JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- Feb 2018

M.Tech IVth Semester

COURSE CODE: 10M1WCE133   MAX. MARKS:15

COURSE NAME: Bridge Engineering

COURSE CREDITS: 4   MAX. TIME: One Hr

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

Q1. Which factors you will consider during appropriate site selection for a bridge?   **[3 Marks]**

Q2. Explain with neat sketches (a) components of Bridge (b) Classification of Bridge based on superstructure.   **[3 Marks]**

Q3. What are the four standard types of live load in the IRC code? Explain briefly   **[3 Marks]**

Q4. Explain impact factor effect for IRC class A or B loading.   **[3 Marks]**

Q5. The catchment area is of 300 hectares. The surface cover in the catchment can be classified as given below:

Type of cover	Coefficient of Run off	Percentage
Roofs	0.9	15
Pavements and yards	0.8	15
Lawns and Gardens	0.15	25
Roads	0.4	20
Open ground	0.1	15
Single family dwelling	0.5	10

Calculate the runoff coefficient and quantity of storm water runoff, if intensity of rainfall is 30 mm/h for rain with duration equal to time of concentration.   **[3 Marks]**