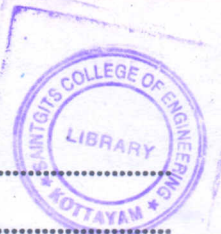


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Reg. No.....

Name.....



B.TECH. DEGREE EXAMINATION, MAY 2015

Sixth Semester

Branch : Civil Engineering

CE 010 604—TRANSPORTATION ENGINEERING—I (CE)

(New Scheme—2010 Admission onwards)

[Regular/Improvement/Supplementary]

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 3 marks.

1. List out some characteristics of highways.
2. What is wave theory ?
3. List notes on tunnel surveying.
4. Explain necessity of break waters.
5. List notes on Caissons.

(5 × 3 = 15 marks)

Part B

Answer all questions.

Each question carries 5 marks.

6. Explain about super elevation and cant deficiency.
7. List notes on track circuiting.
8. Write a brief note on drainage of tunnels.
9. Explain about some features of design of harbours.
10. List notes on (i) slip ways ; and (ii) dock entrances.

(5 × 5 = 25 marks)

Turn over

Part C

*Answer all questions.
Each fully question carries 12 marks.*

11. Explain :

- (i) Wear and creep of rails. (6 marks)
(ii) Surface and elevated railways. (6 marks)

Or

12. List notes on :

- (i) Compensation of gradients. (6 marks)
(ii) Functions of rail and sleepers. (6 marks)

13. Explain in detail about signalling and about interlocking of signals and points.

Or

14. A 5° curve diverges from a main curve of 4° in an opposite direction in the layout of a BG yard. If the speed on branch line is restricted to 50 kmph., determine speed restriction in main track. Assume permissible cant deficiency to be 7 cm.

15. List notes on :

- (i) Shield method of tunneling. (6 marks)
(ii) Lighting of tunnels. (6 marks)

Or

16. (a) Sketch different shapes of tunnel cross-section generally followed. (6 marks)

(b) List notes on tunnel lining and tunnel ventilation. (6 marks)

17. Describe classification, alignment and forces acting on break waters.

Or

18. Write short notes on :

- (a) Channel demarcation. (6 marks)
(b) Transit sheds and warehouses. (6 marks)

19. Define :

- (a) Lock and lock gates. (6 marks)
(b) Dry and wet docks. (6 marks)

Or

20. List notes on :

- (a) Dredging and its functions. (6 marks)
(b) Form and arrangement of basins and docks. (6 marks)

[5 × 12 = 60 marks]