Code No: R1631015 **R16** SET - 1

**III B. Tech I Semester Regular Examinations, October/November - 2018**

# TRANSPORTATION ENGINEERING – II

(Civil Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**

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## PART –A

| | | | |
|---|---|---|---|
| 1. | a) | What are components of Permanent Way? | [2M] |
| | b) | How various Gauges are different from each other? | [2M] |
| | c) | What are various surveys that are conducted for railway alignment? | [2M] |
| | d) | Draw a general layout of Airport Layout | [3M] |
| | e) | What are various design factors of Runway? | [3M] |
| | f) | How ports are classified? | [2M] |

## PART -B

| | | | |
|---|---|---|---|
| 2. | a) | What are the functions of Rails and Sleepers? | [7M] |
| | b) | Write about Creep theory of Rails. | [7M] |
| 3. | a) | What are factors to be considered for selection of Railway Alignment? | [7M] |
| | b) | Write about Vertical Curves of Railway Network. | [7M] |
| 4. | a) | What is the purpose of Turnout? Give various types with neat diagram. | [7M] |
| | b) | What are the objectives of Signaling in Railways? | [7M] |
| 5. | a) | Ministry of Civil Aviation is planning an International Airport at one City. How various factors affect site selection of Airport? | [7M] |
| | b) | AAI is redesigning lighting system at an existing Airport. Discuss about standards of Airport lighting. | [7M] |
| 6. | a) | Discuss about design methods of flexible pavements of Runway. | [7M] |
| | b) | Write about maintenance of Airfield Pavement. | [7M] |
| 7. | a) | Government is planning a Good Port at one Sea Shore. What are the requirements of good Port explain it to Port In-charge? | [7M] |
| | b) | Compare Dry and Wet Dock. | [7M] |

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Code No: R1631015 **R16** SET - 2

**III B. Tech I Semester Regular Examinations, October/November - 2018**

# TRANSPORTATION ENGINEERING – II

(Civil Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**

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## PART –A

| | | | |
|---|---|---|---|
| 1. | a) | What is Permanent Way? | [2M] |
| | b) | List various Gauges of Railway Track. | [2M] |
| | c) | What are various alignments of Railway Track? | [2M] |
| | d) | What is Wind rose diagram? | [3M] |
| | e) | What are different methods of flexible pavement of Runway? | [3M] |
| | f) | Differentiate between Dry and Wet Dock. | [2M] |

## PART -B

| | | | |
|---|---|---|---|
| 2. | a) | What are the requirements and functions of Ballast? | [7M] |
| | b) | Explain about Rail Joints. | [7M] |
| 3. | a) | What are various Gradients in Railways? Explain Grade Compensation. | [7M] |
| | b) | Explain widening of Gauge at Curves. | [7M] |
| 4. | a) | Write about various components of Turnout. | [7M] |
| | b) | Discuss about classification of Signaling in Railways. | [7M] |
| 5. | a) | Write about characteristics of Aircraft. | [7M] |
| | b) | What are the corrections to be adopted for Runway length? Discuss. | [7M] |
| 6. | a) | Explain about design factors of Runway Pavement. | [7M] |
| | b) | How drainage is designed for Runway? | [7M] |
| 7. | a) | What are the uses of Transition Shed in Port? | [7M] |
| | b) | Write about Break waters. | [7M] |

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Code No: R1631015 **R16** SET - 3

**III B. Tech I Semester Regular Examinations, October/November - 2018**

# TRANSPORTATION ENGINEERING – II

(Civil Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**

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## PART –A

| | | | |
|---|---|---|---|
| 1. | a) | Draw a neat diagram of Permanent Way. | [2M] |
| | b) | What is Gauge? | [2M] |
| | c) | List various Gradients in Railways. | [2M] |
| | d) | How the direction of a Runway is fixed? | [3M] |
| | e) | What are different methods of rigid pavement of Runway? | [3M] |
| | f) | What is the purpose of Warehouse? | [2M] |

## PART -B

| | | | |
|---|---|---|---|
| 2. | a) | What are the components of Permanent Way? Explain. | [7M] |
| | b) | Write about Rail fastenings? | [7M] |
| 3. | a) | Define Cant. What are the objectives of it? | [7M] |
| | b) | Write about widening of Gauge on Curves. | [7M] |
| 4. | a) | Discuss about various types of Switches. | [7M] |
| | b) | Explain about Mechanical Signaling System. | [7M] |
| 5. | a) | How Airports are classified based on various aspects? | [7M] |
| | b) | Write about standards Airport Markings. | [7M] |
| 6. | a) | A flexible pavement is planned at a New Airport for Runway. How Runway pavement is designed? | [7M] |
| | b) | What is the process of strengthening of Airfield Pavement? | [7M] |
| 7. | a) | Describe the construction process of Quay wall. | [7M] |
| | b) | Write about Tides data and Analysis. | [7M] |

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Code No: R1631015 **R16** SET - 4

**III B. Tech I Semester Regular Examinations, October/November - 2018**

# TRANSPORTATION ENGINEERING – II

(Civil Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**

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## PART –A

| | | | |
|---|---|---|---|
| 1. | a) | List Permanent Way components. | [2M] |
| | b) | Give two uses of Uni-Gauge Policy. | [2M] |
| | c) | What is Degree of Curve? | [2M] |
| | d) | How Airports are classified? | [3M] |
| | e) | What are the main points to considered for Airport Drainage? | [3M] |
| | f) | Draw a neat diagram of Break Water. | [2M] |

## PART -B

| | | | |
|---|---|---|---|
| 2. | a) | What are various types of Gauges of Railway network? Explain. | [7M] |
| | b) | Write about Sleeper Density. | [7M] |
| 3. | a) | Calculate Cant for BG Track, $2^0$ Curve, equilibrium speed 80Kmph. | [7M] |
| | b) | Define Transition Curve. Write about purpose and requirements of it. | [7M] |
| 4. | a) | How Turnout is designed? | [7M] |
| | b) | Write about methods of interlocking. | [7M] |
| 5. | a) | Explain about ICAO recommendations of Airport Master Plan. | [7M] |
| | b) | What are the requirements of Air Traffic Control? | [7M] |
| 6. | a) | Discuss about LCN system of Pavement design for Runway. | [7M] |
| | b) | How Airfield Pavements are evaluated? | [7M] |
| 7. | a) | You are appointed as an Engineer in a Port. Explain the importance of Dredging to the workers in that Port? | [7M] |
| | b) | How do you help (aid) the ship to follow a particular path in Sea? | [7M] |

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