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RM-6415

B. Arch. II (Sem. IV) Examination

May / June – 2010

Passive Solar Architecture

(Elective)

Time : 2 Hours] [Total Marks : 50

Instruction :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ B. Arch. 2 (Sem. 4)

Name of the Subject :

☛ Passive Solar Architecture (Elective)

☛Subject Code No. : 6 4 1 5 ☛Section No. (1, 2,.....) : Nil

Seat No. :

Student's Signature

(2) Figures to the **right** indicate full marks.

(3) Neat sketches or illustrations shall carry more credentials.

Q1. a. True or False (10)

1. Time lag for heat transfer in stone wall is less than brick wall
2. South Slope gets more Radiation
3. Lower Wind Velocity Towards Crest of Windward Side
4. Presence of Vegetation raises humidity level
5. South- West side is the windward side for Surat.
6. Solarium is used for cooling the interiors of a house.
7. More the surface area more is the heat gain
8. Water has excellent heat storage capacity
9. Light & smooth surface reflects heat
10. More the thickness greater the storage capacity and time lag for heat transfer.

Q1. b. What do you understand by Passive Solar techniques? (4)

Q2. a. Explain the role of Orientation in Passive Solar Architecture. (6)

OR

Q2. a. Explain the role of vegetation in Passive Solar Architecture.

Q2. b. Explain the significance of roof in reducing heat gain. (4)

Q2. c What do you understand by 'Evaporative Cooling' (4)

Q3. a. Explain Solarium in detail. (4)

Q3. b. Explain with sketches the functioning of Earth Air tunnel (6)

OR

Q3. b. Explain various advance passive cooling techniques in detail

Q 4. Write Short Notes (Any two) (12)

1. Role of Water body in PSA
2. Solar Chimney
3. Trombe Wall
4. Fenestration
5. Texture & Colour
6. Building Envelop
