

Government College Of Engineering, Aurangabad
(An Autonomous Institute of Government of Maharashtra)

T.E. (Civil) Rev - Examination
End Semester Examination – Nov 2016
CE 345: Transportation Engineering -I

Time: Three Hours

Max. Marks -60

24 NOV 2016

"Verify the Course Code and check whether you have got the correct question paper"

N. B.

1. Solve all questions and all questions carry equal marks.
2. Figure to the right indicate full marks
3. Assume suitable data if necessary and state it clearly

Q.1. Solve any Two

- (a) Give the classification of bridges
- (b) What are the criteria for selection of site for bridges?
- (c) Draw neat sketches for submersible and non-submersible bridges

Q.2. Solve any Two

- (a) How the flood discharge is determined by various empirical equations?
- (b) Explain in detail the loads considered for bridge design
- (c) Draw a neat sketch for well foundation showing its components for bridge

Q.3. Solve any Two

- (a) A bridge is proposed to be constructed across the stream carrying a discharge of $320 \text{ m}^3/\text{s}$. Silt factor is 1.12. Find maximum scour depth if bridge is consist of two span of 40 m each
- (b) Explain the cutoff and riprap as river training work
- (c) How the inspection bridges carried out?

Q.4. Solve any Two

- (a) Give the effect of creep of rail
- (b) What are the various components of crossing with neat sketch?
- (c) Give the classification of signals according to their functional characteristics

Q.5. Solve any Two

- (a) What are the factors considered for selection of new airport?
- (b) Explain the runway pattern with sketches for airport
- (c) What is meant by Wet Dock? Also explain the dock location on river side