



NATIONAL Science Bee

QUESTIONS FOR 2018-2019 ONLINE REGIONAL QUALIFYING EXAM (ORQE)

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 of the following animals belongs to the class *Mammalia*?
A) Iguana B) Great White Shark C) Peregrine Falcon D) Aardvark
- _____ 2) Which part of an atom has a positive charge?
A) Orbital B) Proton C) Electron D) Neutron
- _____ 3) Which current flows along the Southeast US Coast and helps to keep Europe's climate mild?
A) El Niño B) Alaska Current C) Electric Current D) Gulf Stream
- _____ 4) Which organ of the human body contains 4 chambers, including the right atrium & left ventricle?
A) Spleen B) Brain C) Heart D) Small Intestine
- _____ 5) Which type of clouds are also known as thunderheads, and are where thunderstorms are found?
A) Cumulus B) Stratus C) Cumulonimbus D) Cirrus
- _____ 6) Which of the following is a carnivorous plant?
A) Coast redwood B) Venus flytrap C) Rhododendron D) Weeping willow
- _____ 7) Respiration occurs in which organ of the human body?
A) Lungs B) Uterus C) Ears D) Gall bladder
- _____ 8) Which element has atomic number 2 and is thus the second lightest element by atomic mass?
A) Iron B) Helium C) Uranium D) Gold
- _____ 9) Which of these elements is a liquid at room temperature?
A) Mercury B) Silver C) Nitrogen D) Carbon
- _____ 10) Which term is used to describe all of the organisms and their surrounding physical environment in a given location?
A) Recycling B) Kingdom C) Cell D) Ecosystem

- _____ 11) Which of these species can be considered an apex predator?
A) Siberian Tiger B) Blue Jay C) Monarch Butterfly D) White Oak
- _____ 12) Different forms of the same element which differ in their number of neutrons are called what?
A) Ions B) Isotopes C) Protons D) Quarks
- _____ 13) Which of these US cities can be said to have primarily a hot desert climate?
A) Phoenix B) Chicago C) Miami D) San Diego
- _____ 14) Which of the following species practices hibernation?
A) Black Bear B) Giraffe C) Bald Eagle D) Blue Whale
- _____ 15) All of the interior angles of a triangle sum to how many degrees?
A) 60 B) 90 C) 180 D) 360
- _____ 16) Which term is defined in computer science as “a process or set of rules to be followed in calculations or other problem-solving operations.”
A) ENIAC B) Computer language C) Application D) Algorithm
- _____ 17) What is an example of a triatomic molecule?
A) Ethanol B) Butane C) Glucose D) Water
- _____ 18) In physics, which simple machine consists of a beam or rod that pivots at a fulcrum?
A) Pulley B) Lever C) Steam engine D) Wedge
- _____ 19) Any natural number greater than 1 that is not divisible by any number than itself and 1 is what type of number?
A) Perfect B) Irrational C) Prime D) Imaginary
- _____ 20) Alan Turing was a pioneering scientist in which field?
A) Chemistry B) Computer Science C) Physics D) Astronomy
- _____ 21) Which element can be split in nuclear fission, and thus has applications in weapons and power generation?
A) Aluminum B) Bromine C) Lithium D) Uranium
- _____ 22) The branch of physics that studies light and its properties is known as what?
A) Mechanics B) Electromagnetism C) Optics D) Nuclear physics
- _____ 23) Amino acid residues form chains to create what biomolecules?
A) Proteins B) Carbohydrates C) Lipids D) Solvents
- _____ 24) Which genus of bacteria is often implicated in food poisoning?
A) Canis B) Salmonella C) Australopithecus D) Amoeba

- _____ 25) Which of the following is a type of mental illness?
A) Emphysema B) Schizophrenia C) Osteoporosis D) Aneurysm
- _____ 26) Which of the following is not a major classification of rock?
A) Igneous B) Sedimentary C) Metamorphic D) Mineral
- _____ 27) Which component of blood is responsible for forming clots, and thus stopping bleeding?
A) Blood plasma B) White Blood Cells C) Red Blood Cells D) Platelets
- _____ 28) Which of these planets does not have any moons?
A) Mercury B) Mars C) Jupiter D) Saturn
- _____ 29) By which process do plants convert light into energy?
A) Tropism B) Endoplasmic Reticulum C) Photosynthesis D) Krebs Cycle
- _____ 30) Which vitamin is found in high amounts in citrus fruits, and a lack of it can lead to scurvy?
A) Vitamin C B) Vitamin D C) Vitamin E D) Vitamin K
- _____ 31) Which organelle is found at the edge of an animal cell?
A) Nucleus B) Lysosome C) Cell membrane D) Vacuole
- _____ 32) Which of the following elements is one of the noble gases?
A) Xenon B) Oxygen C) Plutonium D) Hydrogen
- _____ 33) Which process refers to a type of biological interaction that is beneficial for both organisms involved?
A) Parasitism B) Predation C) Amensalism D) Mutualism
- _____ 34) Humans share the greatest share of their DNA with which of these four animals?
A) Lion B) Chimpanzee C) Gray Wolf D) Domestic Cat
- _____ 35) Hippocrates and Galen were ancient scientists best known for studying what?
A) Medicine B) Electricity C) Microbiology D) Astronomy
- _____ 36) Retreating glaciers can leave behind deposits of rock and sediment known as what?
A) Seamounts B) Tarns C) Moraines D) Exoskeletons
- _____ 37) Which of the following is an example of an arachnid?
A) Dragonfly B) Scorpion C) Oyster D) Lobster
- _____ 38) Which division in taxonomy comes between a kingdom and a class?
A) Phylum B) Order C) Genus D) Species
- _____ 39) Which layer of the atmosphere lies farthest from the surface of the earth?
A) Exosphere B) Mesosphere C) Stratosphere D) Troposphere

- _____ 40) Which is the longest bone in the human body?
A) Patella B) Femur C) Ulna D) Radius
- _____ 41) Which disease is common in certain tropical regions of Africa, but not in the USA?
A) Malaria B) Lung Cancer C) Diabetes D) Multiple Sclerosis
- _____ 42) Where would you commonly find stalagmites and stalactites?
A) In the sun B) On mountain tops C) In caves D) In atomic nuclei
- _____ 43) Which of these planets is closest to the Kuiper Belt?
A) Venus B) Earth C) Jupiter D) Neptune
- _____ 44) The diffusion of water across a semipermeable membrane is known as what?
A) Osmosis B) Respiration C) Excretion D) Hydrolysis
- _____ 45) In which of these locations is the force of gravity the strongest?
A) The Moon B) On Earth's Surface
C) The International Space Station D) Interstellar Space
- _____ 46) The earth's tectonic plates were once united in a supercontinent that is given which name?
A) Eurasia B) Neanderthal C) Pangaea D) Zealandia
- _____ 47) Which of the following is a form of precipitation?
A) Sleet B) Solar wind C) Tornado D) Tsunami
- _____ 48) Which of these tree species is most widespread throughout Northern New England?
A) Sugar Maple B) Date Palm C) Sequoia D) Baobab
- _____ 49) How many bones are there in the human body?
A) 2 B) 23 C) 206 D) 650
- _____ 50) Which of the following is a greenhouse gas that has been implicated in climate change?
A) Oxygen B) Argon C) Nitrogen D) Methane