

SES
SIOT, KHARGHAR
CIVIL DEPARTMENT
ASSIGNMENT NO- 1

SUBJECT- IRRIGATION ENGINEERING

CLASS-T. Y.

01. Classify irrigation and give merits and demerits of irrigation.
02. Define run-off. Enlist factors affecting run-off.
03. Define – a) Rainfall b) Yield c) Rain gauge.
04. List the methods of computing average annual rainfall. Explain Theissen's Polygon method.
05. Explain different types of Rain gauges. Enlist methods of estimating run-off.
06. Explain Hydrological cycle with neat sketch and mention significance of it to irrigation.
07. Define MFD. Estimate MFD for a catchment of proposed reservoir of 300sq.km. in Western Maharashtra using Inglis formula.

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ASSIGNMENT NO- 2

SUBJECT- IRRIGATION ENGINEERING

CLASS-T. Y.

01. What is a silting of reservoirs? State the factor affecting silting of reservoirs.
02. Write short note on assessment of irrigation water.
03. Define duty, delta, crop period & base period. Derive relation between D, Δ & B .
04. Enlist various factors affecting duty & explain any two of them.
05. Enlist criteria for selection of site of a dam. Also mention factors affecting selection of site particular type of dam.
06. Mention various investigation surveys required for reservoirs planning and explain engineering survey in detail.
07. State the period of cultivation & explains each of Kharif & Rabi crops.
08. Draw the area capacity curve & state its significance.

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ASSIGNMENT NO- 3

SUBJECT- IRRIGATION ENGINEERING

CLASS-T. Y.

01. What is spillway? State the purpose of emergency spillway. Draw a neat labeled sketch of ogee spillway.
02. Explain the causes of failures of earthen dam in detail.
03. What do you understand theoretical & practical profile of gravity dam?
04. Define “gallery” in gravity dam. State the function of gallery.
05. What is seepage? What are the various methods of control seepage through embankment & foundation of earth dam?
06. Differentiate between theoretical & practical profile of gravity dam.
07. Enlist various stages in construction of gravity dam & mention various equipments used in construction of gravity dam.
08. Explain with neat sketch working of VISHWESHWARAYA GATE.
09. Enlist various seepage control measures & explain any one with neat sketch.
10. Enlist the eight component of earthen dam & write their function.

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ASSIGNMENT NO- 4

SUBJECT- IRRIGATION ENGINEERING

CLASS-T. Y.

01. What is the Bandhara irrigation? What are its advantages.
02. State factor affecting selection of site for a percolation tank.
03. Discuss sprinkler irrigation system with respect to merits, demerits, sketch and troubleshooting of it.
04. Explain with neat sketches K.T. WIRE.
05. State advantage & disadvantages of Bandhara irrigation.
06. state the factors affecting selection of site for percolation tank.
07. What is lift irrigation? List the components.
08. Draw layout at Bandhara irrigation with components parts & write function of component parts.
09. State any four factors required to be considered for selection of site of percolation tank.

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ASSIGNMENT NO- 5

SUBJECT- IRRIGATION ENGINEERING

CLASS-T. Y.

01. Differentiate between weir and barrage.
02. Draw labelled layout of diversion head work and mention function of each part of it.
03. State the component of Weirs. And state their function
04. State functions of silt ejector and draw its sketch.
05. What is function of pick-up weir? Under what situations it is constructed?

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ASSIGNMENT NO- 6

SUBJECT- IRRIGATION ENGINEERING

CLASS-T. Y.

1. State under what circumstances, each of the following is constructed:
 - a) Aqueduct
 - b) Syphon aqueduct
 - c) Super passage
 - d) Level crossing
 - e) Canal syphon
 - f) Inlet & Outlet
2. Explain the following:
 - a) Cross regulator
 - c) Canal falls
 - b) Escapes
 - d) Canal outlets
3. When is an inlet & outlet provided?
4. State the factors governing the choices of suitable type of cross drainage work.
5. Draw a sketches of an aqueduct and the super passage and name the various parts.
6. Differentiate between Syphon aqueduct and Syphon super passages.
7. State the location and function of
 - a) Cross regulator
 - b) Canal escapes
 - c) Canal fall.
8. State the requirements of good outlet.