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220756C

5th Sem.
Branch : Civil
Subject : Advanced Construction Technology

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)

Q.1 The main advantage of steel fibre reinforcement is: (CO1)

a) Increased compressive strength
b) Increased tensile strength
c) Increased flexibility
d) Reduced weight

Q.2 FRP stands for: (CO1)

a) Fibre Resistant Plastic
b) Fibre Reinforced Plastic
c) Fibre Recycled Product
d) Fibre Reinforced Polyethylene

Q.3 Which of the following vibrators is commonly used for concrete consolidation in large slabs? (CO2)

a) Internal vibrator b) Surface vibrator
c) Needle vibrator d) Form vibrator

Q.4 Which equipment is typically used in the foundation construction of bridges? (CO3)

a) Power shovel b) Derrick pole
c) Trenching equipment d) Scraper

Q.5 Gantry cranes are used for : (CO4)

a) Moving soil
b) Transporting materials horizontally
c) Drilling
d) Pile driving

Q.6 The main function of vibratory rollers is: (CO5)

a) Excavating
b) Compacting soil or asphalt
c) Lifting heavy materials
d) Grading Land

Section-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Carbon fibres are mainly used in concrete to improve its _____ properties. (CO1)

Q.8 Plastics like HDPE and RPVC are used primarily for _____. (CO1)

Q.9 The Tremie method is used for _____. (CO2)

Q.10 Define Prefabrication. (CO3)

Q.11 Tower cranes are typically used in the construction of _____. (CO4)

Q.12 Graders are primarily used for _____. (CO5)

Section-C

Note: Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)

Q.13 Explain the properties and applications of polypropylene fibres in construction. (CO1)

Q.14 What are the uses of micro-silica in construction?(CO1)

Q.15 What are the benefits of using roller-compacted concrete in infrastructure projects? (CO2)

Q.16 Describe the process of underwater concreting using the Tremie method. (CO2)

Q.17 What is the significance of using geo-synthetics in embankment construction? (CO3)

Q.18 Discuss the construction equipment used in high-rise building Construction. (CO3)

Q.19 Explain the working of a power-driven scotch derrick crane. (CO4)

Q.20 How do belt conveyors assist in material handling in construction? (CO4)

Q.21 What are the working principles of bulldozers used in excavation? (CO5)

Q.22 Explain the role of compacting equipment in construction projects. (CO5)

Section-D

Note: Long answer questions. Attempt any two question out of three Questions. (2x8=16)

Q.23 Discuss the use of waste products and industrial by products in the production of bricks, blocks, and concrete. (CO1)

Q.24 Describe the role and working principles of pile-driving equipment in construction projects. (CO5)

Q25 What are the different types of rollers used in soil compaction? Describe their roles. (CO5)