

AV – 2952

Sixth Semester B. Arch. (CGS) Examination

CLIMATE RESPONSIVE ARCHITECTURE

Paper – 06 FEAR 05

(USC – 10052)

P. Pages : 2

Time : Three Hours]

[Max. Marks : 80

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- Note :** (1) All questions carry marks as indicated.
(2) Question No. **Five** is compulsory.
(3) Due credit will be given to neatness and adequate dimensions.
(4) Illustrate your answer wherever necessary with the help of neat sketches.
(5) Use pen of Blue/Black ink/refill only for writing the answer book.

1. (a) Define climate responsive Architecture.
Explain its role in day-to-day life in Architecture. 10
- (b) Explain the terms conduction, radiation, convection and evaporation with the help of neat sketches. 10

OR

2. (a) Explain with neat sketches Sun-Earth relationship and its impact on built forms and built surfaces. 10
- (b) Explain Human comfort that can be achieved by thermal balance and clothing pattern alongwith its effect on body. 10
3. (a) Explain in detail body's heat loss and heat gain with neat sketches. 10
- (b) Why there is marginal distance (setback) provided while constructing a building ? Elaborate your answer with the help of neat sketches. 10

OR

4. (a) What is shading devices ? Give its types. 10
- (b) Why there is a necessity of Cross Ventilation and Large Openings on North facing in building ? Explain. 10

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P.T.O.

5. What is the role of court-yard in residential building ? Elaborate your answer with the help of sketches and court-yard house plan. 20
6. Answer any **Four** from the following :—
- (a) Clothing Pattern and its effect on body.
 - (b) Dry bulb temperature and wet bulb temperature.
 - (c) Stack effect.
 - (d) Role of Cavity wall with sketches.
 - (e) Characteristics of hot and dry climate.
 - (f) Green house effect.
 - (g) Solar chart.
 - (h) Helio don.
 - (i) Cup Anemometer. 20

OR

7. Explain the types of ventilation systems available in market i.e. Natural, mechanical and hybrid elaborate your answer with the help of neat sketches. 20

