



**DAU-161001010505**

Seat No. \_\_\_\_\_

**B. Arch. (Sem. V) Examination**

**May - 2022**

**Environmental Science & Services - III**

Time : 2 Hours]

[Total Marks : 50

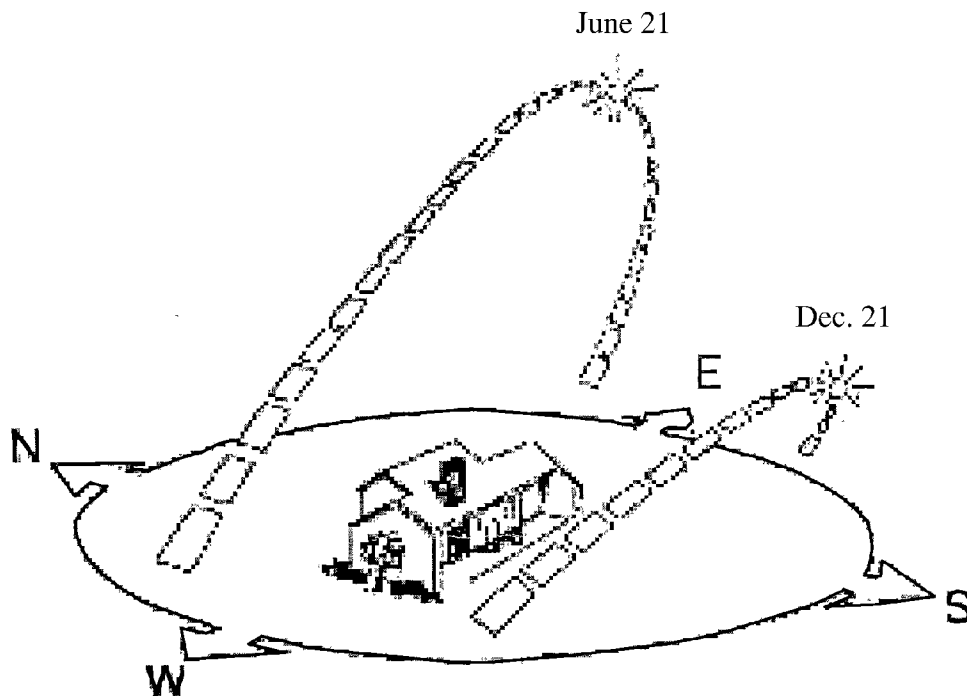
**Students Taking This Examination Do Keep in Mind the Following Notes:**

- (1) Question 1 is compulsory to answer.
- (2) Understand the question asked and maximum marks for it and then answer accordingly
- (3) Draw apt diagrams or drawings as you deem appropriate for any of the questions
- (4) Do attach (staple) with your answer book(s) this question paper's page numbers 2 for question number 5 given as a separate page or on the back of this side.

- 1 What are the prerequisites and code of behaviour for a good site visit? What can a good site visit teach an architect? In what ways what an architect learns from a site visit help her/him design a building and its site better. According to you, mention one good example of a building and site design (together) that represents this "better". 15
  
- 2 Write brief notes on these words/terms (any six): 15
  - (a) "Site"
  - (b) Contour
  - (c) Visual Quality Experience
  - (d) Watershed
  - (e) Water Spreading Slopes
  - (f) "Landscaping"
  - (g) Ian McHarg
  - (h) Michael Laurie.

**OR**

- 2 (a) In what different ways a coloured Google Earth image can be useful to an architect? What do shades of greens and sepias (browns) represent and how can these be useful in making good site planning decisions? 15
- (b) What are Landform, Land Cover, and Land Use? How can a Google Earth image help us identify these features?
- 3 Rajkot, almost in the middle of the Saurashtra peninsula is in a dry arid bio-climatic region (rainfall of about 650mm / 25" or lower). As students of IPSA, you know the climatic data of this city. The topography is rugged and undulating due to the underlying sandstone formations and the resulting soil type clayey loam to clayey Using all this information, the sun-path image given below, and your general knowledge and common sense, address the following items / queries: 20



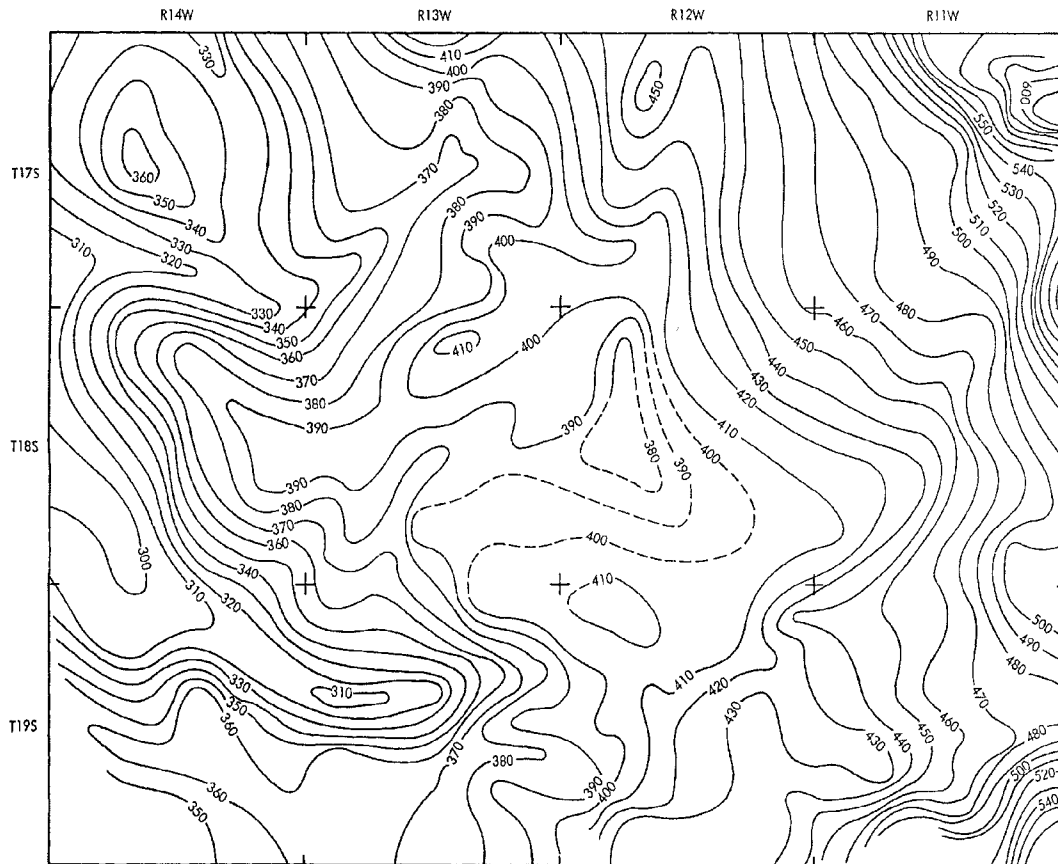
IMPORTANT : Write your exam/roll number on this page and Do attach this page with your answer book before leaving the exam room.

- (a) Add few apt landscape elements (not just trees) around the house in the above sun-path illustration and give reasons for their placement.
- (b) What types of plants are more suitable and advisable to plant here?
- (c) What are environmental values and concerns should be addressed while designing outdoor places in Rajkot area?
- (d) As an architect, what lessons you remember from this subject during this semester while you design buildings in Rajkot area?

**OR**

**3** On this page, answer and/or draw the following questions **20** using the contour plan given below :

- (a) What is the contour interval of the contour plan **2**  
given below?
- (b) Distinctly show and label (as needed) **10**
  - (i) HPs and LPs
  - (ii) Major Ridges, and Channels
  - (iii) Elevation belts of 150 meters for lower most elevations and higher most elevations
  - (iv) West facing aspects (assume North on the top)
  - (v) Areas with the steepest slopes
  - (vi) water gathering slopes along one of the channels.
- (c) Show and label areas / with high and low suitability **4**  
for human activities / development Give your reasons for choosing these areas.
- (d) What major lesson did you learn as an architect? **4**



Source <https://socratic.org/questions/how-do-contour-lines-show-hills-and-depressions> Not to Scale

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