

Question 1

After reaching its peak luminosity in hours or days, a nova declines in brightness over a period of a few _____ before returning to its pre-explosion luminosity.

Answer: <https://biology-forums.com/index.php?topic=395189>

Question 2

If the Sun were replaced by a one solar mass black hole:

- A) all terrestrial planets would fall in immediately.
- B) our clocks would all stop.
- C) life here would be unchanged.
- D) we would immediately escape into deep space, driven out by its radiation.
- E) we would still orbit it in a period of one year.

Answer: <https://biology-forums.com/index.php?topic=395247>

Question 3

Astronomical alignments in antiquity on solstice and equinox sunrises and sunsets show us these builders had developed a _____ for farming.

Answer: <https://biology-forums.com/index.php?topic=394001>

Question 4

The observed slowing of a clock in the vicinity of a black hole is a prediction of:

- A) General relativity.
- B) Special relativity.
- C) the Roche Limit.
- D) the Cosmological Principle.
- E) Stellar nucleosynthesis.

Answer: <https://biology-forums.com/index.php?topic=395246>

Question 5

_____ is the scientific study of the distribution of electromagnetic waves by energy and how these patterns are created in atoms and molecules.

Answer: <https://biology-forums.com/index.php?topic=394110>

Question 6

Redshift measurements of the visible afterglow of a gamma-ray burst show that these objects are:

- A) in the Milky Way Galaxy.
- B) in the Local Group.
- C) in the solar neighborhood.
- D) billions of light-years away.
- E) at the most extreme observable distances.

Answer: <https://biology-forums.com/index.php?topic=395231>

Question 7

The oldest known features of Mercury's surface formed:

- A) about 3.9-3.2 billion years ago.
- B) about 4.6 billion years ago.
- C) just under 4 billion years ago.
- D) less than a billion years ago.

Answer: <https://biology-forums.com/index.php?topic=394346>

Question 8

The time between equinoxes on Uranus is about:

- A) 7 hours.
- B) 21 years.
- C) 42 years.
- D) 8 hours.
- E) 84 years.

Answer: <https://biology-forums.com/index.php?topic=394662>

Question 9

Comparing the densities of the Moon and Mercury, we find:

- A) that density increases as we go outward from the Sun.
- B) the Moon is slightly denser than Mercury.
- C) similar in surface appearance, they are also similar in density.
- D) both are much denser than our water-covered planet.
- E) the Moon's is similar to Earth's crust, while Mercury's is similar to the entire Earth.

Answer: <https://biology-forums.com/index.php?topic=394337>

Question 10

Most galaxies in the Local Group are:

- A) larger spirals than either the Milky Way or M-31 in Andromeda.
- B) brown dwarfs, with even more dust than our own Galaxy.
- C) small irregulars similar to the Magellanic Clouds.
- D) dwarf ellipticals, similar to the companions of M-31.
- E) dwarf spirals.

Answer: <https://biology-forums.com/index.php?topic=395353>

Question 11

What happens when an interstellar cloud fragment shrinks?

- A) Temperature rises.
- B) Density rises.
- C) Pressure rises.
- D) It first becomes opaque.
- E) All of the above.

Answer: <https://biology-forums.com/index.php?topic=395009>

Question 12

The critical evidence for cosmic acceleration in 1998 came from two teams of astronomers, both observing:

- A) type I supernovae.
- B) type II supernovae.
- C) hypernovae.
- D) ages of globular clusters.
- E) gamma ray bursts.

Answer: <https://biology-forums.com/index.php?topic=395465>

Question 13

A large gas cloud in the interstellar medium that contains several type O and B stars would appear to us as:

- A) a dark patch against a bright background.
- B) an emission nebula.
- C) a dark nebula.
- D) a reflection nebula.
- E) bright blue.

Answer: <https://biology-forums.com/index.php?topic=394969>

Question 14

The Kuiper Belt is:

- A) where all comets come from.
- B) the name given to icy bodies found between Mars and Jupiter.
- C) another name for the Asteroid Belt.
- D) the name given to icy bodies found between Jupiter and Saturn.
- E) a band of icy planetesimals found beyond Neptune's orbit.

Answer: <https://biology-forums.com/index.php?topic=394250>

Question 15

In what range of masses are most stars found?

- A) .01 to 100 solar masses
- B) .1 to 2 solar masses
- C) .1 to 100 solar masses
- D) 1 to 3 solar masses
- E) Stars can have any mass.

Answer: <https://biology-forums.com/index.php?topic=394928>

Question 16

Mars' magnetic field is so weak because:

- A) it spins much slower than Earth does.
- B) its core contains less iron than our own.

- C) it core may no longer be molten.
D) Both B and C are probable.
E) All of the above are correct.

Answer: <https://biology-forums.com/index.php?topic=394503>

Question 17

When mass is accreted into a black hole, how much total mass-energy can be radiated away?

- A) .08% B) .007% C) 50% D) 1.4% E) 20%

Answer: <https://biology-forums.com/index.php?topic=395341>

Question 18

During a protostar's T Tauri phase, it:

- A) begins a period of reduced activity.
B) expands dramatically.
C) changes its spin direction.
D) lies on the main sequence.
E) may develop very strong winds.

Answer: <https://biology-forums.com/index.php?topic=395010>

Question 19

For finding the distance to M31, Hubble relied upon:

- A) type I supernova in its core.
B) planetary nebulae near its core.
C) type II supernova in its spiral arms.
D) RR Lyrae stars in its globular clusters.
E) Cepheid variables in its spiral arms.

Answer: <https://biology-forums.com/index.php?topic=395358>

Question 20

What are Dactyl, Gaspra, Mathilde, Eros, and Ida?

- A) newly discovered small moons of Saturn
B) newly discovered retrograde moons of Jupiter
C) four asteroids that have been explored by spacecraft
D) the four largest main belt asteroids, and the first to be discovered
E) the first four bodies found in the Kuiper Belt after Pluto

Answer: <https://biology-forums.com/index.php?topic=394710>