

USN

--	--	--	--	--	--	--	--	--	--

14ARC1.2

**First Semester B.Arch. Degree Examination, June/July 2017**  
**Materials and Methods in Building Construction – I**

Time: 4 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, choosing one full question from each module.**

**Module – 1**

- 1 a. Enlist the components of building and explain each in detail with the help of sketches. (10 Marks)
- b. Explain the properties and Application of bricks in building industry. (10 Marks)
- 2 a. Explain any two materials with its application in building industry (BRICK, STONE, and GLASS). (10 Marks)
- b. Show the following with various sign conventions  
 i) Glass window ii) Wood in section iii) Sand in section iv) Aggregate. (10 Marks)

**Module – 2**

- 3 Draw plan, elevation and view of 1 brick thick masonry wall, in English Bond. Considering 2 mt's length of 5 courses (L-) scale 1:10. (20 Marks)
- 4 Draw sketches of any four types of stone wall and Arches. (20 Marks)

**Module – 3**

- 5 Explain detail, definitions, composition properties in uses of the following:  
 a. Solid clay block b. Treated concrete block  
 c. Glass block d. Hollow concrete block. (20 Marks)
- 6 Explain the management process, properties and uses of  
 a. Fly ash blocks b. Solid concrete block. (20 Marks)

**Module – 4**

- 7 Draw plan, elevation and view of load bearing stone wall, using 1:10 scale. (20 Marks)
- 8 Write short notes on :  
 a. Hard wood, soft wood and its uses (10 Marks)  
 b. 5 defects in timber. (10 Marks)

**Module – 5**

- 9 Draw a flush door of size 1.2m×2.1m, showing plan, elevation and section, scale 1:10 one joinery detail. (20 Marks)
- 10 Draw to 1:10 scale casement window partially glazed and paneled  
 Size – 1.5m × 1.8 mts ht, Wall - .230mts  
 PLAN, ELEVATION and section  
 1 enlarged details  
 1 joinery detail. (20 Marks)

\* \* \* \* \*

1. Any student using mobile phones, calculators, etc. during the examination will be treated as a malpractitioner.  
 2. Any revealing of identification, appeal to evaluator and/or questions written etc. will be treated as malpractices.  
 3. Any student using mobile phones, calculators, etc. during the examination will be treated as a malpractitioner.