

TE - sem - V - old - Civil
TE - I

1/12/15

QP Code : 1692

(REVISED COURSE)
(3 Hours)

[Total Marks : 100

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

- Calculate all the elements of a turnout on B.G track if $N=8.5$, $d=13.3$ cm and angle of switch is $1^{\circ} 8' 0''$. Assume any other data if required. (08 M)
 - If the basic runway length for an airport situated at elevation of 200 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°C and 47°C respectively. Assume the runway to be horizontal (12 M)
- Explain various elements of railway track with fixtures and fastenings. (08 M)
 - Describe Dry docks. (06 M)
 - Explain airport obstructions. (06 M)
- What are various visual aids? Explain their role in safety and efficiency of airport. (08 M)
 - Explain construction of new railway track. (06 M)
 - Describe numbering and markings on runway. (06 M)
- What would be the permissible speed on curve if on a 6° B.G track, average speed of trains is 70 kmph and allowable cant deficiency is half that of maximum cant deficiency. (08 M)
 - Explain instrumental landing system. (06 M)
 - Explain uniformity of gauge. What are issues of non uniform gauges? (06 M)
- 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°C and 47°C respectively. Assume the runway to be horizontal (08 M)
 - Explain various factors affecting capacity of an airport. (06 M)
 - Explain various theories of creep. (06 M)
- Draw Layout of artificial harbour and explain purpose of each component. (08 M)
 - Explain various rail failures (06 M)
 - What are breakwaters? Discuss its types. (06 M)
- Write short note on any 4. (20 M)
 - Marshalling yard.
 - Semaphore signal.
 - Interlocking of signal and points.
 - Turning radius of an aircraft.
 - Components of airport.

QP-Con. 9258-15.