURES
2 MARK QUESTIONS

1) Define diversion headwork.
2) Write about the purposes of diversion headwork.
3) Define weir.
4) Define barrage.
5) What are the component parts of diversion headwork?
6) What is meant by canal escape?
7) Define dam.
8) Define stream line.
9) What are the types of dam?
10) Define gravity dam.
11) What are the forces acting on a gravity dam? (or) arch dam?
12) What is meant by arch dam?
13) What are the various types of earth dam?
14) What are the types of failure that occur during construction of earth dam?
15) Define tank.
16) Define tank sluice.
17) Define Percolation pond?
18) How will you select a site for a tank sluice?
19) Define spillway.
20) State diff types of spillways.
21) Limitations of blighs creep theory.
22) Write about the advantages of earth dam?
23) Write about the disadvantages of earth dam?
24) Write about the functions of scouring sluices.
25) What are the modes of failure in gravity dams?
26) Under what conditions gravity dam can be adopted?

16 MARK QUESTIONS

1) Write in detail about the component parts of diversion works.

2) Write about the types of weirs and Explain various components of weir?

3) Explain the causes of Failure in weir on permeable foundation and how to overcome that?

4) Write in detail about the tank surplus works.

5) What are the causes of failure of Earth dam, Gravity dam and Earth dam and its remedies?

6) Write about the factors affecting the selection of type of a dam.

7) Write about the criteria for safe design of earth dam.

8) Describe the forces acting on a gravity dam.

9) Describe the forces acting on a arch dam?

10) What are the forces acting on a earth dam?

11) What are the types of dams and what are the comparative merits and demerits of various types of dams?

12) Explain various types of spillways and types of gates used in spillways?

13) Explain in detail about Percolation pond and factors to be considered for a percolation pond?

UNIT – 4

CANAL IRRIGATION

2 MARK QUESTIONS

1. Classify the rivers.
2. What are the causes of meandering?
3. What are the objectives of river training works?
4. Classify the river training works.
5. Define groyne.
6. Classify the groynes.
7. Give an equation for silt factor.
8. Define critical velocity.
9. What is meant by regime channel?
10. What is meant by contour canal?
11. What is a ridge canal?
12. What are the classifications of canal alignment?
13. What is the need of canal drop?
14. What is the need of cross drainage work?
15. Differentiate aqueduct and canal siphon?
16. What is super passage?
17. What is level crossing?
18. What is canal head work?
19. What is canal regulator?
20. What is river training works?
21. What is meandering of rivers?

16 MARK QUESTIONS

1. How are canals generally classified? Describe them briefly?
2. Explain the various considerations for alignment of a canal.
3. Why are canal falls necessary? Describe with sketch briefly the various types of canal falls.
4. What are the types of cross drainage works? Describe them briefly with sketches.
5. What is the necessity of river training works? Describe different types of river training works?
6. What is meant by guide banks? What are their functions and effects?
7. Explain the methods to improve canal irrigation system?
8. Explain briefly about the hydraulic design of cross drainage works?
9. Explain briefly about the hydraulic design of canal drops?
10. State the factors to be considered for the choice of a suitable type of cross drainage work?

UNIT – 5

IRRIGATION WATER MANAGEMENT

2 MARK QUESTIONS

1. What is meant by Productivity?
2. Define equity.
3. Write about the conjunctive use of water.
4. What is meant by short – term stability?
5. Define long – term stability.
6. Write about the main components of soil reclamation.
7. Why a proper plan for operation & maintenance of irrigation system is necessary?
8. What is meant by water logging?
9. Write the methods used for controlling water logging?
10. Define 0n-farm water management.
11. What do you meant by water user association (WUA)?
12. What are the problems of irrigation management without participatory management?
13. What are the needs of optimization of irrigation water management?
14. How to minimize irrigation loss?
15. What is participatory irrigation system?
16. What are the factors to be considered during the selection of particular type of lining?
17. What are the main objectives of canal lining?
18. How can the water losses are controlled?
19. State the effects of water logging?
20. What are the benefits of Water use association?

16 MARK QUESTIONS

1. Discuss the inadequacies of present – day canal irrigation management in India.

2. *Describe the common criteria for judging the performance of an irrigation system.*

3. Describe the evaluation of performance of canal irrigation systems.

4. What are the methods adopted for improving canal irrigation management? Explain in detail.

5. Briefly explain about on farm development works?

6. What are the various ways of 'minimizing irrigation water losses'?

7. What kinds of participation are necessary for irrigation management activities?

8. What is the need for WUA?

9. What is the need for optimization of water use?

10. What is the need of water user's association?