# **Satellites**

## A. Choose the correct answer:

### 1. What is the primary purpose of artificial satellites?

- a) To explore ocean depths
- b) To observe celestial bodies
- c) To assist in communication, navigation, and weather monitoring
- d) To replace natural satellites

#### 2. Which of the following is an example of a natural satellite?

- a) Moon
- b) Hubble Space Telescope
- c) GPS Satellite
- d) Sputnik

#### 3. What type of orbit is commonly used for weather satellites?

- a) Geostationary Orbit
- b) Low Earth Orbit
- c) Polar Orbit
- d) Elliptical Orbit

#### **B. Fill in the Blanks:**

- 2. The first artificial satellite launched into space was \_\_\_\_\_\_ by the Soviet Union in 1957.
- Satellites used for navigation, such as GPS, help determine \_\_\_\_\_\_ and \_\_\_\_\_ of objects on Earth.

#### C. Case Study:

In recent years, satellite technology has revolutionized communication, navigation, and weather forecasting. A team of scientists studied the impact of satellite-based weather prediction in different regions. They analyzed data from three areas:

- **Region A** had access to advanced weather satellites and could predict cyclones accurately, reducing disaster damage.
- **Region B** relied on traditional methods and often faced unexpected weather changes, affecting agriculture.

• **Region C** used a mix of satellite data and ground observations but lacked realtime monitoring systems.

After studying these regions, scientists concluded that satellite data significantly improved disaster preparedness, agricultural planning, and climate monitoring.

#### **Questions & Answers:**

- 1. What was the main objective of this study on satellites?
- 2. Why did Region A have better disaster management compared to Region B?
- 3. How does satellite technology help in agricultural planning?
- 4. What improvements could be made to Region C's weather monitoring system?

# **D. Short Answer Questions:**

- 1. What are the different types of satellites and their functions?
- 2. How do communication satellites help in global connectivity?
- 3. What is the difference between geostationary and polar orbit satellites?

#### E. Long Answer Questions:

- 1. Explain how satellites are used in different fields like communication, navigation, and weather forecasting.
- 2. Describe the working and importance of GPS satellites in modern life.
- 3. Discuss how advancements in satellite technology have improved disaster management and environmental monitoring.