PAPER ID-310871

Subject Code: RAR102

Roll No: | | | | | | | | | | | | | |

B ARCH

(SEM-I) THEORY EXAMINATION 2020-21

CONSTRUCTION & MATERIAL-I

Time: 3 Hours ***Total Marks: 50***

Note: Attempt all Sections. Assume any missing data. Read instructions carefully, attempt accordingly.

SECTION – A

Q1) Attempt any ***Five*** of the following with neat sketches. No marks will be given if explained without sketches. **(5X2=10)**

a) Beveled Closer
b) Balustrade
c) Ventilator
d) Railing
e) Queen closer
f) Plinth
g) Staircase
h) Bat

SECTION – B

Q2) Attempt any ***five*** questions: **(5x5=25)**

a) What classes of bricks are available in the market? Explain how they are different from each other?
b) During the construction where you find the following been used? **(Any Two)**
   i. Brick Tiles ii) Coping iii) Cement iv) Quick Lime.
c) Sketch 230Thk brick wall Pier also give consecutive courses of the same. Is brick pier a structural element? Explain where we can use them.
d) List down the names of four main companies in India making cement with main ingredient as Lime. Also explain its making process.
e) Among all the bonds you had studied which one you suggest being constructing at house in Gomti-Nagar area (Lucknow – Uttar Pradesh) also give the reason for the same. Give Merits and Demerits also?
f) What is workability of cement mortar? What are precautions to be taken while making of Cement mortar?
g) List Down all the clay products which are currently been employed in Building Industry? Explain in brief any two of them?
h) Why lintel and sill are so important? Explain with help of neat sketches?

SECTION – C

Q3) Attempt any ***two*** questions. **(2X7.5=15)**

a) Make a section of wall showing from foundation to Parapet for 230thk brick wall. (scale 1:10) Assume slab width as 150mm.
b) With the help of any special bond construct a 230thk wall having Height 3000 mm. Give All the plans and Section for the same. (scale 1: 10)
c) A 230thk wall is to be constructed in IIM at Lucknow. The height of wall is 3000mm and length of wall is 2500mm. Which type of bond you will use and why? Given Plan, Elevation, and section for the same (scale 1:10).
d) A brick jail is to be constructed in a house situated at Mansarover Garden- Jaipur. The space where is brick jail is to constructed is 3100 x 3100. Give Plan, Section, and elevation of the same (Scale 1:10).