Q.P. Code: 16CE128 **R16**

Reg. No: | | | | | | | | | | |

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech III Year II Semester Regular& Supplementary Examinations October-2020

WATER RESOURCES ENGINEERING-II

(Civil Engineering)

Time: 3 hours Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1	**a**	What do you understand by a 'Fall' in a canal? Explain the classification of falls.	**8M**
	b	What is a 'Head regulator'? What are the functions of a head regulator?	**4M**
		OR	
2	**a**	Explain different types of Cross-drainage works.	**8M**
	b	Write a note on the selection of suitable type of Cross-drainage work.	**4M**
		UNIT-II	
3	**a**	Explain with a neat sketch the method of measuring the velocity at a point in a stream using a current meter.	**8M**
	b	What are the data to be obtained from field measurements to determine the discharge by slope-area method?	**4M**
		OR	
4	**a**	Sodium dichromate solution with a concentration of 25mg/c.c. is introduced into a stream at a rate of 1.5 litres/minute. The samples collected at a downstream section sufficiently far away indicated an equilibrium concentration of 0.001ppm. Determine the discharge in the stream. Assume no initial concentration of Sodium dichromate in the stream.	**6M**
	b	With a neat sketch, explain the principle of working of an 'Automatic stage recorder'.	**6M**
		UNIT-III	
5	**a**	Explain the classification of rivers.	**6M**
	b	What is 'Meandering'? What are the causes of meandering?	**6M**
		OR	
6	**a**	Draw a neat sketch of a suitable cross section of a guide bank used in river training works.	**6M**
	b	What is a 'Pitched island'? Explain.	**6M**
		UNIT-IV	
7	**a**	Explain with a neat sketch, the various zones of storage in a reservoir.	**8M**
	b	What is a 'Mass inflow curve'? How is it prepared?	**4M**
		OR	
8	**a**	Discuss various methods of reservoir sediment control.	**8M**
	b	What is 'Flood routing'? Why is it carried out?	**4M**
		UNIT-V	
9	**a**	Explain the classification of dams according to use.	**6M**
	b	Discuss the factors on which selection of site for a dam depends.	**6M**
		OR	
10	**a**	Explain various forces that act on a gravity dam.	**8M**
	b	What do you understand by the 'elementary profile' and 'practical profile' of a gravity dam?	**4M**

*** END ***