



RN-6145

B. E. - II (Sem. III) (Civil) Examination

May / June - 2010

Transportation Engineering - I

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दर्शाविएल निशानीवाणी विगतो उत्तरवडी पर अवश्य बजवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. E. - 2 (Sem. 3) (Civil)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Transportation Engineering - 1"/>	<input type="text"/>
Subject Code No. : <input type="text" value="6"/> <input type="text" value="1"/> <input type="text" value="4"/> <input type="text" value="5"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="1&2"/>	<input type="text"/>
	Student's Signature

- (2) Write pointwise answers. Draw neat and clean diagrams.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary and mention it clearly.
- (5) Attempt all questions.
- (6) Answer to the two sections must be in separate answer book.

SECTION - I

- 1 (a) Compare railway and highway transportation. **7**
- (b) Explain flexibility characteristics of various modes of transportation. **8**

OR

- (b) Development of transportation before 19th century.
- 2 Attempt the following : (any four) **20**
 - (i) Ship buoyancy
 - (ii) Horse power and propulsive force
 - (iii) Highway carrier
 - (iv) Aircraft stability
 - (v) Wheel of industries
 - (vi) Transportation and individual

RN-6145]

1

[Contd...

- 3** Answer the following questions :
- (a) Calculate the actual length of the runway from the following data : **8**
- (i) Airport elevation above M.S.L., R.L = 100 m
 - (ii) Airport reference temperature = 28°C
 - (iii) Basic length of runway = 600 m
 - (iv) Effective gradient = 0.50%

OR

- (a) Explain "Carrier classification".
- (b) Explain factors affecting transportation development. **7**

SECTION - II

- 4** (a) Discuss advantages and disadvantages of railway system. **16**
- (b) Explain advantages and limitations of waterways.
- (c) Discuss advantages and disadvantages of airways with their limitations.
- 5** (a) What are the components of a Harbour? Discuss with sketch. **18**
- (b) What is wind rose diagram? Explain its uses for deciding runway orientation.
- (c) Write about classification of Indian railways.

OR

- 5** (a) Write strengths and weakness of Indian railways.
- (b) Write about components of airport with layout.
- (c) What is dock? What are the types of dock?
- 6** Attempt any **four** : **16**
- (i) Railway sleeper
 - (ii) Air traffic control system
 - (iii) Belt conveyer system
 - (iv) Dolphine
 - (v) Parking of aircrafts
 - (vi) MAGLEV