



NATIONAL Science Bee

SAMPLE QUESTIONS FOR PRACTICE FOR INTRAMURAL EXAM and ONLINE REGIONAL QUALIFYING EXAM (ORQE)

The actual National Science Bee Intramural Exam and the Online Regional Qualifying Exam will each consist of 50 multiple choice style questions. 25 are presented here in the style and format that will be used on these two exams. 2 points are awarded for a correct response, 0 for a response left blank, and -1 points are given for an incorrect response.

1. Which astronomical body is considered a dwarf planet?
a) Mercury b) Europa c) Pluto d) Ceres
2. Which organelle is found in plants but not in humans?
a) Cell Wall b) Mitochondria c) Nucleus d) Cell Membrane
3. Which term is used to refer to a supercontinent before it broke apart into smaller segments, such as Gondwanaland?
a) Eurasia b) Patagonia c) Oceania d) Pangaea
4. Which subatomic particle has a negative charge?
a) Proton b) Electron c) Neutron d) Lithium
5. Which layer of the atmosphere does almost all of the earth's weather occur in?
a) Mesosphere b) Exosphere c) Thermosphere d) Troposphere
6. Earthquakes are most common in which of the following US States?
a) Rhode Island b) Florida c) Alaska d) Michigan
7. Which Russian chemist is known for his invention of the periodic table of the elements?
a) Andrei Sakharov b) Yuri Gagarin c) Dmitri Mendeleev d) Gregor Mendel
8. The small intestine is part of which system in the human body?
a) Integumentary b) Lymphatic c) Respiratory d) Digestive
9. Energy produced by dams such as Hoover Dam or the Grand Coulee Dam is known by which term?
a) Nuclear b) Fracking c) Hydroelectric d) Solar

10. Which element is known for being radioactive and used for weapons and power generation?
a) Neon b) Carbon c) Uranium d) Bromine
11. The widespread use of which pesticide led to a steep decline in the number of bald eagles and other birds of prey in the mid 20th century?
a) Ammonium b) DDT c) Potassium Sulfate d) Chlorofluorocarbon
12. Which division of the standard taxonomic classification system comes between class and family?
a) Phylum b) Genus c) Kingdom d) Order
13. Which is not the name of a widespread computer programming language?
a) Java b) HTML c) AltaVista d) C++
14. In trigonometry, the ratio of the side of a triangle opposite an angle over the side of a triangle adjacent to the angle is known as what?
a) Cosecant b) Sine c) Tangent d) Cosine
15. Which type of heat transfer is defined as the transfer of heat by the movement of fluids?
a) Adsorption b) Convection c) Radiation d) Conduction
16. An array taking which shape represents the binomial coefficients and is named for Blaise Pascal?
a) Square b) Circle c) Pyramid d) Triangle
17. Which process of cell division results in four haploid gametes?
a) Meiosis b) Interphase c) Mitosis d) Eukaryosis
18. Which of these planets does not have any moons?
a) Venus b) Earth c) Mars d) Jupiter
19. Which of these weather phenomena is a type of precipitation?
a) Lightning b) Chinook c) Hail d) Cirrus
20. Which is not one of the six classic simple machines identified by Renaissance scientists?
a) Inclined plane b) Lever c) Wedge d) Combustion engine
21. Which of the following would be something that an oceanographer might study?
a) Gulf Stream b) Drumlins c) Taiga d) Gibbons
22. Which element has a bicarbonate known as baking soda?
a) Magnesium b) Iron c) Sodium d) Potassium
23. Which of the following is not one of Sigmund Freud's three parts of the psychic apparatus?
a) Ego b) Id c) Superego d) Libido

24. Which two elements make up a water molecule?

- a) Copper & Boron b) Carbon & Gold c) Iron & Nickel d) Oxygen & Hydrogen

25. Which of these is a gram-negative bacteria known to cause food poisoning?

- a) Anthrax B) Streptococci c) Listeria d) E. coli