Seat No: _____ Enrollment No: _____

PARUL UNIVERSITY

FACULTY OF ENGINEERING & TECHNOLOGY

Diploma Engineering, Mid semester Examination

Semester: 3RD **Date: (dd/mm/yyyy)**

Subject Code: 03605003 **Time: (1hr: 30min)**

Subject Name: Concrete Technology **Total Marks: 40**

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic.

Q.1	**Answer any six out of Ten. (2 Marks Each)**	**(12)**
	1. Write Full form of C3S, C2S, C3A and C4AF.	
	2. Write down precautions to be taken for storage of cement bags at site.	
	3. Explain field test of cement.	
	4. State Physical properties of cement	
	5. Indicate size of cubes for compressive strength of cement and concrete.	
	6. List any four types of cement along with relevant I.S code.	
	7. Write IS requirement of IST (Initial Setting Time) & FST (Final Setting Time) for OPC,	
	9. Define concrete mix design and List different methods of concrete mix design.	
	10. Write objectives of mix design.	
	11. Enlist different non-destructive test for concrete	
Q.2	A) Explain types of cement and their uses.	**(03)**
	OR	
	A) Explain Bogue's compound in cement.	**(03)**
	B) Explain soundness test of cement.	**(03)**
	OR	
	B)Explain role of fine and coarse aggregates in concrete.	**(03)**
	C) Explain crushing value test of aggregate.	**(04)**
	OR	
	C) Differentiate between gap grading aggregate and normal grading aggregate.	**(04)**
	D) Explain Use of Sea Water for Mixing Concrete.	**(04)**
Q.3	A) Define concrete mix design and Write down objectives of concrete mix design	**(03)**
	OR	
	A) Difference between nominal mix and design mix.	**(03)**
	B) Enlist different non-destructive test for concrete and explain anyone.	**(03)**
	OR	
	B) Explain rebound hammer test with figure.	**(03)**
	C) Enlist name of various method of concrete mix design and explain IS Code Method.	**(04)**
	OR	
	C) Differentiate between gap grading aggregate and normal grading aggregate	**(04)**
	D) Explain the desirable qualities of water to be used for making concrete.	**(04)**

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