JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- May 2017

M. Tech. 2nd Semester

COURSE CODE: 10M11CE212   MAX. MARKS: 35

COURSE NAME: Heavy/Civil Construction Equipments, Methods, and Management

COURSE CREDITS: 03   MAX. TIME: 2 Hrs

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

1. Determine the maximum size of stone may be fed to a smooth roll crusher whose rolls are 1 m in dia. when roll setting is 25 mm and angle nip is 16^0. What size of roles should be selected for secondary crushing when end product is 4 cm and the feed from the primary unit is 7.5 and Θ = 16^0.   [5]

2. Write the short notes on the following: (1) process of blasting (2) pumping and dewatering   [5]

3. Calculate the power requirement in installation of belt conveyor based on the following: to move horizontally; to lift the load vertically; energy required to operate the pulley; energy required to move the empty belt; energy required to turn the pulley; energy required to operate the tripper.   [10]

4. Classify the various excavating and hauling equipment along with their workings.   [6]

5. Explain the various hosting equipment in brief.   [4]

6. Determine the output of a bulldozer from the following operating conditions: Material = sand; Swell = 20%; Haul distance = 40 m; Rated mold board capacity = 3 cubic meter (loose volume); Operational factor 45 minutes/hour.   [5]