

B TECH

(SEM-III) THEORY EXAMINATION 2018-19
BUILDING MATERIALS & CONSTRUCTION

Time: 3 Hours

Total Marks: 70

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief.

2 x 7 = 14

- What is meant by term P.V.C.N.?
- What is terra-cotta?
- For exterior works, the turpentine should be taken in minimum quantity. Why?
- Differentiate between escalator and lifts.
- What are the factors which affects the choice of flooring material?
- Define string.
- What are the fibrous plaster boards?

SECTION B

2. Attempt any *three* of the following:

7 x 3 = 21

- Name the various types stones which are used for building works and give brief the specifications for a good building stones.
- What is cement paints? What are the advantages of cement paints and what are precautions to be taken to avoid defects of the cement paints?
- Briefly describe the construction of terrazzo flooring.
- What are the difference damp-proofing and water proofing? Describe the various methods of damp-proofing.
- How will you prevent the cracks and leaks in the building? Also explain the process of repairing the cracks and leaks.

SECTION C

3. Attempt any *one* part of the following:

7 x 1 = 7

- What is pug mill? How does it help in the manufacturing the bricks? Describe the different processes of moulding of bricks.
- Why is seasoning of timber necessary? Why should timbers be preserved? State various methods of preservation of timbers.

4. Attempt any *one* part of the following:

7 x 1 = 7

- What are plastics and how are they classified? List the commonly used thermoplastic plastics and briefly describe polyvinyl chloride.
- Explain the difference between wrought iron, steel and cast iron. What are the distinguishing features of mild steel? Why is it easy to make cast iron castings?

5. Attempt any *one* part of the following:

7 x 1 = 7

- What are the different types of brick masonry? List out the types of bonds in brick work. Write the difference between modular bricks and traditional bricks.
- What are the various components of building with their basic requirements? What are the important factors considered in planning of a residential building?

6. Attempt any *one* part of the following:

7 x 1 = 7

- (a) What are the functions of a ventilator? How is it different from a window? Draw details of a ventilator combined with a window.
- (b) What are lintels? Explain the classification of lintels with neat sketches.

7. Attempt any *one* part of the following:

7 x 1 = 7

- (a) What are traps? Explain the various types of traps commonly used.
- (b) Discuss the essential requirements of air conditioning. Explain the difference between comfort air conditioning and industrial air conditioning.