

FIFTH SEMESTER DIPLOMA EXAMINATION IN CIVIL ENGINEERING—
MARCH, 2014

BUILDING MAINTENANCE AND SERVICES

[Time : 3 hours

(Maximum marks : 100)

Marks

PART—A

(Maximum marks : 10)

I Answer the following questions in one or two sentences. Each question carries 2 marks.

1. What is the effect of sulphate attack on concrete ?
2. What are the causes of structural cracks in buildings ?
3. State maintenance of the buildings.
4. Name two methods adopted for cleaning small sewers.
5. Where does use pressure relief valves ? (5×2=10)

PART—B

(Maximum marks : 30)

II Answer *any five* of the following questions. Each question carries 6 marks.

1. Explain effect of frost on concrete.
2. Explain acid attack on concrete.
3. How does repair hairline cracks developed in the roof slab by grouting ?
4. What are the requirements of a good damp proofing material ?
5. Name any six methods to control the corrosion of steel reinforcement.
6. State : (i) Syphonic action (ii) Antisyphonic action.
7. Explain air conditioner and name its types. (5×6=30)

PART—C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each question carries 15 marks.)

UNIT—I

III Explain the methods controlling sulphate attack. 15

OR

IV Explain the effect of W/C ratio on durability of concrete. 15

UNIT—II

V What are the principal causes of development of cracks in buildings ? 15

OR

VI State preventive measures to be taken against non-structural cracks and structural cracks. 15

UNIT—III

VII Explain the causes of damp wall. 15

OR

VIII Explain permanent remedies to damp wall. 15

UNIT—IV

IX (a) What are the requirements of joints in pipe ? 7

(b) Describe any four joints in practice. 8

OR

X (a) Explain advantages and disadvantages of G.I. pipes. 7

(b) Explain sanitary fittings used in building drainage system. 8

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