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## MANIPAL UNIVERSITY

## FIRST SEMESTER B. ARCH. DEGREE EXAMINATION - FEBRUARY 2016

## SUBJECT: ARC 107 – BUILDING MATERIALS (2014 SCHEME)

Monday, February 15, 2016

Time: 10:00 – 13:00 Hrs. Max. Marks: 50

- Supplement with sketches wherever necessary.
- 1A. What are the advantages of timber construction?

(5 marks)

1B. Briefly explain any two artificial methods of seasoning of timber?

 $(2\frac{1}{2} + 2\frac{1}{2} = 5 \text{ marks})$ 

2A. Briefly explain the manufacturing process of cement.

(5marks)

2B. What are the properties and uses of lime?

 $(2\frac{1}{2} + 2\frac{1}{2} = 5 \text{ marks})$ 

3A. What are the causes for deterioration of the stones? What are the uses of stones in building construction?

 $(2\frac{1}{2}+2\frac{1}{2}=5 \text{ marks})$ 

3B. List down the classification of rocks. Explain the physical properties and chemical composition of rocks.

(1+2+2 = 5 marks)

4A. What are refractory materials? Explain their classification along with uses.

(1+2+2 = 5 marks)

4B. What are the constituents (composition) of glass?

(5 marks)

5A. What are FRPs? What are the advantages and disadvantages of FRPs?

(1+2+2 = 5 marks)

5B. Write about PVCs and their advantages and disadvantages.

(1+2+2 = 5 marks)

6A. What are the properties and uses of Cast Iron and Pig Iron?

 $(2\frac{1}{2} + 2\frac{1}{2} = 5 \text{ marks})$ 

6B. What are the properties and forms of aluminum?

 $(2\frac{1}{2} + 2\frac{1}{2} = 5 \text{ marks})$