

No. of Printed Pages : 4  
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180755-A

**5th Sem / Civil, 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)

- a) Routine maintenance
- b) Preventive maintenance
- c) Special maintenance
- d) Remedial maintenance

**Q.2** Routine maintenance is also known as (CO1)

- a) Emergency maintenance
- b) Preventive maintenance
- c) Fixed time maintenance
- d) Remedial maintenance

**Q.3** Blistering is due (CO2)

- a) Trapping of water vapours
- b) Loss of brightness
- c) Fading
- d) Blooming

**Q.4** In masonry problems, paint blistering indicates (CO2)

- a) Indicates the wall is broken
- b) Indicates movement with wall

- Q.5** c) Indicates excessive moisture  
d) Absorbs moisture trapped in the paint  
Breakdown of surface mortar accompanied with loss of surface aggregates is known as (CO3)
- a) Leaching
  - b) Scaling
  - c) Staining
  - d) Carbonation of concrete
- Q.6** Removal of soluble matter from brickwork is called (CO3)
- a) Scaling b) Spalling
  - c) Leaching d) Rusting
- Q.7** Which is the main cause of defects in building (CO4)
- a) Dampness
  - b) Relative movement of components
  - c) Effects of environmental factor
  - d) All of above
- Q.8** Which of the following is the example of water borne adhesives (CO5)
- a) Epoxies b) Latex powder
  - c) Silicons d) Polyesters
- Q.9** Most commonly used adhesives in repair work are (CO5)
- a) Solvent free adhesives
  - b) Waterborne adhesives
  - c) Both (a) and (b)
  - d) None of these
- Q.10** Air bubbles trapped at the surface of cast-in-situ concrete during Placement of components is due to (CO6)
- a) Bug holes b) Form tie holes
  - c) Honeycomb d) Contraction

## **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 Efflorescence is the effect of \_\_\_\_\_ on the brick. (CO2)
- Q.14 NDT stands for \_\_\_\_\_. (CO3)
- Q.15 Accumulation of grease and dirt causes \_\_\_\_\_ of traps. (CO4)
- Q.16 The main cause of spalling in flat roof is \_\_\_\_\_ to reinforcement. (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 A good repair material should possess good \_\_\_\_\_ and bond strength with existing substrate. (CO5)
- Q.19 A good quality concrete must be \_\_\_\_\_. (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 Enlist any five important factors that influence the repair and maintenance. (CO1)
- Q.22 Define remedial maintenance? List the steps involved in the process of remedial maintenance. (CO1)
- Q.23 Explain any five human factors causing deterioration of buildings? (CO2)

- Q.24 List the factors governing choice of constructional material. (CO2)
- Q.25 How rusting of reinforcement causes deterioration of concrete? (CO2)
- Q.26 Enlist any five objectives of the investigation of defects in buildings? (CO3)
- Q.27 Define non-destructive test? What are the salient features of non destructive testing? (CO3)
- Q.28 Write short note on rebound hammer test. (CO3)
- Q.29 Describe various causes of defects in new buildings? (CO4)
- Q.30 Explain five basic properties of good repair material. (CO5)
- Q.31 List different types of repair materials. (CO5)
- Q.32 Write a short note on curing compounds? (CO5)
- Q.33 Describe the basic activities that must be carried out on regular basis to prevent deterioration of concrete? (CO6)
- Q.34 Explain grooving and sealing method of crack repair? (CO6)
- Q.35 Describe 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 Describe various activities that fall under the routine maintenance of buildings. (CO1)
- Q.37 Discuss various causes and their effect and symptoms of deterioration of building. (CO3)
- Q.38 Discuss different methods of waterproofing for flat roofs. (CO6)

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