

- Q.24 List the factors which must be ascertained during investigation of defects in structures. (CO-3)
- Q.25 Explain ultrasonic pulse velocity test. (CO-3)
- Q.26 What are the causes of cracks in foundation?(CO-4)
- Q.27 Why is it most important to do the timely analysis of defects in building? (CO-4)
- Q.28 Explain compatibility of repair materials. (CO-5)
- Q.29 What is the necessity of using protective coatings? (CO-5)
- Q.30 Explain grooving and sealing method of crack repair. (CO-6)
- Q.31 Write advantage and disadvantages of guniting. (CO-6)
- Q.32 Explain different types of preventive maintenance for concrete. (CO-6)
- Q.33 Which defects are observed in plastics? (CO-2)
- Q.34 What are the sources of dampness in building. (CO4)
- Q.35 Write the advantages of using curing compounds? (CO-5)

#### Section-D

- Note:** Long answer Questions. Attempt any two Questions out of three Questions. (2x10=20)
- Q.36 Explain modern waterproofing repair technique. (CO-6)
- Q.37 Explain water proofing materials for roof of repair material.
- Q.38 Write typical defects in Buildings.

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**Branch : Civil Engg.**

**Subject : Repair and Maintenance of Buildings**

**Time : 3 Hrs.**

**M.M. : 100**

#### SECTION-A

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

- Q.1 \_\_\_\_\_ is removal of soluble matter by running water.
- a) Leaching                      b) Cracking
- c) Scaling                        d) Rust staining
- Q.2 Which among the following is not a type of non-destruction test (NDT).
- a) Rebound hammer test
- b) Compression test
- c) Ultrasonic Pulse velocity test
- d) Concrete core test
- Q.3 The Blockage of drainage waste water pipe is mainly due to
- a) Household waste
- b) Body crack
- c) Faulty plumbing
- d) Water seal broken
- Q.4 The presence of soluble salt in the plater making materials as well as building materials is due to \_\_\_\_.

- a) Peeling                      b) Flaking  
C) Efflorescence              d) Flashing
- Q.5 What is the properties of good repair materials?  
a) Good bond strength  
b) Low shrinkage properties  
c) Good work ability  
d) All of these
- Q.6 Trowel applied method can be used for horizontal, vertical or overhead repair are \_\_\_\_\_ with little or no reinforcing steel.  
a) More than 25mm deep  
b) Less than 25mm deep  
c) Between 30 to 50 mm deep  
d) More than 50 mm deep
- Q.7 What is the correct characteristics of ideal water Proofing system  
a) Maximum water absorption  
b) Short life  
c) Flexible under various climate and environmental condition  
d) All of these
- Q.8 If the average rebound hammer on tester is the between 20 to 30 the quality of concrete  
a) Good                      b) Very Good  
c) Poor                      d) Fair
- Q.9 Which of the following repair mortar or concrete have high strength, good adhesion proportion.  
a) Resin mortar              b) Cementitious mortar  
c) Polymer mortar        d) None of these

- Q.10 The form of spray to form a film which repel stop evaporation of water from the placed concrete is known as  
a) Anti corrosion coating  
b) Curling compounds  
c) Protective coating  
d) Water proofing system

### Section B

**Note:** Objective type Questions. All Questions are compulsory. (10x1=10)

- Q.11 What do you mean by maintenance? (CO-1)  
Q.12 What is Blistering? (CO-2)  
Q.13 Define diagnosis of defects. (CO-3)  
Q.14 What is defects in Building? (CO-4)  
Q.15 What is clogging? (CO-4)  
Q.16 What is joint sealants? (CO-5)  
Q.17 What is wet hessian? (CO-5)  
Q.18 What is Acid etching? (CO-6)  
Q.19 What is stitching of cracks? (CO-6)  
Q.20 Define efflorescence (CO-6)

### Section-C

**Note:** Short answer type Questions. Attempt any twelve Questions out of fifteen Questions. (12x5=60)

- Q.21 Which steps are taken in the process of remedial maintenance? (CO-1)  
Q.22 List human factors causing deterioration of the building. (CO-2)  
Q.23 How does ground water and salts deteriorate the structure? (CO-2)