



BLACK DIAMOND SCHOOL OF ENGINEERING

CIVIL ENGINEERING DEPARTMENT

QUESTION BANK

6TH SEMESTER

SUB: RAILWAY & BRIDGE ENGINEERING

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RAILWAY AND BRIDGE ENGINEERING .
6th Sem , CE .

1. Short questions :-

- a) Define the fixture and fastenings
- b) Define the point and crossing.
- c) Write the component parts of a bridge and their function.
- d) Explain the classification of track maintenance job.
- e) Define bridge foundation
- f) Write the function of ball ballast.
- g) What are the types of sleepers?
- h) Explain the types of rails.
- i) Define permanent way.
- j) What is the necessity of cross drainage works for roads and railways

2. Answer the following questions :-

- a) Explain the necessity of grade compensation on curves with sketch.
- b) Draw a standard c/s of BG single line in cutting and label the parts.
- c) Draw a simple switch turnout and label the parts. Define any four parts of the turnout.
- d) What are bridge bearings? Give its function
- e) Draw the sketch of fish plate and key.
- f) State the eight factors affecting site selection of railway station.

3 Long questions :

a) Write short notes on :-

- (i) Gradients in station yards.
- (ii) Equilibrium cant
- (iii) Superelevation
- (iv) Designation of curve
- (v) Widening of gauge on curves.

b) Define the culvert and explain the types of culvert.

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6th Sem, Civil Engg.

1 Short questions :-

[2 x 10].

- a) List the modes of transportation systems.
- b) Define rail gauge.
- c) Define ruling gradient.
- d) Define pusher gradient.
- e) List out the components of left hand turnout.
- f) Write the functions of rail fixtures and fastenings.
- g) Name the types of station yard.
- h) What are the preventive measures to avoid creep.
 - i) Write the classification of bridge.
 - j) What is point and crossing?

2 Answer the following :-

- a) Describe the causes and effects of creep of rail.
- b) Classify the bridge based on
 - (i) its purpose.
 - (ii) material used for its construction.
- c) Discuss the factors affecting while selection of rail gauge.
- d) Explain the function of bridge bearings.
- e) Draw a labeled sketch of L-section of bridge showing its components.
- f) Describe the factors affecting the site selection of a bridge construction.

3. Long questions -

- a) state any four advantages and disadvantage of pre-stressed bridge and explain land foundation
- b) Explain the necessity of negative cant with sketch.
- c) Explain the daily and periodic maintenance of rail track

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6th Sem , CE .

1 Short questions :-

[10x2]

- a) Define the piers .
- b) Define the temporary bridge
- c) Define tunnel engineering
- d) Define the raft foundation
- e) Define the well foundation .
- f) Explain the classification of signal
- g) Define the level-crossing.
- h) Define the railway engineering
- i) Define the rail
- j) what are the functions and types of rails ?

2 Answer the following :-

[6x5]

- a) Explain sub structure and super structure components of a bridge .
- b) Write the factors affecting rail alignment .
- c) what is marshalling yard ? State its functions .
- d) Differentiate between wooden sleepers and concrete sleepers
- e) Differentiate between fish plate and bearing plate .
- f) Explain the necessity of grade compensation on curves with sketch .

3 Long questions

- a) Classify the bridges according to
(i) alignment (ii) Position of HFL.
- b) Explain with neat sketch coning of wheels. What is the necessity of tilting of rails.