

SUBJECT CODE NO:- P-93
FACULTY OF ENGINEERING AND TECHNOLOGY
T.E.(Civil) Examination May/June 2017
Transportation Engineering-I
(Revised)

[Time: Three Hours]

[Max.Marks:80]

Please check whether you have got the right question paper.

- N.B
- 1) Q.1 from section A & Q.6 from section B are compulsory.
 - 2) Solve any two questions from remaining from each section.
 - 3) Figure to the right indicate full marks.

Section A

- Q.1 Explain the following terms [any five] 10
- a) Afflux
 - b) Economic span
 - c) Wing – wall
 - d) Approaches
 - e) Semi through bridge
 - f) Apron
 - g) Viaduct
 - h) Run – off
- Q.2
- a) What do you understand by river training? Explain the methods for river training in detail. 07
 - b) What are the basic patterns of run way configuration? Discuss each pattern. 08
- Q.3
- a) What is economic span for a bridge? Derive the relation for the same? 07
 - b) What is freeboard? What are the essentials to provide the free board in all types of bridges? 08
- Q.4
- a) Discuss the criteria for site selection of airport & sketch general layout of airport. 07
 - b) Define cofferdam. State the requirement of a cofferdam. Explain any two types of cofferdam. 08
- Q.5 Write short note on (any three) 15
- a) Airport lighting & marking.
 - b) Wind rose diagram
 - c) IRC loading on bridges
 - d) Foundation for bridges
 - e) Cause way.

Section B

- Q.6 Explain the following terms [any five] 10
- a) Permanent way
 - b) Creep of rail
 - c) Dock and harbor
 - d) Signaling
 - e) Water column
 - f) Yard

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- g) Points and crossing
h) Gradients
- Q.7 a) Write working procedure of absolute block system & following train system of signaling. 08
b) What is tilting of rail? Why it is being adopted. 07
- Q.8 a) What is creep of rail? What measures are commonly adopted to prevent creep? 07
b) Draw the cross sections of broad gauge track in embankment & cutting for single line & double line. 08
- Q.9 a) Differentiate between dry docks & wet docks and stations & yards. 08
b) What are acute & obtuse crossing. Describe both with neat sketch. 07
- Q.10 Write a short note on (any three) 15
a) Requirement of railway station
b) Coning of wheel
c) Classification of Dock & Harbor.
d) Fish- plate & fish-bolts.
e) Sleeper density