

No. of Printed Pages : 4
Roll No.

180755A

Civil

Subject:- Repair & Maint. Of Buildings

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Activities undertaken at predetermined interval periodically to attend to defects of structure is (CO1)
- a) Special maintenance
 - b) Remedial maintenance
 - c) Routine maintenance
 - d) Emergency maintenance
- Q.2 Which of these factors cause deterioration of building. (CO2)
- a) Human factors b) Chemical factors
 - c) Environmental factor d) All of these
- Q.3 Which of the following is a non-destructive test (CO3)
- a) Rebound hammer test
 - b) Ultrasonic pulse velocity test
 - c) pull out test
 - d) All of these
- Q.4 Which of the following is main cause of cracks in columns (CO4)
- a) Excessive loading b) Eccentric loading
 - c) Shrinkage d) All of these
- Q.5 ACI denotes (CO5)
- a) Asian concrete institute
 - b) American concrete institute

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- c) African concrete institute
 - d) None of these
- Q.6 Thickness of polymer modified cementitious mortars is (CO5)
- a) 2-4 mm b) 5-7 mm
 - c) 12-15 mm d) 20-25 mm
- Q.7 INP stands for (CO6)
- a) Indian polymer network
 - b) Ideal polymer network
 - c) Interpenetrating polymer network
 - d) None of these
- Q.8 Which of the following are surface defects of concrete (CO6)
- a) Bug holes
 - b) Form tie holes
 - c) Honeycomb and larger voids
 - d) All of these
- Q.9 Which of following is pneumatic technique (CO6)
- a) Dry packing
 - b) Open top placement
 - c) Guniting technique
 - d) Trowel applied method
- Q.10 Epoxy coating is which type of technique (Co6)
- a) Grouting
 - b) Modified bituminous system
 - c) liquid membrane system
 - d) None of these

SECTION-B

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

- Q.11 The maintenance operation done before the defects occurred or damage developed in structure is _____ (CO1)

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- Q.12 Plastics creel under _____ loading. (CO2)
 Q.13 The main cause of spalling is the bar expansion due to _____. (CO3)
 Q.14 Non-provision of expansion joints below DPC level causes _____ in foundation (CO4)
 Q.15 Define curing. (CO5)
 Q.16 INP stands for _____. (CO5)
 Q.17 Define durability of concrete. (CO5)
 Q.18 Preventive maintenance of concrete structure enhances its _____. (CO6)
 Q.19 Contraction of floor panels results in _____. (CO6)
 Q.20 Improper mixing and inadequate compaction results in _____ concrete. (CO6)

SECTION-C

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

- Q.21 Define remedial maintenance. What are various steps involved in the process of remedial maintenance? (CO1)
 Q.22 Describe various factors that influence the decision to carry out maintenance work? (CO1)
 Q.23 Define maintenance. What are various objectives of maintenance? (CO1)
 Q.24 Define deterioration. What are vary environmental factors causing deterioration of a building? (CO2)
 Q.25 What is the use of plastics in building construction. Describe the common defects observed in plastics? (CO2)
 Q.26 What are factors to be ascertained during investigation if defects in a structure? (CO3)
 Q.27 What are components of specialized kit used in investigation of defects? (CO3)
 Q.28 What are the main causes of efflorescence in structure? (CO4)

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- Q.29 What are the various causes of inward bulging of walls of a basement? (CO4)
 Q.30 What are various defects in boundary wall of a building due to deterioration in building. Also write their causes? (CO4)
 Q.31 What are the basic properties of good repair material? (CO5)
 Q.32 What are the various advantages of curing compounds? (CO5)
 Q.33 Write the various characteristics of ideal waterproofing system? (CO6)
 Q.34 What are the various remedial measures for removal of efflorescence in a building? (CO6)
 Q.35 Write the various functions and properties of a sealant? (CO6)

SECTION-D

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

- Q.36 a) What are various human factors which cause deterioration of building? (CO2)
 b) What are objectives of investigation of defects in building investigation of defects in building investigation? (CO3)
 Q.37 What are the various methods of crack repair in concrete explain them briefly? (CO6)
 Q.38 What are the various methods adopted for controlling corrosion in reinforcement. Explain them briefly? (CO6)

(**Note:** Course outcome/CO is for office use only)

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