



### Lesson 3 Motions of the Earth

#### SOLUTIONS:

#### EXERCISES

**1. Answer the following questions in a word or a sentence :**

**a) How long does the earth take to complete one rotation ?**

Ans. The earth takes 24 hours to complete one rotation.

**b) Why does the sun seem to move from east to west ?**

Ans. Due to rotation of the earth from west to east.

**c) What is an ellipse ?**

Ans. The movement of the earth around the sun is not circular and rather oval in shape. Such a shape is called an ellipse.

**2. Answer the questions in about 30 words each :**

**a) What are the two motions of earth ?**

Ans. The two motions of earth are rotation and revolution. Rotation means spinning of earth on its axis whereas revolution means the movement of the earth around the sun.

**b) What is a leap-year ?**

Ans. When the month of February has 29 days instead of 28 days once in every 4 years and that particular year has 366 days which is known as leap year.

**c) What is midnight sun ?**

Ans. In Norway, the sun never sets in the region and we can see the sun even at midnight as there is continuous daylight in the north pole and it is known as midnight sun.

**d) What are equinoxes ?**

Ans. On March 21 and September 23, the day and night are of equal length all over the world i.e. 12 hours of days and 12 hours of night. So, these two days are called equinoxes.

**3. Choose the correct answer :**

**i) In a year Manipur enjoys the longest daytime on**

- A) March    **B) June 21**    C) September    D) December 22

Ans: B) June 21

**ii) Christmas is celebrated in summer in**

- A) India    B) South Korea    **C) Australia**    D) France

Ans: C) Australia

**iii) Change of season is caused due to the earth's**

- A) Rotation    **B) Revolution**    C) Shape    D) Gravitation

Ans: B) Revolution

**4. Make correct pairs :**

- |                                  |                  |
|----------------------------------|------------------|
| A) Rotation of the earth         | V) Season        |
| B) Vernal Equinox                | W) June 21       |
| C) Inclination of the earth axis | X) December 22   |
| D) Summer Solstice               | Y) March 21      |
| E) Winter Solstice               | Z) Day and Night |

Ans. a) - (Z)    d) - (W)

b) - (Y)    e) - (E)

c) - (V)



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