



RM-7007

B. Arch. - III (Sem. VI) Examination

May / June - 2010

BMC - VI (AR - 603)

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दर्शायेव निशानीवाणी विगतो उत्तरवही पर अवश्य लपनी.
 Fillup strictly the details of signs on your answer book.

Seat No. :

Name of the Examination :

Name of the Subject :

Subject Code No. : Section No. (1, 2,.....):

Student's Signature

- (2) Figures to the **right** indicate full marks.
- (3) Support your answers with neat sketches.

Q-1 Fill up.

10

1. SMB stands for _____ and has _____ as its main ingredient.
2. Fine concrete blocks have _____ instead of soil in SMBs
3. _____ type of mud construction for low height structures is good for circular/curved walls.
4. _____ type of mud construction can easily cope with two storey houses.
5. Wattle and daub is especially useful in _____ prone areas, since only replaceable plaster gets washed off.
6. _____ plans with uniformly distributed mass and vertical members can ensure minimum torsion during an Earthquake.
7. A simple way of making walls behave well during earthquake shaking is by making them act together as a _____ along with the roof at the top and with the foundation at the bottom.
8. Earthquake resistant connections between the walls can be achieved by (a) ensuring good interlocking of the masonry courses at the _____, and (b) employing _____ at various levels.

Q-2

10

(a) How do Architectural features like overall size, shape, and geometry affect buildings during earthquakes?

Q-2 What are the different elements of Green Buildings? Discuss with the example of

10

(b) studio exercise.

OR

RM-7007]

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[Contd...

Q-2 What is the significance of Indoor air quality in different building types. How can
(b) you ensure better Indoor Air Quality (IAQ) by utilizing proper building materials? 10

Q-3 Suggest appropriate building technology and material choice for cost effective and
(a) eco friendly shelters for urban areas in the western geo climatic zone of India. 10

(b) Short notes (any two) : 10

- (1) Industrial wastes for building industry.
- (2) Adbode construction method.
- (3) Bamboo application for walls and roofing.

Q-4 Fill up: 10

1. A structural element capable of spanning a horizontal gap in the manner of a beam but extended laterally is known as _____.
2. Geodesic domes need to be _____ instead of heavy foundations for their bases.
3. The B.B.C.C laid for flooring should be in the ratio of _____ CSK
4. Cellular concrete is a type of _____ concrete.
5. Sub structure comprise of _____.
6. Fly ash is the byproduct of _____ industry.
7. A joint between structural elements or components allowing no relative rotation where they meet is known as _____.
8. _____ is a thin sheet like structural element either flat or singly curved or doubly curved and acting wholly in tension.
9. Coir boards have _____ as their raw material.
10. _____ is an example of material efficient brick bonds.

Q-5 Explain the term "Building Systems"? What components make a building system
(a) stable and complete? 10

Q-5 Explain Different types of roofs as component of the building system with
(b) sketches'? 10

OR

Q-5 Explain leaves as a structural member of tree? Discuss the Ribbed and Cellular
(b) pattern of leaves as used in roofs and slabs of buildings with help of sketches. 10

Q-6 How does the shape of catenaries' help in carrying loads? Explain Catenary cable
(a) tension structure as used in construction of Buckingham Palace ticket cabin along with the salient energy saving mechanisms used. 10

Q-6 Attempt any two: 10

- (b)
1. Shoring
 2. Materials used in metal framed system
 3. Pre cast waffle slabs for roofs
 4. Underpinning