Major Exam CEL771 **2006**

5 marks for each question. Total 40 marks.

1. Draw the stress-strain curve of M35 and M80 concrete with normal and light weight aggregate.
2. What are the facters those primary factors that affect the strength of concrete? What is the difference between normal strength concrete and high strength concrete in this regards and why? Explain with graph using w/p vrs strength curves.
3. What is the role of C3A on strength of concrete? Is it a advice able method to achieve high strength?
4. What is the strength of concrete in the Pacific First center in Seatle? What type of aggregate was used in this construction?
5. For a M60 concrete. There are 6 possible cases for tensile strength. Flexure, Direct tension and splitting in wet and dry condition each. Arrange these value in ascending order.
6. In a compressive load experiment, load is maintained in 30% and 90% level respectively for long timc. What is the affect? Explain with the help of graphs.
7. Thc workability of a concrete mix has to increase. Explain the possible methods of achieving it.
8. Permeability/porosity vrs strength/durability. Make proper pairs and explain.