



M-8193

Seat No. _____

B. Arch. (Sem. VI) Examination
May / June - 2018
Environmental Science & Services - 4

Time : **3** Hours]

[Total Marks : **160**

SECTION - I : LANDSCAPE

Answer the following questions.

- 1** Define ecosystem and explain the pyramid whose resultant **10**
is ecosystem.

OR

- 1** What defines Indian Landscape ? Give an example and **10**
explain the same.

- 2** True or False : **20**

- (1) Land is a biotic component.
- (2) Any change in the surface water system will have an impact on the soil structure.
- (3) Change in the structure of the landform will not affect its function.
- (4) Slope is the ratio of run : rise
- (5) Every living system has patterns and processes, except vegetation.
- (6) Topography reveals the structure of land.
- (7) Landscape is a derivative of city boundaries.
- (8) Survival is dependent on resources that are limited.
- (9) Qanat system is major component in French Gardens.
- (10) Spanish gardens only occur on huge open grounds.

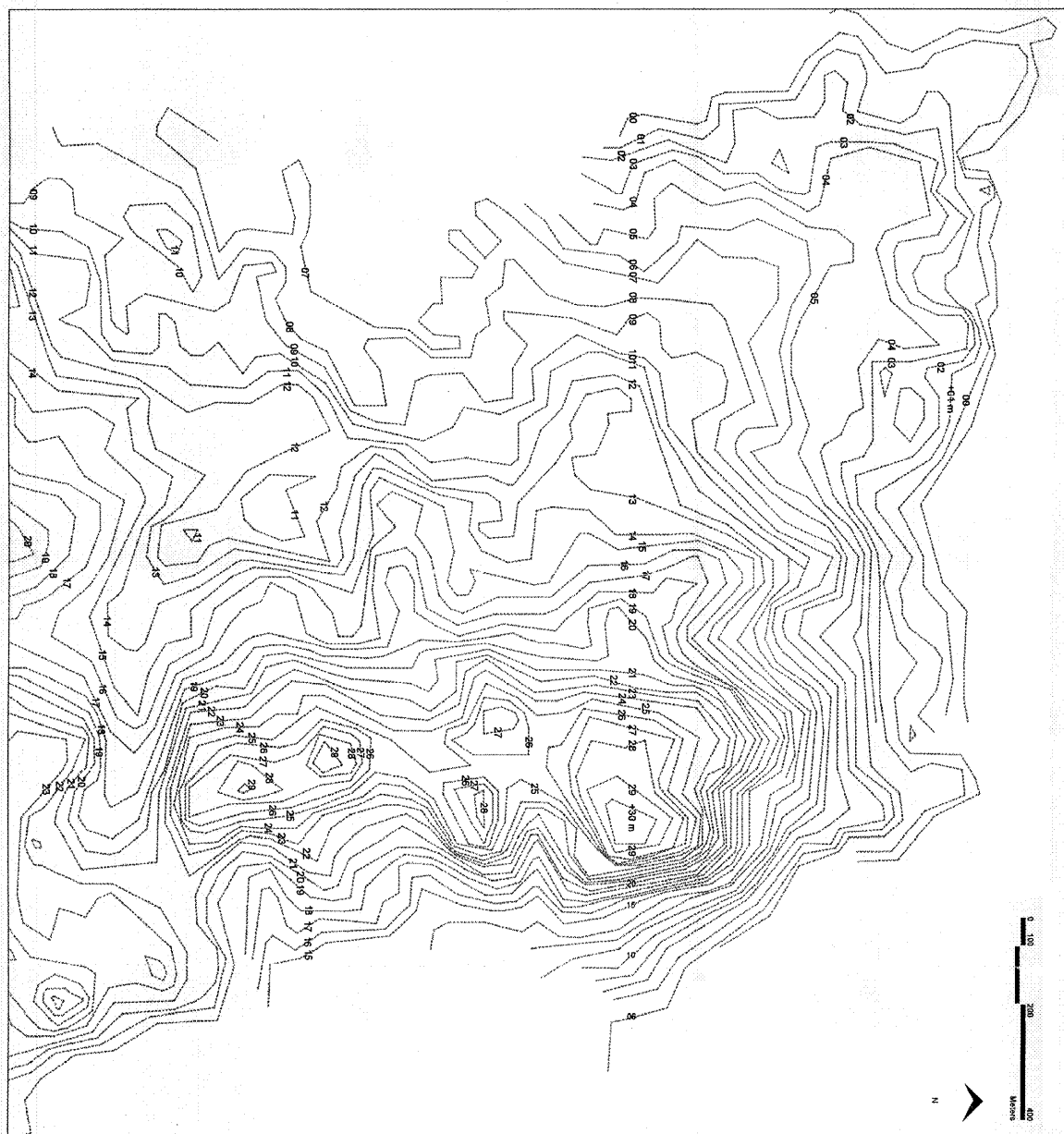
- 3** Mark and make maps for Elevation, Ridges, Valleys from **25**
the given set of contours. Provide definitions for each of
them : Contour, Elevation, Ridge and Valley.

4 Explain either a Western or Eastern garden type of your choice with Plans, Sections/Elevations and Sketches. 20

5 How site level - micro scale design decisions may affect at 5 macro scale in a region, explain with examples.

OR

5 Write about a tree of your choice along with its classification, habit, fruiting and flowering season, distribution and local name. 5



SECTION - II : HVAC

Any **two** of the following main questions are to be attempted

- 1** Short notes (any **4**) with proper sketches, if required : **40**
- (a) Full form of HVAC.
 - (b) What is a conditioned Air ?
 - (c) Explain Natural supply and Natural exhaust mechanism.
 - (d) Explain Natural supply and Mechanical exhaust mechanism.
 - (e) Explain Mechanical supply and Natural exhaust mechanism.
 - (f) Explain Mechanical supply and Mechanical exhaust mechanism.
- 2** Short notes (any **4**) with proper sketches, if required : **40**
- (a) Explain practical application of Mechanical supply and natural exhaust for Fire stairs with sketches.
 - (b) Define - Latent heat, Sensible heat and Super heat.
 - (c) What is the effect of Atmospheric pressure on Boiling point of water ?
 - (d) What is Refrigeration ?
 - (e) What are Refrigerants ?
 - (f) Name 3 refrigerants used.
- 3** Explain refrigeration cycle in Air conditioning system **40**
with supportive sketches.