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**PRESIDENCY  
UNIVERSITY  
BENGALURU**

**School of Engineering**

**Mid - Term Examinations - November 2024**

**Semester : I**

**Date: 07-11-2024**

**Course Code: CIV1008**

**Time: 11.45am to 01.15pm**

**Course Name: Basic Engineering Sciences**

**Max Marks: 50**

**Program : B.Tech**

**Weightage: 25%**

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**Instructions:**

*(i) Read all questions carefully and answer accordingly.*

*(ii) Do not write anything on the question paper other than roll number.*

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**Part A**

**Answer ALL the Questions. Each question carries 2marks.**

**5Qx2M=10M**

- |          |  |                |           |            |
|----------|--|----------------|-----------|------------|
| <b>1</b> | Outline any four objectives of providing foundation.                     | <b>2 Marks</b> | <b>L2</b> | <b>CO1</b> |
| <b>2</b> | Define the following terms associated with roads (i) Camber (ii) Median. | <b>2 Marks</b> | <b>L1</b> | <b>CO1</b> |
| <b>3</b> | Classify the bridges based on structural action.                         | <b>2 Marks</b> | <b>L2</b> | <b>CO1</b> |
| <b>4</b> | List any four advantages of dams.  | <b>2 Marks</b> | <b>L1</b> | <b>CO1</b> |
| <b>5</b> | Why precast concrete is also called prefabricated concrete?              | <b>2 Marks</b> | <b>L1</b> | <b>CO2</b> |

**Part B**

**Answer ALL Questions. Each question carries 10 marks.**

**4QX10M=40M**

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|----------|---|-----------------|-----------|------------|
| <b>6</b> | Discuss briefly the components of a railway track with the help of a neat sketch. | <b>10 Marks</b> | <b>L2</b> | <b>CO1</b> |
|----------|---|-----------------|-----------|------------|

**Or**

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|----------|--|-----------------|-----------|------------|
| <b>7</b> | Describe the functions of various components of airport. | <b>10 Marks</b> | <b>L2</b> | <b>CO1</b> |
|----------|--|-----------------|-----------|------------|

- |          |           |   |                |           |            |
|----------|-----------|---|----------------|-----------|------------|
| <b>8</b> | <b>8a</b> | Compare framed structure with load bearing structures.            | <b>5 Marks</b> | <b>L2</b> | <b>C01</b> |
|          | <b>8b</b> | Outline the classification of bridges based on structural action. | <b>5 Marks</b> | <b>L2</b> | <b>C01</b> |

**Or**

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|----------|--|--|-----------------|-----------|------------|
| <b>9</b> |  | With the help of a neat sketch, explain the types of shallow foundation. | <b>10 Marks</b> | <b>L2</b> | <b>C01</b> |
|----------|--|--|-----------------|-----------|------------|

- |           |  |  |                 |           |            |
|-----------|--|--|-----------------|-----------|------------|
| <b>10</b> |  | Explain the water treatment process using a schematic diagram. | <b>10 Marks</b> | <b>L2</b> | <b>C01</b> |
|-----------|--|--|-----------------|-----------|------------|

**Or**

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|-----------|------------|---|----------------|-----------|------------|
| <b>11</b> | <b>11a</b> | List the various sources of water.            | <b>2 Marks</b> | <b>L2</b> | <b>C01</b> |
|           | <b>11b</b> | Discuss the functions of components of a dam. | <b>8 Marks</b> | <b>L2</b> | <b>C01</b> |

- |           |            |  |                |           |            |
|-----------|------------|--|----------------|-----------|------------|
| <b>12</b> | <b>12a</b> | List any four advantages of mechanization process in construction. | <b>2 Marks</b> | <b>L1</b> | <b>C02</b> |
|           | <b>12b</b> | Explain any two methods of pre cast building construction.         | <b>8 Marks</b> | <b>L2</b> | <b>C02</b> |

**Or**

- |           |            |  |                |           |            |
|-----------|------------|--|----------------|-----------|------------|
| <b>13</b> | <b>13a</b> | Outline the application of Artificial Intelligence in construction planning process. | <b>5 Marks</b> | <b>L2</b> | <b>C02</b> |
|           | <b>13b</b> | List the applications of robotics in construction.                                   | <b>5 Marks</b> | <b>L1</b> | <b>C02</b> |