

SEAT No. \_\_\_\_\_

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SARDAR PATEL UNIVERSITY  
T. Y. B.Sc. (5<sup>th</sup> SEMESTER)  
2020

SATURDAY, 26<sup>th</sup> DECEMBER 2020  
02:00 pm to 04:00 pm

US05CENV22- GEOLOGICAL SCIENCE AND OCEANOGRAPHY

TOTAL MARKS: 70

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

1. Difference between high and low elevation is referred to as \_\_\_\_\_  
(a) Changes in tension (b) Changes in relief  
(c) Both of above (d) None of above
2. \_\_\_\_\_ property is likely to be most useful in identifying a mineral.  
(a) Color (b) Lusture (c) Hardness (d) Chemical composition
3. \_\_\_\_\_ of the following mineral is hardest according to Moh's scale.  
(a) Quartz (b) Calcite (c) Fluorite (d) Gypsum
4. \_\_\_\_\_ instrument is used to measure the intensity of earthquake.  
(a) Reflectometer (b) Seismometer (c) Nephelometer (d) Diatometer
5. Cyclone is called as \_\_\_\_\_ in Australia.  
(a) Hurricane (b) Typhoons (c) Taifu (d) Willy willy
6. A flood can vary in \_\_\_\_\_.  
(a) Size (b) Speed of water flow (c) Duration (d) All above
7. \_\_\_\_\_ % of freshwater has in total global water  
(a) 5.5 (b) 4.5 (c) 2.5 (d) 3.5
8. \_\_\_\_\_ is zone of ocean floor that separates thin oceanic crust from thick continental crust  
(a) Continental shelf (b) Continental margin (c) Trench (d) Guyot
9. Typical seawater freezes at around \_\_\_\_\_ °C at atmospheric pressure  
(a) -1.9 (b) -2.9 (c) -3.9 (d) -4.9
10. \_\_\_\_\_ is defined as oxygen levels below 2 mg/L  
(a) Medóxia (b) Hyperoxia (c) Hypoxenia (d) Hypoxia

**Q.2. Answer the following True or False (08)**

1. In order to identify a mineral, it is necessary to determine its chemical composition.
2. All minerals have same streak color.
3. Contours are line of equal pressure zone.
4. A very viscous magma tends to be less explosive.
5. Semi-diurnal tides are the most common tidal pattern
6. There are four main types of corals
7. Energy requires to change temperature of seawater by a fixed amount is called as heat capacity
8. Density of warmer waters increases as much as the density of colder waters

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[P.T.O.]

**Q.3 Answer the following in brief (Any Ten)**

(20)

1. Define Geomorphology.
2. Write a short note on hardness of minerals.
3. What are drainage patterns? Enlist different types of drainage patterns.
4. Write in short about various volcanic materials.
5. What are different types of Flood? Explain.
6. Write a short note on effects of drought.
7. What is continental shelf?
8. Write in brief about Coral reefs.
9. Explain types of tides based on the sun, the moon, and the earth's positions.
10. Write in brief about surface tension of seawater.
11. What is Insolation?
12. Give a short note on the energy balance.

**Q.4 Answer the following in detail (Any four)**

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1. Write a detailed note on endogenic geomorphic process.
2. Explain Calcium cycle in details with suitable diagram.
3. Explain in detail about causes of earthquake.
4. Give a detailed note on anatomy of cyclone.
5. Discuss in detail about distribution of world land and water bodies with appropriate diagram.
6. Write a detail note on types of Estuaries.
7. Give detail account on temperature as a physical property of seawater.
8. Explain detail about SOFAR channel.

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