TE-Sem-V-old-Civil-TE-I

23/5/17

QP Code : 29219

(REVISED COURSE)
(3 Hours) [Total Marks : 100

Note: i. Q.No. 1 is compulsory
ii. Attempt any 4 out of remaining 3
iii. Support all theory and numerical with neat sketch

1. A. What would be the permissible speed on curve if on a 3^0 B.G track, average speed of trains is 70 kmph. (08 M)
B. Solve the following. (12 M)
i. What is negative super elevation
ii. Explain Instrumental landing system.

2. A. Explain various elements of railway track with fixtures and fastenings. (08 M)
B. Compare Docks and Harbour. (06 M)
C. Explain airport obstructions. (06 M)

3. A. If the basic runway length for an airport situated at elevation of 150 meter is 1200 meter, find the actual runway length required if mean of average daily temperature and mean of maximum daily temperature is obtained as 38^0c and 47^0c respectively. Assume the runway to be horizontal (08 M)
B. Explain construction of new railway track. (06 M)
C. Numbering and markings on runway. (06 M)

4. A. Describe Marshalling yard. (08 M)
B. Explain instrumental landing system. (06 M)
C. What do you mean by uniformity of gauge. What are issues of non uniform gauges? (06 M)

5. A. If the basic runway length for an airport situated at elevation of 100 meter is 1000 meter, find the actual runway length required if mean of average daily temperature and mean of maximum daily temperature is obtained as 38^0c and 47^0c respectively. Assume the runway to be horizontal (08 M)
B. Explain various factors affecting capacity of an airport. (06 M)
C. Explain various theories of creep. (06 M)

6. A. Calculate all the elements of a turnout on B.G track if N=8.5, d=13.3 cm and angle of switch is 1^0 8′ 0″. Assume any other data if required. (08 M)
B. Explain various rail failures (06 M)
C. What are breakwaters? Discuss its types. (06 M)

7. Write short note on any 4. (20 M)
A. Marshalling yard.
B. Semaphore signal.
C. Interlocking of signal and points
D. Turning radius of an aircraft.
E. Components of airport.
