

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST-1 EXAMINATION- October -2019

B.Tech VII Semester

COURSE CODE: 10B13CE744

MAX. MARKS: 25

COURSE NAME: Advanced Concrete Technology

COURSE CREDITS: 03

MAX. TIME: 1Hour 30 Minutes

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*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. All questions carry equal marks.*

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1. What are the important factors which makes the mixture proportioning of self compacting concrete different from ordinary concrete. Explain in detail all the factors.
2. Experimentally how will assess the passing ability and segregation resistance of self compacting concrete. Please give the limits specified by EFNARC 2002 for the different tests.
3. Explain the different models prescribed for particle packing in powders. Explain the problems associated with particle packing in advanced mixture design method.
4. In the hydration of Calcium aluminate cements (CAC) what happens when the conversion of metastable to stable hydrate occurs. Explain in detail.
5. Explain in detail the process for optimization of ingredients of concrete on the basis of particle packing concept.