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Roll No.

220763B

6th Sem / Civil
Subject : Repair and Maintenance of Civil Infrastructure

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Which of the following thickness is commonly adopted for laying DPC.

- a) 12 mm
- b) 25 mm
- c) 15 mm
- d) 30 mm

Q.2 Which of the following is the normal defect that is looked during the visual Inspection.

- a) Corrosion of rebar
- b) cover details
- c) Honeycomb
- d) joints formation

Q.3 How many types of crack can occur in a building.

- a) 2
- b) 3
- c) 4
- d) 5

Q.4 Creep in concrete structure increase with.

- a) increase in Humidity
- b) increase in water
- c) Decrease in temperature
- d) decrease in Humidity

Q.5 Rebound Hamer test value for good quality of concrete.

- a) less than 20
- b) 20 to 30
- c) 30 to 40
- d) more than 40

Q.6 Bridge girders located in zone of very severe exposure conditions suffer.

- a) Spalling
- b) Bleeding
- c) Winding
- d) Spinning

SECTION-B

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

Q.7 Routine maintenance is also known as _____

Q.8 Efflorescence is the effect of _____ on bricks .

Q.9 What is the use of cover meter.

(1)

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(2)

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Q.10 Name of various non destructive test to determine quality and strength of concrete.

Q.11 Lateral building of beams may occur due to _____

Q.12 INP stand for.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. $(8 \times 4 = 32)$

Q.13 What are the common methods of crack repairing in Buildings?

Q.14 What are the factors influencing the repair and maintenance.

Q.15 What are the environmental factors responsible for deteriorations of building.

Q.16 Write a short note on rebound hammer test.

Q.17 List atleast ten typical defects in building.

Q.18 What are the basic properties of good repair material.

Q.19 Describe characteristics of an ideal waterproofing system

Q.20 Describe ultrasonic pulse velocity test.

Q.21 List the main component of a building.

Q.22 Define modern waterproofing repair techniques.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. $(2 \times 8 = 16)$

Q.23 Explain different tests including non-destructive test to evaluate the condition of a building.

Q.24 What is sealant and describe its types of sealants.

Q.25 Explain effects of various agencies of deteriorations in different building materials.