

2022
(DECEMBER)

CONCRETE TECHNOLOGY

Full Marks : 100

Pass Marks : 30

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

“Illustrate answers with real sketches whenever required”

1	a)	Explain about the strength development after addition of water to cement?	10
	b)	i) Explain the heat of hydration. ii) What are Bogue's compounds and when these are formed?	5+5=10
2	a)	Describe about the different types of cement	10
	b)	What are the laboratory tests available to know the characteristics of cement?	10
3	a)	Describe about the different characteristics of aggregates.	10
	b)	What is the major constituent of concrete and how much percentage of it contains in the concrete? Describe about classifications of aggregates.	2+8 =10
4	a)	What is mix proportioning of concrete? What are the requirements of concrete mix design?	4+6= 10
	b)	Define workability of concrete? Describe about the factors effecting workability.	2+8 = 10
5	a)	Give two examples of admixtures. Why admixture is used in concrete?	2+8 = 10
	b)	How does plasticizer work in concrete?	10
6	a)	What are the different types of special concrete? Discuss about their generation processes.	4+6 =10
	b)	Discuss about the properties of different special concrete and also mention their applications.	10