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Question Paper Code : 60255

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

Fifth Semester

Civil Engineering

CE 2303/CE 52/10111 CEE 49 – RAILWAYS, AIRPORTS AND HARBOUR
ENGINEERING

(Regulations 2008/2010)

(Common to PTCE 2303/10111 CEE 49 Railways, Air ports and Harbour
Engineering for B.E. – (Part-Time) Fourth Semester – Civil Engineering —
Regulations 2009/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the uses of Remote Sensing in route alignments?
2. Mention the functions of formation.
3. List the type of signals based upon functional characteristics.
4. What is a buffer stop?
5. Write the uses of wind rose diagram.
6. Define wind direction Indicator.
7. Distinguish between 'holding apron' and 'blast pad'.
8. Define 'number of gate position'.
9. Distinguish between 'tides' and 'waves'.
10. Why is dredging so essential in port operations?

PART B — (5 × 16 = 80 marks)

11. (a) Explain the permanent way components with a neat sketch. (16)

Or

- (b) Explain in detail about rail fastenings and fixtures with a suitable figure.

12. (a) A 5° curve diverges from a main curve of 4° in an opposite direction in the layout of a B.G yard. If the speed on the main curve is restricted to 54.53 kmph, determine the speed restriction on the branch line. Assume permissible cant deficiency as 7.5 cm.

Or

- (b) Describe the operations involved in plate laying by the telescopic method.
13. (a) (i) Briefly explain about the airport Master Plan. (8)
(ii) What are the various imaginary zones in the airport and its near vicinity? Mention their significance. (8)

Or

- (b) (i) Explain the methods of orienting the runway of an airport, (8)
(ii) What are the various corrections to be applied on to the runway length? Explain the amount of such corrections with atypical example. (8)
14. (a) Briefly explain the Night - time aids provided at Airports. (16)

Or

- (b) Explain with neat sketches, about the Airport Markings. (16)
15. (a) (i) What are the requirements of a good port? (6)
(ii) Classify harbours on the basis of utility and explain them. (10)

Or

- (b) Distinguish between wet docks and dry docks. Describe the operation of the various dry docks with sketches.
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