

- Q.24 What are the factors responsible for painting defects? (CO2)
- Q.25 How rusting of reinforcement causes deterioration of concrete? (CO2)
- Q.26 What is systematic investigation? What are the requirements of Systematic investigation? (CO3)
- Q.27 What is non-destructive testing? What are the salient features of non destructive testing? (CO3)
- Q.28 Write short note on rebound hammer test. (CO3)
- Q.29 What are various sources of dampness in a building? (Co4)
- Q.30 What are basic properties of good repair material? (CO5)
- Q.31 List different types of repair materials. (CO5)
- Q.32 What are rebar primers. Also write the main ideal characteristics for a Rebar primer. (CO5)
- Q.33 What are different methods of surface preparation for repair work? (CO6)
- Q.34 What a grooving and sealing method of crack repair? (CO6)
- Q.35 What are the common sources of leakage of flat roofs? (CO6)

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 What are different types of maintenance work? (CO1)
- Q.37 Discuss birds mouth technique and dry packing techniques of material placement with sketches. (CO6)
- Q.38 Discuss different methods of waterproofing for flat roofs. (Co6)

**Note:** Course Outcome (CO) mentioned in the question paper is for official purpose only.

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### 6th Sem / Branch : Civil Engg./Brick Tech. Constr. Mgmt. Sub.: Repair & Maintenance of Buildings

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Maintenance activities undertaken before the defects occur or damage developed in the structure is known as (CO1)
- Routine maintenance
  - Preventive maintenance
  - Special maintenance
  - Remedial maintenance
- Q.2 Maintenance activities undertaken at predetermined interval to attend the defects is known as (CO1)
- Emergency maintenance
  - Special maintenance
  - Remedial maintenance
  - Routine maintenance
- Q.3 Blistering is due (CO2)
- Trapping of water vapour
  - Loss of brightness
  - Fading
  - Blooming
- Q.4 Write deposit of salts on the surface of the brick indicates? (CO2)
- Mortar
  - Spalling
  - Efflorescence
  - Biological

- Q.5 Breakdown of surface mortar accompanied with loss of surface aggregates is known as (CO3)
- Leaching
  - Scaling
  - Staining
  - Carbonation of concrete
- Q.6 Equipments which is used for assessing cover to reinforcement diameter of bars and locations of bar is known as (CO3)
- Ultrasonic
  - Windsor probe
  - Cover meter
  - Visual inspection probes
- Q.7 Which is the main cause of defects in building (CO4)
- Dampness
  - Relative movement of components
  - Effects of environmental factor
  - All of the above
- Q.8 Which of the following is the example of water borne adhesives (CO5)
- Epoxies
  - Latex powder
  - Silicons
  - Polyesters
- Q.9 Which of the following are different types of repair material? (CO5)
- Anti corrosion coating
  - Adhesive aids
  - Repair mortars
  - All of the above
- Q.10 Air bubbles trapped at the surface of cast-in-situ concrete during Placement of components is due to (CO6)
- Bug holes
  - Form tie holes
  - Honey comb
  - Contraction

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## SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Enhancement of durability longevity and serviceability of building structures depend upon careful design, good workmanship and continuous \_\_\_\_\_. (CO1)
- Q.12 \_\_\_\_\_ is the most widely used plastic material in buildings. (CO2)
- Q.13 Acidic ground water can cause \_\_\_\_\_ of concrete. (CO2)
- Q.14 Relative strength of concrete is determined by \_\_\_\_\_. (CO3)
- Q.15 Accumulation of grease and dirt causes \_\_\_\_\_ of traps. (CO4)
- Q.16 Excessive deflection and lateral bulging are the defects mainly found in \_\_\_\_\_. (CO4)
- Q.17 A good repair material should have the best combination of low shrinkage. Mechanical properties and adhesion in \_\_\_\_\_ and wet conditions. (CO5)
- Q.18 The process of keeping the finished concrete surface moist to enable it to gain strength is called \_\_\_\_\_. (CO5)
- Q.19 DPC stands for \_\_\_\_\_. (CO6)
- Q.20 Improper mixing and inadequate compaction result into \_\_\_\_\_ in concrete. (CO6)

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 List the important factors that influence the repair and maintenance. (CO1)
- Q.22 Write a short note on preventive maintenance. (CO1)
- Q.23 What are the various human factors causing deterioration of building? (CO2)

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