



SF-7607

B. Arch. - IV (Sem. - VIII) Examination

May/June - 2011

AR - 806(A) : Energy Efficient Architecture

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

नीचे दर्शायेख निशानीवाणी विगतो उत्तरवही पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. ARCH. - 4 (SEM. - 8)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="AR - 806(A) : ENERGY EFFICIENT ARCHITECTURE"/>	<input type="text"/>
Subject Code No. : <input type="text" value="7"/> <input type="text" value="6"/> <input type="text" value="0"/> <input type="text" value="7"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="Nil"/>	
Student's Signature	

- (2) Figures to the right indicate full marks.
- (3) Illustrating your answer through sketches, along with write-up is essential.

1 Fill in the blanks :

10

- (a) The _____ method can be employed for treating the organic solid waste.
- (b) In Hot-dry climates, the indoor air velocity increases if the outlets are _____ than the inlets.
- (c) Ideally, a window AC unit should either be placed with its back-side facing the _____ or _____.
- (d) Among all non-renewable sources of energy, the maximum used source is from _____.
- (e) A _____ in a wind turbine mechanism, ensures a smooth output of electrical power in-spite of wind-speed variations.
- (f) _____ gas is primarily responsible for greenhouse effect.
- (g) The highest consumption of electrical energy in a residence is for either _____ or _____.
- (h) A CFL can save upto _____ % of electricity and lasts up to _____ times more than an ordinary incandescent light bulb.

- 2** Which naturally available energy sources are you aware of? **10**
Write in brief about any one such energy, illustrating how it could be tapped, stored and used .
- 3** Explain with sketches, any two climates in brief, showing how they affect the form, orientation and planning of a human shelter : **10**
(a) Hot-Dry Climate
(b) Hot-Humid Climate
(c) Composite Climate
- 4** List Energy Efficient construction materials used in Auroville, which are locally produced to be used in buildings. Explain any 2 materials and their use in detail, using sketches. **10**

OR

- 4** How can radiant energy from sun be cut down on horizontal and vertical surfaces of a building ? Explain with sketches. **10**
- 5** Name the building that your group studied this semester and briefly explain the energy efficient features of the same building along with sketches or diagrams. **10**
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