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SEAT No. _____

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SARDAR PATEL UNIVERSITY
T.Y. B.Sc. (6th SEMESTER) EXAMINATION
Monday, 1st April, 2019
10.00 AM to 01:00 PM
Environmental Science
US06CENV04 Oceanography and Remote Sensing

Total Marks: 70

Q.1. —Select the correct answer and write it in the answer sheet (10)

1. Only ____% of surface water is in liquid form on the Earth
(a) 0.6 (b) 0.8 (c) 1.0 (d) 1.2
2. _____ is an underwater mountain range
(a) Continental Slope (b) mid-oceanic ridge (c) Guyot (d) Trench
3. The highest tide in the world occurs in the _____
(a) Bay of Fundi (b) Phang Nga Bay (c) Paradise Bay (d) Bay of Kotor
4. Flow rate of moisture from the atmosphere as precipitation is _____ days
(a) 8.0 (b) 8.2 (c) 8.4 (d) 8.6
5. Hydraulic Conductivity, symbolically is represented as _____
(a) H (b) C (c) R (d) K
6. _____ region of spectrum is detectable by human eye
(a) Infrared (b) Visible (c) Ultraviolet (d) Microwave
7. Dominant factors for controlling leaf reflectance are present in the region _____ μm
(a) 0.10-0.21 (b) 0.21- 0.35 (c) 0.35 – 2.6 (d) 2.6 – 4.3
8. Data captured by sensor in digital form is termed as _____
(a) quantumgraph (b) seismograph (c) toposheet (d) image
9. Raster data cannot give _____ of an area
(a) place (b) grid cells (c) location (d) none of above
10. Soil mapping is helpful to understand _____
(a) Organic Matter (b) Soil Color (c) Soil texture (d) All of above

(1)

(P.T.O.)

Q.2. Answer the following in brief (Any Ten)

(20)

1. Why is Earth known as blue planet?
2. Discuss in brief about Continental Slope
3. Write in brief about Guyot
4. Discuss in brief applications of hydrology
5. Write a short note on Runoff and Groundwater
6. What is hydraulic conductivity?
7. Define the term "Remote Sensing"
8. What is atmospheric window?
9. Write in brief about types of sensors
10. Explain- How remote sensing helps in geology?
11. Draw a labeled process flowchart of CAPE methodology
12. Discuss data models of GIS

- Q.3 (a) Give a detailed account on Ocean Nomenclature (05)**
(b) Discuss in brief Deep Sea Plain (05)

OR

- Q.3 (a) Explain in detail about Tides (05)**
(b) Write a short note on Continental Margin (05)

- Q.4 (a) Explain Precipitation as an element of Hydrology (05)**
(b) Write a note on hydrological cycle with labeled diagram (05)

OR

- Q.4 (a) Discuss Darcy's Law in detail (05)**
(b) Write a short note on Transpiration (05)

- Q.5 (a) Explain spectral characteristics of vegetation (06)**
(b) What is Data Acquisition? (04)

OR

- Q.5 (a) Write a note on Indian Imaging Systems (06)**
(b) Give an account on Spectral Signature (04)

- Q.6 Discuss in detail land use/land cover mapping with visual interpretation (10)**

OR

- Q.6 Write a detailed note on application of remote sensing in hydrology (10)**

— X —
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