

# P. P. SAVANI UNIVERSITY

Second Semester of B.Sc. Examination

Dec.-Jan.-2021

SSES1110-Physical Environment

27.12.2021, Monday

Time: 09:00 a.m. to 11:30p.m.

Maximum Marks: 60

## Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

## Section-I (Total Marks - 30)

### Q.1 Short Questions

[10]

#### 1.1 Objectives

[05]

- 1.1a Which of the following is an example of NOT Biological Environment?
- A Water -
  - B Flora
  - C Fauna
  - D Human
- 1.1b The circle that divides the day from night is known as \_\_\_\_
- A Circle of hallucination
  - B Circle of Extraction
  - C Circle of illumination
  - D Circle of intensity
- 1.1c Which of the following is an NOT Jovian Planets?
- A Mars
  - B Jupiter
  - C Neptune
  - D Uranus
- 1.1d As per Kepler's first law, the path of any object in an orbit follows the shape of \_\_\_\_ with the orbited body at one of the foci.
- A Circle
  - B Ellipse
  - C Square
  - D Rectangle
- 1.1e In Newton's law of Gravitation, what is the value of G?
- A  $6.67 * 10^{-11}$
  - B  $6.67 * 10^{-12}$
  - C  $6.67 * 10^{-13}$
  - D  $6.67 * 10^{-14}$
- 1.1f Due to Coriolis effect on Earth, the object tends to deflect moving object to left in \_\_\_\_ hemisphere
- A Northern
  - B Southern
  - C Western

D Eastern

1.1g The inner core of earth is made up of \_\_\_\_ element.

- A Iron and Nickel
- B Copper and Nickel
- C Iron and Copper
- D Iron and Zinc

1.1h Full form of mT will be \_\_\_\_\_ in terms of Air masses

- A Maritime Tendrils Air masses
- B Maritime Tropical Air masses
- C Marine Tendrils Air masses
- D Marine Tropical Air masses

1.1i \_\_\_\_ cloud is like thin white sheet gives sun and moon their haloes.

- A Cirrus
- B cirrocumulus
- C Cumulus
- D Cirrostratus

1.1j \_\_\_\_ layer has ozonosphere.

- A Troposphere
- B Stratosphere
- C Exosphere
- D Ionosphere

1.2 Answer the Following

[05]

1.2a The amount of Carbon dioxide by volume in atmosphere is 28 %. True/False

1.2b \_\_\_\_ gas is present in the largest amount in the atmosphere.

1.2c Mercury is a terrestrial planet. True/False

1.2d Define rotation and revolution of a planet.

1.2e Air is an example of biotic environment. True/False

Q.2 Short Notes (Attempt any two)

[06]

A Write a note on Tangent Galvanometer.

B Explain Newton's Law of Gravitation.

C Write a note on classification of Environment.

Q.3 Explain in detail (Attempt any two)

[14]

A Write a note on types of clouds with a neat sketch.

B Explain Kepler's law.

C Explain Solar energy Budget.



Section-II (Total Marks - 30)

Q.1 Short Questions

[10]

1.1 Objectives

[05]

1.1a \_\_\_\_\_ % of total outgoing heat radiation by earth system in Solar Energy budget

- A 51
- B 61
- C 71
- D 81

1.1b On date \_\_\_\_\_ the earth is nearest to sun.

- A 3rd January
- B 13th January
- C 3rd July
- D 4th July

1.1c Air moves from \_\_\_\_\_ pressure region to \_\_\_\_\_ pressure region.

- A High, High
- B Low, Low
- C High, Low
- D Low, High

1.1d As we move upwards, the amount of air \_\_\_\_\_

- A Increases
- B Decreases
- C Remains constant
- D None

1.1e Forms of Precipitation are of \_\_\_\_\_ types.

- A 1
- B 2
- C 3
- D 4

1.1f \_\_\_\_\_ Ecosystem do not have trees or shrubs.

- A Estuary
- B Swamps
- C Salt Marshes
- D Mangrove

1.1g Most suitable temperature for Coral Reef Ecosystem is \_\_\_\_\_ °C

- A 24
- B 18
- C 10
- D 4

1.1h \_\_\_\_\_ is a shrub that grows in coastal saline water.

- A Estuary
- B Swamps
- C Salt Marshes
- D Mangrove

1.1i \_\_\_\_ Zone is very nutrient rich.

- A Intertidal
- B Pelagic
- C Benthic
- D Abyssal

1.1j Salinity at the ocean is \_\_\_\_ ppt

- A 0-5
- B 5-25
- C >25
- D None of the above

1.2 Answer the Following

[05]

1.2a Full form of cP.

1.2b Full form of PPT.

1.2c Pelagic zone is the bottom zone of the ocean. True/False

1.2d Fresh water covers 98% of the earth's coverage. True/False

1.2e Thermosphere is further divided into which \_\_\_\_ layers.

Q.2 Short Notes (Attempt any two)

[06]

A Write a note on Intertidal Zone.

B Mention the ecological and economical services provided by Coral Reef Ecosystem.

C Write a note on Estuary.

Q.3 Explain in detail (Attempt any two)

[14]

A Write a note on Forms of Precipitation.

B Write a note on Air masses

C Write a note on Abyssal zone with characteristics of their animals.