Question Paper Code: 97110

M.E. DEGREE EXAMINATION, JAN 2020

Elective

	Structi	ural Engineering	
	19PSE510- PRECAST AND	PREFABRICATED STRUCTURES	
	(Re	gulation 2019)	
Durat	ion: 1:15 hours	Maximum: 30 l	Marks
	PART A	$-(6 \times 1 = 6 \text{ Marks})$	
	(Answer any six	of the following questions)	
1.	At which stage, Precast elements of transporting to the yard for further (a) Testing of finished component	transport by rail.	CO1- R
	(c) Transportation of Elements	(d) Laying of mould in position	l
2.	Prefabricated buildings made of w	which construction materials?	CO1- R
	(a) Steel	(b) Aluminum	
	(c) Asbestos	(d) All of the above	
3.	Which of the following is not a characteristics of Precast walls?		
	(a) Thermal Resistance	(b) Weather Resistance	
	(c) Moisture Protection	(d) Durability	
4.	Among these walls, which of these transfer only self-weight, provided to create barrier that can be visual, thermal & acoustic?		
	(a) Long wall (b) Short wall	(c) Partition wall (d) All of the abo	ove
5.	The structural system of purlins m	•	CO3- R
	a) freely supported beam	(b) the cantilever girder	

(d) All of the above

(c) the continuous girder

6.	Which code of practice is used for design & construction of Floors & Roofs using precast concrete / prestressed concrete ribbed or cored slab units.			
	(a) IS 10297:198 (b) IS 3201:1988 (c) IS 3935:1966 (d) IS 6332:1984			
7.	Load bearing walls & Beams are placed in both ways longitudinally & CO4- R Transversely is			
	(a) Long wall system (b) Cross wall system			
	(c) Ring system (d) None of the above			
8.	Requirement of curtain wall is to CO4- R			
	(a) Control Exterior Precipitation (b) Control Heat flow			
	(c) Control Air flow (d) All of the above			
9.	Which of the below is the type of folded plate roof?			
	(a) Prismatic (b) Cylindrical (c) Corrugated shell (d) Ellipsoidal			
10.	In which of the following connections, Assembly speed is fast and Weather independent assembly possible with a good design?			
	(a) Wet Connection (b) Bolted Connection			
	(c) Post Tensioning Connection (d) Welded Connection			
	PART - B (3 x 8= 24 Marks)			
	(Answer any three of the following questions)			
11.	Explain in detail about the concept of Modular coordination and CO1- U state its significance in prefabricated structures. (8			
12.	Explain in detail about column to column connection with a CO2-U (8) clear sketch.			
13.	Explain in detail the manufacture of roof slabs. Also explain the CO3- U precautions taken during the manufacturing process.			
14.	Explain in detail about Joint Sealants with in Types. Also CO4-U (8) mention its Applications.			
15.	Describe in detail about the components of single-storey CO5-U industrial shed with crane gantry systems.			