Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 20280

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2018.

Sixth Semester

Civil Engineering

CE 6604 — RAILWAYS, AIRPORTS AND HARBOUR ENGINEERING

(Regulations 2013)

(Common to : PTCE 6604 – Railways, Airports and Harbour Engineering., for B.E. (Part-Time)–Sixth Semester – Civil Engineering., –Regulations 2014)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define coning of wheels.
2. What is grade compensation?
3. Define tunneling.
4. What is marshaling yard?
5. What are the components of airports?
6. Define ICAO.
7. What is meant by basic runway length?
8. What is airport zoning?
9. Define mooring buoy.
10. Define Jetty and Quay.

PART B — (5 × 13 = 65 marks)

11. (a) Mention the relative merits and demerits of flat footed and double headed rails.

Or

(b) What is points and crossing? List their types. Draw a neat sketch of right hand turnout and explain.

12. (a) Discuss the importance of track drainage. How is this achieved?

Or

(b) Explain about the construction and maintenance of railway tracks.

13. (a) Enlist and explain the factors to be considered for the selection of site of an airport.

Or

(b) What are the facilities to be provided in the terminal building of an international airport?

14. (a) The length of runway at standard condition is 2500m. Determine the required runway length at an airport site with the following particulars.

Mean maximum daily temperature	=	44.5°C
Mean average daily temperature	=	28.3° C
Elevation of site above MSL	=	350m
Effective gradient of runway	=	0.21%

Or

(b) Briefly explain the night time aids provided at airports.

15. (a) Classify harbours on broad basis and on the basis of utility and explain with examples.

Or

(b) Write a detailed note on break waters.

PART C — (1 × 15 = 15 marks)

16. (a) Compare the different types of sleepers used in Indian railways.

Or

(b) Why shore protection is necessary? Explain the different shore protection works generally carried out.

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