Dr Gyan Tarl Sgh

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- May 2017

M. Tech. 4th Semester

COURSE CODE: 11M1WCE133 MAX. MARKS: 35

COURSE NAME: BRIDGE ENGINEERING

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.*

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1. A slab panel of a reinforced concrete T-beam deck slab is 2.5 m wide between main girders and 4 m between cross girders. Design the slab for IRC class A loading (57 kN) adopt M20 grade concrete and Fe-415 grade HYSD bars **[10]**

2. Write the factor affecting the overall cost of a bridge. How an economic span of a bridge is calculated? Explain in brief. **[5]**

3. What are the essential data required for the design of a bridge? **[5]**

4. Described the following rational methods to find the distribution of live loads among the longitudinal girders

(a) Courbons' Method **[5]**

(b) Guyon Massonet Method **[5]**

(c) Hendry Jaegar Method **[5]**