

PERIODIC TEST - 3

(Based on Units 6–7)

Time: 1 Hour

Maximum Marks: 50

Let's Read

Read the following passage carefully and answer the questions that follow.

The Big Bang theory is the prevailing cosmological model which describes the early development of the universe. According to this theory, the Big Bang occurred approximately 13.7 billion years ago, which is considered the age of the universe. Initially, the universe was extremely hot and dense. It began expanding rapidly. After the initial expansion, the universe cooled enough to allow energy to be converted into many subatomic particles including protons, neutrons and electrons. Though simple atomic nuclei formed within the first three minutes after the Big Bang occurred, thousands of years passed before the first electrically neutral atoms formed.

The majority of atoms that were produced by the Big Bang are hydrogen, helium and a small amount of lithium. Giant clouds of these elements merged through gravity to form stars and galaxies. The heavier elements combined either within stars or during supernovae.

The core ideas of the Big Bang—the expansion, the early hot state, the formation of light elements and the formation of galaxies, are derived from many observations of the past and present states of the universe. In the past, the galaxies were closer together but the distance between the galaxies has increased today.

The Big Bang theory does not provide any explanation for the initial conditions of the universe. It describes and explains the general evolution of the universe going forward from that point onwards.

A. Tick (✓) the correct option.

(4)

1. The Big Bang occurred approximately
(a) 13.7 billion years ago. ☐ (b) 13.7 million years ago. ☐
(c) 12 billion years ago. ☐ (d) 10 million years ago. ☐
2. The Big Bang theory describes
(a) the formation of the moon. ☐
(b) the formation of the earth. ☐
(c) the formation of the sun. ☐
(d) the early development of the universe. ☐
3. In the past, the galaxies were closer together but
(a) they have all merged now. ☐
(b) the distance between them has increased today ☐
(c) now they are close to the sun in our solar system. ☐
(d) now they have shrunk in size. ☐
4. The Big Bang theory does not provide any explanation for
(a) the evolution of the universe. ☐
(b) the initial conditions of the universe. ☐

(c) the birth of the universe.

(d) the age of the universe.

☐
☐

B. Fill in the blanks with suitable words.

(3)

1. In the beginning, the universe was extremely _____ and _____. It began _____ at a rapid rate.
2. Within _____ minutes after the Big Bang, simple _____ formed but it was after thousands of years that the first _____ were formed.

C. Answer the following questions briefly.

(4)

1. What is considered to be the age of the universe?

2. What happened when the universe cooled after the initial expansion?

3. What atoms were produced after the Big Bang? How were stars and galaxies formed from those atoms?

4. What are the core ideas of the Big Bang?

Let's Write

- D. Your friend from Amritsar is interested in seeking admission in your school. But before he/she does so, he/she wants to know about the special features of your school. Write to your friend giving him a comprehensive picture of the quality of education your school provides.**

(10)

- E. Write a paragraph on 'Peace begins in the mind'.**

(5)

Grammar Spotlight

- F. Complete the following dialogue using appropriate modals.**

(2)

Teacher: _____ you solve this question?

Student: I _____, if you help me when I make a mistake.

- G. Fill in the blanks using appropriate conjunctions.**

(3)

1. We can go to the library _____ the bookshop.
2. She wanted to go to the party _____ she was unwell.
3. In Jaipur, we visited a lot of palaces _____ forts.

H. Identify the types of phrases highlighted in the following sentences. (3)

1. He went up **very cautiously**.
2. **An honest man** is respected everywhere.
3. The woman **in the green** sari is the chief guest .

I. Report the following dialogue appropriately. (6)

Conductor : Where do you want to go?

Passenger : I want to go to the main market of Rohini.

Conductor : Do you have a change for 500-rupee note?

Passenger : Sorry, I don't.

Literature

J. Answer the following questions briefly. (10)

1. Describe the appearance of Miss Beam.
2. What did the author learn from the bandaged girl?
3. How do countries try to solve controversies?
4. Chesterfield is quite happy at receiving a good report of his son from his two teachers, yet he sets another target to achieve before him. What is the target and why?
5. Why did Chesterfield decide to write this letter?