INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)
Dundigal, Hyderabad -500 043

CIVIL ENGINEERING

ASSIGNMENT QUESTIONS

Course Name	:	**WATER RESOURCES ENGINEERING-II**
Course Code	:	**A70133-R15**
Class	:	**IV B.TECH I SEM**
Branch	:	**CIVIL ENGINEERING**
Year	:	**2018 – 2019**
Course Coordinator	:	**Ms. B.Navya, Assistant Professor, Department of Civil Engineering.**
Course Faculty	:	**Ms. B. Navya, Mr. R. Suresh Kumar, Assistant Professor, Department of Civil Engineering.**

COURSE OBJECTIVE:

This course address the concept of dam, earth dam, gravity dam, canals structures, diversion head works, spillways and drainages works, constitutes to be the most common type, Since it is generally built of locally available in their natural state with a minimum of processing .The responsibility of maintenance of the distributing channel and the whole canal networks lies with government, while that of the field channel lies with the farmers. Know about canal regulation works. Ground water, reservoir water and rain water storing.

S. No	QUESTION	Blooms Taxonomy Level	Course Outcome
	UNIT-I **STORAGE WORKS**		
1	Give the classification of reservoirs.	Remember	1
2	Discuss the steps involved in selecting a site for reservoir construction.	Understand	1
3	Write brief notes on reservoir yield.	Remember	1
4	Explain various levels of a reservoir with neat sketch.	Understand	1
5	\Write short notes on mass curve and demand curve	Understand	1
6	Explain how reservoir capacity can be determined using a mass curve.	Remember	1
7	What is meant by reservoir sedimentation	Remember	1
8	Give the description of life of reservoir	Remember	2
9	What is the use of constructing dam.	Understand	2
10	Give the classification of dams.	Remember	2
	UNIT-II **GRAVITY DAMS**		
1	Explain the forces acting on a gravity dam.	Understand	2
2	Draw an elementary profile of a gravity dam.	Remember	2
3	Draw the practical profile of a gravity dam.	Understand	2
4	Write the effects of earthquake forces on a gravity dam.	Understand	2
5	Explain the failure of a gravity dam due to overturning.	Understand	2

S. No	QUESTION	Blooms Taxonomy Level	Course Outcome
6	Explain the failure of a gravity dam due to sliding.	Understand	2
7	Explain the failure of a gravity dam due to crushing.	Remember	2
8	Derive the limiting height of a gravity dam.	Understand	2
9	What are the modifications given to an elementary profile to get practical profile?	Understand	3
10	Explain the effect of wave pressure on gravity dam.	Remember	3
	UNIT-III **EARTH DAMS & SPILLWAYS**		
1	What are the types of Earth Dams?	Understand	3
2	Explain various causes of failure of Earth Dams	Understand	3
3	Write the criteria for safe design of earth dams.	Remember	3
4	Explain seepage failures of earth dams	Understand	4
5	Give brief description of phreatic line of an earth dam	Understand	4
6	Give the classification of spillways based on purpose, control, and pertinent feature.	Remember	4
7	Explain ogee-shaped spillway.	Understand	4
8	Explain siphon spillway.	Understand	4
9	Explain free over fall spillway with neat sketch.	Understand	4
10	Explain Energy Dissipaters and Stilling Basins	Understand	4
	UNIT-IV **DIVERSION HEADWORKS**		
1	Give the classification of diversion head works	Understand	5
2	Draw a neat sketch of layout of a diversion headwork.	Remember	5
3	Mention various components of a diversion headwork.	Understand	5
4	Explain the functions of canal head regulator.	Remember	5
5	Give the necessity of providing silt excluder.	Understand	5
6	Explain Bligh's creep theory & Khosla's theory	Understand	6
7	Explain the design of a weir on permeable foundations for surface flow	Understand	6
8	Explain the criteria adopted in designing various components of weir built on permeable foundations using khosla's theory.	Understand	6
9	Explain the criteria adopted in designing various components of weir built on permeable foundations using Bligh's creep theory.	Understand	6
10	State the fundamental difference between Khosla's theory and Bligh's creep theory for seepage of flow below weir.	Understand	6
	UNIT-V **CROSS DRAINAGE WORKS & CANAL FALLS**		
1	What is meant by the terms flexibility, setting and sensitivity as applied to modules?	Remember	7
2	Explain the necessity of Cross Drainage Structure and Classify them	Understand	7
3	Explain the design procedures of an aqueduct structure and Syphon aqeduct	Understand	7
4	Describe the procedure for the design of Super passage	Understand	8
5	What are the points you consider while selection cross drainage works	Understand	8

S. No	QUESTION	Blooms Taxonomy Level	Course Outcome
6	Enumerate different types of outlets which are in common use on canal projects.	Remember	8
7	What is meant by the terms flexibility, setting and sensitivity as applied to modules?	Remember	8
8	Define the terms proportionality and sensitivity.	Understand	9
9	What are the functions of head regulator & Cross regulator	Remember	9
10	Distinguish between a modular, a non modular and a semi modular outlet.	Understand	9

Prepared by: Ms.B.Navya, Assistant Professor.

HOD, CIVIL ENGINEERING.