

Chapter: 19

Q.1 A) Choose the correct alternative and rewrite the sentence (2)

- 1) is the end stage of the star having initial mass between 8 and 25 times the mass of the Sun.
a. white dwarf b. neutron star c. black hole d. none of these
- 2) Light takes to reach us from the moon.
a. 1 sec b. 8 minutes c. 4.2 years d. none of these

Q.2 B) Solve the following questions. (3)

1) State True or False (1)

- 1) The Sun will pass through the supergiant stage during its evolution.

2) Find the odd one out (1)

- 1) Sun, Alpha Centauri, Sirius, Andromeda

3) Name the following (1)

The properties of Sun have not change because of me.

Q.2 Solve the following questions. (Any two) (4)

1) Write Short Notes

Write note on Neutron star.

2) Distinguish between

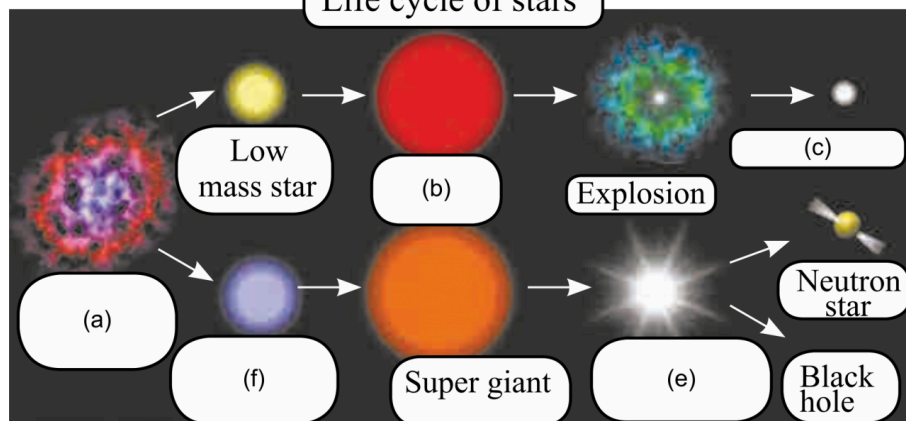
Stars and Planets.

3) Give scientific reasons

The properties of the Sun have remained unchanged for 4.5 billion years.

Q.3 Answer the following in detail (Any TWO) (6)

1) Life cycle of stars



2) Which types of stars end their life as a neutron star?

3) Answer the following based on the given picture.



i. What was first seen in 1054 AD?

ii. Which part of the world was this first seen?

iii. How many years did the light emitted from this above incident take to reach the earth? (7500years, 6500years)

Q.4 Solve the following questions. (Any one)

(5)

1) Black holes are very strange objects. They are formed when very massive stars come to an end of their lifetime, in a supernova event. Everything that remains of the star is crushed down into an incredibly small, dense object. Close to the object, gravity is so strong that nothing can get away, not even light. This means that we cannot see anything within that region-hence the name black hole.

However, it is possible to see the effects of a black hole on the stars and materials around it. Gas, dust and other stars close to a black hole can be sucked in by gravity- a bit like water going down a plughole. As materials swirls around the black hole, it crashes into each other, producing heat and light. Because this happens away from the black hole, the light can escape so that we can observe the activity.

i. How are black holes formed?

ii. Why is the name 'black hole' given?

iii. What can be pulled or sucked in by the gravity of black hole?

iv. Why are we able to see the effects of black hole on the stars around it?

2) Explain three end stages of star.