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Total Number of Pages: 02

Integrated Dual Degree (B.Tech and M.Tech)

Sub\_Code: 23ES1005

2<sup>nd</sup> Semester Regular Examination: 2023-24

SUBJECT: Basic Civil Engineering

BRANCH(S): ALL

Time: 3 Hour

Max Marks: 100

Q.Code : P521

Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.

The figures in the right hand margin indicate marks.

Part-I

Q1 Answer the following questions:

(2 x 10)

- Differentiate between sub-structure and superstructure.
- State the two functions of foundation of a structure.
- Mention two uses of cement mortar.
- Write two advantages of painting a building.
- Differentiate between rigid and flexible pavement.
- State two major sources of water supply system.
- Define disinfection process in water treatment.
- Mention the two purpose of construction of dams.
- Write two importance of irrigations.
- State tow basic requirement of urban roads.

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- Explain the importance of civil engineering in the infrastructure development of country.
- Provide a detail classification of bricks as per Indian standards.
- State about the different types of glass used in construction and their uses.
- Write the different applications of concrete in construction sector.
- Provide the basic layout of public water supply system.
- Explain about the basic components of road with neat sketch.
- Write a short note on various types foundations used in construction.
- Give a layout of canal irrigation system with neat sketch.
- Name the different types of cements used in construction work.
- Provide a brief classification of various types plastics used in construction work.
- Write in brief about the importance of irrigation in India.
- State the purposes of construction of dams in India.

**Part-III**

**Only Long Answer Type Questions (Answer Any Two out of Four)**

- Q3** Provide a detailed classification of buildings as per national building code (NBC). **(16)**
- Q4** Discuss in detail about the classification of stones with examples. **(16)**
- Q5** Classify the rural and urban roads as per Indian standards. State the advantages of the three major modes of transportations. **(16)**
- Q6** Describe in brief about the different steps involved in conventional water treatment process with diagram. **(16)**