ONTARIO EARTH AND SPACE SCIENCE, GRADE 12, UNIVERSITY PREPARATION (SES4U) · UNIT A · 25 QUESTIONS

Astronomy — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **The geocentric model placed Earth in the middle of the universe, while the heliocentric model places the Sun at the**

A Moon orbit

B Outside

C Centre

D Edge

Understand It with Pulse | Flag a mistake

2 **Retrograde motion of Mars is best explained by Earth overtaking Mars in its**

A Atmosphere

B Orbit around the Sun

C Magnetic field

D Rotation

Understand It with Pulse | Flag a mistake

3 **Kepler first law states planetary orbits are**

A Straight lines

B Ellipses with the Sun at one focus

C Circles

D Parabolas

Understand It with Pulse | Flag a mistake

4 **Kepler third law relates a planets orbital period to its**

A Average distance from the Sun

B Temperature

C Mass

D Number of moons

Understand It with Pulse | Flag a mistake

5 **A planet moves fastest in its orbit when it is closest to the Sun, at**

A Aphelion

B Equinox

C Solstice

D Perihelion

Understand It with Pulse | Flag a mistake

6 **The astronomical unit is defined as the average distance from Earth to the**

- A Mars
- B Moon
- C Sun
- D Jupiter

Understand It with Pulse | Flag a mistake

7 **A light year is a unit of**

- A Distance
- B Brightness
- C Speed
- D Time

Understand It with Pulse | Flag a mistake

8 **Parallax is used to measure distances to nearby stars by observing their apparent shift from opposite sides of Earth**

- A Moon
- B Orbit
- C Rotation
- D Atmosphere

Understand It with Pulse | Flag a mistake

9 **Stellar spectra show absorption lines that reveal a stars**

- A Age only
- B Distance only
- C Mass only
- D Composition and temperature

Understand It with Pulse | Flag a mistake

10 **The Hertzsprung Russell diagram plots stars by luminosity against**

- A Temperature or spectral class
- B Age
- C Distance
- D Mass

Understand It with Pulse | Flag a mistake

11 **Most stars lie on the main sequence, where they fuse hydrogen into**

- A Oxygen
- B Carbon
- C Iron
- D Helium

Understand It with Pulse | Flag a mistake

12 **A star like the Sun will end its life as a**

A Supernova only

B Neutron star

C Black hole

D White dwarf

Understand It with Pulse | Flag a mistake

13 **A massive star can end in a supernova, leaving behind a neutron star or a**

A Black hole

B Planet

C White dwarf

D Red giant

Understand It with Pulse | Flag a mistake

14 **A black hole is a region where gravity is so strong that not even light can**

A Reflect

B Enter

C Slow down

D Escape

Understand It with Pulse | Flag a mistake

15 **The Big Bang theory is supported by the expansion of the universe shown by galactic**

A Rotation

B Redshift

C Brightness only

D Magnetism

Understand It with Pulse | Flag a mistake

16 **Cosmic microwave background radiation is evidence for a hot dense early**

A Star

B Earth

C Galaxy

D Universe

Understand It with Pulse | Flag a mistake

17 **The observable universe is limited by the age of the universe and the speed of**

A Rotation

B Light

C Expansion

D Sound

Understand It with Pulse | Flag a mistake

18 **A galaxy is a large system of stars, gas, dust, and dark matter held together by**

A Gravity

B Friction

C Electricity

D Magnetism

Understand It with Pulse | Flag a mistake

19 **The Milky Way is classified as a**

A Dwarf galaxy only

B Irregular galaxy only

C Spiral galaxy

D Elliptical galaxy

Understand It with Pulse | Flag a mistake

20 **Dark matter is inferred from gravitational effects, such as galaxy rotation curves that do not match visible**

A Light

B Temperature

C Age

D Mass

Understand It with Pulse | Flag a mistake

21 **A constellation is a pattern of stars as seen from Earth, but its stars are generally not**

A Visible

B In the same galaxy

C Bright

D Close together in space

Understand It with Pulse | Flag a mistake

22 **The Sun appears to move across the sky mainly because Earth**

A Tilts yearly

B Rotates on its axis

C Moves toward the Sun

D Orbits the Sun daily

Understand It with Pulse | Flag a mistake

23 **Seasons occur mainly because Earth axis is tilted relative to its**

A Magnetic field

B Rotation speed

C Orbital plane

D Moon

Understand It with Pulse | Flag a mistake

24 **A lunar eclipse occurs when Earth shadow falls on the**

A Moon

B Sun

C Venus

D Mars

Understand It with Pulse | Flag a mistake

25 **A solar eclipse occurs when the Moon shadow falls on**

A Earth

B Venus

C The Sun itself

D Mars

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. C
2. B
3. B
4. A
5. D
6. C
7. A
8. B
9. D
10. A
11. D
12. D
13. A
14. D
15. B
16. D
17. B
18. A
19. C
20. D
21. D
22. B
23. C
24. A
25. A

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