

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- Sep- 2017

B.Tech VII Semester

COURSE CODE: 10B13CE744

MAX. MARKS: 15

COURSE NAME: Advanced Concrete Technology

COURSE CREDITS: 3

MAX. TIME: One Hr

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

Q1. Laboratory experiments conducted at Pune on a particular mix showed strength of 32.5 MPa for a fully matured concrete. Find whether formwork can be removed for an identical concrete placed at Srinagar at the age of 15 days when the average temperature is 5°C if the concrete is likely to be subjected to a stripping stress of 25MPa. (3)

Q2. Explain in detail the Hydration Reaction of cement. How different Bogue's compound react during hydration process. (4)

Q3. Write short notes on any four (8)

- a) Conversion of Ettringite to monosulfoaluminate
- b) Crevice Corrosion and Pitting
- c) Cooling rate of clinker
- d) Corrosion Mechanism in Concrete
- e) Carbonation of concrete

CE-8, BT