

Intermediate Science Bee (Sample)

Dear Contestant,

Please note that the following Intermediate Science Bee questions are for guidance only. The actual questions in the contest may vary. Syllabus is the basis on which the question papers are set. These sample questions are the same from last year. We urge you to study and find the answers by yourself.

1. Which of these biomes carries the most species?

- A. Grassland
- B. Tropical rainforest
- C. Temperate deciduous forest
- D. Coniferous Forest
- E. Tundra

2. Earthquake activity or magnitude is measured using an equipment called ____

- A. Quakegraph
- B. Seismograph
- C. Thermograph
- D. Quakometer
- E. Seismotron

3. Rocks formed from the cooling and crystallization of hot magma are known as __

- A. Sedimentary
- B. Igneous
- C. Metamorphic
- D. Prehistoric rocks

E. Pressurized rocks

4. Feathery fair-weather clouds high in sky are called _____

A. Cirrus

B. Cumulus

C. Stratus

D. Cumulonimbus

E. Sirius

5. Which form of energy is collected by the solar panels?

A. Wind

B. Sound

C. Magnetic

D. Electric

E. Light

6. These are imaginary horizontal lines across the globe.

- A. Latitudes
- B. Longitudes
- C. Prime meridian
- D. International Date Line
- E. Equator

7. Coldest planet in the Solar System

- A. Jupiter
- B. Saturn
- C. Venus
- D. Neptune
- E. Uranus

8. Which of these is a carnivorous plant that can feed on insects or other small animals?

- A. Rafflesia
- B. Giant Sequoia
- C. Pitcher plant
- D. Mega lily
- E. Saguaro Cactus

9. Which of these is a marsupial?

- A. Capybara
- B. Koala bear
- C. Dodo

D. Shrew

E. Gila monster

10. When groundwater is heated by hot rocks, it can explode as showers of steam and water, called _____.

A. Mud spouts

B. Fumaroles

C. Geysers

D. Alluvium

E. Aquifers

11. The number of waves that pass a given point in one second is called the _____

- A. Amplitude
- B. Frequency
- C. Wavelength
- D. Synclines
- E. Inclines

12. Which of these is the smallest element in the body?

- A. Cell
- B. Tissue
- C. Organ System
- D. Organ
- E. Tracts

13. What do playing a guitar, banging a drum, and dropping a pebble in the water have in common?

- A. They all produce light.
- B. They all cause vibrations.
- C. They all convert heat to energy.
- D. They all need gravity to move.
- E. They all produce chemical energy

14. This tube transports food in plants.

- A. Phloem
- B. Xylem
- C. Cambium

D. Flume

E. Tubule

15. Is it advisable to dry brush a dusty CD or wash it with soapy water? Why?

A. Dry brushing dissolves dust and grime.

B. Soapy water dissolves dust and grime.

C. Dry brushing is easy to do.

D. Dry brushing cleans the CD without damaging it.

E. Soapy water damages the CD's tracks.

16. The equation relates to one of Newton's Laws of Motion. Which law of Motion does it relate to?

- A. Newton's First Law
- B. Newton's Second Law
- C. Newton's Third Law
- D. Newton's Fourth Law
- E. Newton's Fifth Law

17. Who is credited for inventing the "modern steam engine"?

- A. James Watt
- B. Thomas Edison
- C. Isaac Newton
- D. Wright brothers
- E. Henry Erickson

18. High pitched sounds have higher _____

- A. Amplitude
- B. Frequency
- C. Wavelength
- D. Loudness
- E. Decibels

19. These are parts of the female reproductive system except _____

- A. Ovary
- B. Uterus
- C. Fallopian Tubes

D. Cervix

E. Scrotum

20. The electrons in an atom are

A. Concentrated inside the nucleus of the atom

B. Equally distributed outside the nucleus

C. Distributed in shells around the nucleus

D. Distributed continuously inside and outside the nucleus

E. Concentrated inside the nucleus of the atom

21. Whales have tails called _____ that flap up and down.

A. Blow holes

B. Flukes

C. Blubber

D. Baleens

E. Denticles

22. Onions are good examples of this type of underground stems.

A. Bulbs

B. Corm

C. Rhizome

D. Stolon

E. Tuber

23. The point on its orbit when the Earth is farthest from the sun.

A. Apogee

B. Perigee

C. Aphelion

D. Perihelion

E. Azimuth

24. Human adults have _____ bones.

A. 106

B. 150

C. 206

D. 340

E. 302

25. Sam believes there might be a relationship between the number of herbivores and the number of scavengers in a grassland biome. To test this, he counts the number of herbivores and scavengers in 1000 grasslands, and makes the interesting observation that these 2 numbers follow this equation: $S = 250 + 3H$, where S = number of scavengers, and H = number of herbivores. Which of the following is not true?

- A. The number of scavengers increases as the number of herbivores increase.
- B. There is a positive correlation between the number of scavengers and herbivores.
- C. Even if there are no herbivores, there is at least 250 scavengers.
- D. The number of scavengers exceeds the number of herbivores.
- E. As the number of herbivores decrease, the number of scavengers increase.