R18

Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech II Year II Semester Regular Examinations October-2020
MATERIALS, TESTING & EVALUATION
(Civil Engineering)

Time: 3 hours

Max. Marks: 60

PART-A
(Answer all the Questions **5 x 2 = 10** Marks)

1	**a**	What ate the classification of rocks? And define igneous rock.	**2M**
	b	Define Cement and list the properties of cement	**2M**
	c	Define Bitumen and Asphalt	**2M**
	d	What is the difference between Light weight concrete and High performance concrete.	**2M**
	e	Give the principle and characteristics of Elasticity.	**2M**

PART-B
(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	**a**	List the classifications of rocks and explain the classification based on geological formation.	**5M**
	b	Describe the characteristics of good building stones.	**5M**

OR

3	**a**	Mention the factors to be considered while deciding a quarry site.	**5M**
	b	Explain methods of quarrying.	**5M**

UNIT-II

4	**a**	What are the properties of cement?	**5M**
	b	Explain in detail about the procedure to find consistency of cement.	**5M**

OR

5	**a**	Explain soundness and fineness test on cement.	**5M**
	b	What is the test procedure for specific gravity of cement?	**5M**

UNIT-III

6	**a**	What do you mean by soundness of aggregate? Explain	**5M**
	b	What is alkali-aggregate reaction? And how will it affect the concrete properties.	**5M**

OR

7		What are the mechanical properties of coarse aggregate?	**10M**

UNIT-IV

8		Explain in detail the slump test with the help of a neat sketch. Discuss its merits and limitations.	**10M**

OR

9	**a**	What is the light weight aggregate concrete?	**5M**
	b	What is light weight concrete? How is it produced?	**5M**

UNIT-V

10		What is Elasticity and explain characteristics of Elasticity?	**10M**

OR

11		Explain plastic deformation of metals and Tensile test.	**10M**

END