

Question Paper

Exam Date & Time: 25-Apr-2018 (09:30 AM - 12:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

INTERNATIONAL CENTRE FOR APPLIED SCIENCES

II SEMESTER B.Sc (APPLIED SCIENCES)

END - SEMESTER THEORY EXAMINATIONS APRIL - 2018

DATE: 25 APRIL 2018

TIME: 9:30 AM TO 12:30 PM

Building Science and Tech. [ICE 121]

Marks: 100

Duration: 180 mins.

Answer 5 out of 8 questions.

- 1) What is cement? Explain its main four ingredients. (8)
 - A)
 - B) What are aggregates? Write note on their classification. (6)
 - C) Explain Decay and Preservation of timber. (6)
- 2) What is concrete and how it is made? Explain workability of concrete and the factors affecting workability. (8)
 - A)
 - B) Compare steel roof truss and timber roof truss. (6)
 - C) Explain briefly the defects in painting. (6)
- 3) Explain any four general tests conducted on cement with their significance. (8)
 - A)
 - B) Explain (i) High Strength Concrete (ii) Roller Compacted Concrete. (6)
 - C) Explain (i) Shoring (ii) Lean to roof (6)
- 4) Explain in detail the four ingredients of paint. (8)
 - A)
 - B) Write a note on refractory bricks and its uses. (6)
 - C) Explain (i) Calcination (ii) Slaking of lime. (6)
- 5) Write a note on stones used in building construction with their qualities and classification. (8)
 - A)
 - B) Explain the general tests conducted on bricks with their significance. (6)
 - C) Explain (i) Polymerization of plastics (ii) Fiber Reinforced Plastic (FRP) (6)
- 6) Write a note on mortar with its classification and uses. (8)

- A)
B) Explain (i) Normal Consistency of cement (ii) Hydration of cement (iii) Flash & Fire point (6)
C) Write a note on glass with its types and uses. (6)
- 7) Write a note on admixtures used in concrete. (8)
A)
B) Give the detailed classification of bricks used for construction. (6)
C) Explain the terms (i) Fat lime (ii) Quick lime (iii) Poor lime. (6)
- 8) What is a brick? Give any six qualities of a good brick. (8)
A)
B) Write a note on Gypsum with its properties and uses. (6)
C) Explain (i) Shotcrete (ii) Mix design (iii) Damp Proofing (6)

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