Code No: RT22015   **R13**   SET - 1

II B. Tech II Semester Supplementary Examinations, April-2018
CONCRETE TECHNNOLOGY
(Civil Engineering)

Time: 3 hours   Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **THREE** Questions from **Part-B**

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PART –A

1.	a)	Define specific gravity.	3M
	b)	What is placing of concrete?	4M
	c)	Define maturity concept.	3M
	d)	Write about nature of creep.	4M
	e)	What are the statical methods of mix design	4M
	f)	What is self healing concrete?	4M

PART -B

2.	a)	Write about plasticizers and super plasticizers.	8M
	b)	What is the affect of size of aggregate on concrete?	8M
3.	a)	Write in detail about segregation and bleeding of concrete.	10M
	b)	What is the effect of time and temperature on workability?	6M
4.	a)	What are the factors affecting the strength of concrete?	8M
	b)	Write about Abram's law and Gel space ratio.	8M
5.		Write in detail about elasticity, creep and shrinkage of concrete.	16M
6.		Design a concrete mix for characteristic strength of 25MPa at 28 days with a standard deviation of 4MPa.The specific gravity of FA and CA are 2.64 and 2.74 respectively. A slump of 40mm is necessary. The specific gravity of cement is 3.15.Assuming the necessary data design the mix as per IS code method	16M
7.		Write about different special concretes. How they are different from conventional concrete? Explain.	16M