

Science Reviewer - Set D

1. Which of the following statements is correct?
 - a. A solution is a heterogeneous mixture.
 - b. A solvent is the substance that is being dissolved.
 - c. A solute is the substance that does the dissolving.
 - d. Water is called the "universal solvent" because it is able to dissolve more substances than any other liquid.
2. Clean air is an example of a _____.
 - a. colloid
 - b. compound
 - c. solution
 - d. suspension
3. Three beakers contain a solution, a colloid, and a suspension, but you don't know which is which. In one of the beakers, particles have NOT settled at the bottom over time, and when you shine a light through it, the light scatters, like car headlights in a fog. This must be the _____.
 - a. colloid
 - b. solution
 - c. suspension
4. When you go to the beach, you notice that rough waves or swimmers can disturb the sand in the sea but it usually settles back down to the bottom. This is an example of a _____.
 - a. colloid
 - b. compound
 - c. solution
 - d. suspension
5. You can use a magnet to separate _____.
 - a. sand from gravel
 - b. sand from aluminum powder
 - c. sand from iron filings
 - d. sand from sugar

6. Water is composed of _____.
- carbon and oxygen
 - nitrogen and oxygen
 - hydrogen and oxygen
 - carbon and nitrogen
7. Extremophiles live in habitats that are intolerably hostile or even lethal to most other life-forms. These habitats include hydrothermal vents, frozen sea water, extremely acidic or basic environments, and even toxic waste. While extremophiles can come from either of the three domains of life – archaea, bacteria, and eukarya – the main group to thrive in extreme environments are the:
- archaeans
 - bacteria
 - eukaryotes
8. Salt (NaCl), water (H₂O), and carbon dioxide (CO₂) are examples of _____.
- atoms
 - elements
 - compounds
 - solids
9. Plants store sugar in the form of starch, while animals store sugar in the form of glycogen. Both starch and glycogen are examples of _____.
- carbohydrates
 - lipids
 - proteins
 - nucleic acids
10. Proteins that speed up chemical reactions are called _____.
- enzymes
 - hormones
 - collagens
 - albumin
11. Which statement is incorrect?
- There are two basic types of cells: prokaryotic cells and eukaryotic cells.
 - Prokaryotic cells do not have DNA.
 - Prokaryotic cells do not have a nucleus.
 - Eukaryotic cells have a nucleus where their DNA is stored.

12. Which organelle contains the genetic material of the cell?
- Nucleus
 - Mitochondria
 - Ribosomes
 - Rough endoplasmic reticulum
13. Which organelle is where lipids are produced?
- Smooth endoplasmic reticulum
 - Golgi apparatus
 - Lysosome
 - Nucleolus
14. _____ are small membrane-bound sacs that transport materials around the cell.
- Vesicles
 - Vacuoles
 - Centrioles
 - Chloroplasts
15. Which organelles in the plant cell are in charge of photosynthesis?
- Vesicles
 - Vacuoles
 - Centrioles
 - Chloroplasts
16. Nutrients are chemicals needed by our body that are found in food. There are five types of nutrients: carbohydrates, proteins, _____, vitamins, and minerals.
- collagen
 - rice
 - lipids
 - sugars
17. Sugars are small, simple carbohydrates that are found in foods such as rice, fruits, and milk. The simplest sugar is called _____.
- glucose
 - fructose
 - lactose
 - galactose

18. Which of these is a large, complex carbohydrate that is partly indigestible?
- a. starch
 - b. fiber
 - c. table sugar
 - d. calcium
19. Which nutrient stores energy, protects nerves, cushions internal organs, and makes up the membranes that surround cells?
- a. carbohydrates
 - b. lipids
 - c. vitamins
 - d. minerals
20. True or False – Like other nutrients, vitamins and minerals give us energy.
- a. true
 - b. false
21. The rhythmic, wave-like movement of the digestive tract is called _____.
- a. emesis
 - b. harmonic propulsion
 - c. peristalsis
 - d. traction
22. Our digestive system is basically one long tube plus a few accessory organs that release “juices” into it. This tube is called the _____.
- a. small intestine
 - b. large intestine
 - c. gastrointestinal tract
 - d. none of these
23. Which of these statements about digestive enzymes is incorrect?
- a. Protease breaks down proteins.
 - b. Lipase breaks down fats.
 - c. Carbohydratase breaks down carbohydrates.
 - d. None - all are correct.

24. What type of digestion happens in the esophagus?
- mechanical digestion
 - chemical digestion
 - both
 - neither
25. The organs of the digestive system are lined with muscles that contract, or tighten, in waves in order to push food through the system. This series of muscle contractions is called _____.
- borborygmi
 - intubation
 - peristalsis
 - cramps
26. Which organ(s) make juices that help to dissolve and digest your food?
- liver
 - pancreas
 - both
 - neither
27. What absorbs spare water and forms what isn't absorbed into lumps of waste?
- anus
 - large intestine
 - pancreas
 - gall bladder
28. Which organ system helps the most in moving the food that you eat along the digestive tract? (Aside from the nervous system, of course, which coordinates everything!)
- endocrine system
 - integumentary system
 - muscular system
 - renal system
29. _____ is the process of removing waste and excess water from the body.
- Excretion
 - Respiration
 - Condensation
 - Filtration

30. Which statement about the organs of the excretory system is incorrect?
- The lungs, which are also a part of the respiratory system, are responsible for excreting carbon dioxide in the air we breathe out.
 - The skin, which is also a part of the muscular system, excretes water, salts, and other wastes in the form of sweat.
 - The large intestine, which is also a part of the digestive system, excretes solid waste in the form of feces.
 - The kidneys, which are part of the urinary system, are responsible for excreting salts, urea, and excess water in the form of urine.
31. Our mouth and nose, as well as organs that are exposed to things coming from the outside world such as our stomach and lungs, are not lined with skin. Instead, they are lined with _____ that have special structures that fight against “invaders.”
- fur
 - scales
 - white blood cells
 - mucous membranes
32. True or False – Hydrochloric acid, which is also known as muriatic acid and is used in many household cleaning solutions, is also used by the body to protect itself against pathogens.
- true
 - false
33. True or False – A fever can help the body fight infection.
- true
 - false
34. Which of these statements about our body’s specific immune response is incorrect?
- B-cells make antigens, proteins that bind to antibodies on the outside of pathogens. This binding signals phagocytes to engulf and destroy the pathogen.
 - Killer T cells destroy body cells that are infected with pathogens. They also destroy damaged or cancerous body cells.
 - Helper T cells release chemicals that “switch on” both B cells and killer T cells so they can recognize and fight specific pathogens.
 - None - all are correct.

35. Which of the following pairings is incorrect?
- femur - long bone
 - pinkie finger - short bone
 - skull - flat bone
 - spinal column - irregular bone
36. Our bones have many roles. The following are a few of their most important functions, except _____.
- support against gravity
 - storage of certain minerals
 - making blood cells
 - none - all of these are functions of bones
37. The bone tissue that makes up the dense outer layer of bones is _____.
- bone marrow
 - compact bone
 - trabecular bone
 - ligaments
38. The smallest bone in the body is found in your _____.
- hand
 - feet
 - nose
 - ear
39. A _____ is a short band of tough connective tissue that connects bones together to form a joint.
- cartilage
 - ligament
 - tendon
 - bone marrow
40. Joints are classified based on either (1) the kind of tissue they have, or (2) how much movement they allow. The following are the types of joints based on the amount of movement allowed within the joint, except _____.
- fixed joints, also known as synarthroses or immovable joints
 - partly movable joints, also known as amphiarthroses or slightly moveable joints
 - movable joints, also known as diarthroses or freely moveable joints
 - none - all are correct

41. Our knee joints are _____.
- a. fixed joints
 - b. partly movable joints
 - c. movable joints
 - d. fibrous joints
42. The shoulder joint is a _____.
- a. ball-and-socket joint
 - b. hinge joint
 - c. pivot joint
 - d. gliding joint
43. The joints in your wrists and your ankles are examples of _____.
- a. ball-and-socket joints
 - b. hinge joints
 - c. pivot joints
 - d. gliding joints
44. The special muscle that makes up our heart is the _____. It is strong enough to pump out blood to our entire body. Although this muscle is similar in appearance to voluntary muscle because it is also striated, it is actually involuntary – you can never consciously tell your heart to stop working.
- a. skeletal muscle
 - b. smooth muscle
 - c. cardiac muscle
 - d. none of these
45. Muscles can only _____; they cannot _____. That is why, to move bones in opposite directions, they need to work in pairs.
- a. grow; atrophy
 - b. increase; decrease
 - c. go up; go down
 - d. pull; push
46. The muscle that contracts to cause the joint to straighten is called the _____.
- a. extensor
 - b. flexor
 - c. agonist
 - d. antagonist

47. When a muscle is stretched too much, it can tear. This is called a muscle _____. It is also known as a pulled muscle.
- cramp
 - sprain
 - strain
 - contusion
48. Which of the following is NOT a function of the integumentary system?
- defense against pathogens
 - elimination of waste products
 - regulation of body temperature
 - none - all are correct
49. The outermost layer of the skin is called the _____.
- dermis
 - epidermis
 - hypodermis
 - subcutis
50. The layer of skin directly under the epidermis is called the _____.
- stratum corneum
 - stratum granulosum
 - hypodermis
 - dermis
51. The nerve endings that sense touch, heat, pressure, and pain are located in the _____.
- epidermis
 - dermis
 - both
 - neither
52. The liquid part of the blood is called the _____.
- blood corpuscles
 - hematocrit
 - hemoglobin
 - plasma

53. The system that controls and coordinates the activities of the body is the _____.
- circulatory system
 - endocrine system
 - excretory system
 - nervous system
54. The division of the autonomic nervous system that produces opposing effects to the sympathetic nervous system is the _____.
- parasympathetic nervous system
 - peripheral nervous system
 - somatic nervous system
 - unsympathetic nervous system
55. The _____ receive nerve impulses from other cells.
- dendrites
 - axons
 - myelin sheath
 - nodes of Ranvier
56. Which of these statements is incorrect?
- Sensory neurons carry nerve impulses from sense organs and internal organs to the central nervous system.
 - Motor neurons carry nerve impulses from the central nervous system to organs, glands, and muscles.
 - Synapses can also be found between neurons and other types of cells, such as muscle cells.
 - None - all are correct.
57. The part of our brain that controls balance, coordination, and body position is the _____.
- cerebrum
 - cerebellum
 - brainstem
 - pons

58. The lobe of the brain most involved in processing information from your eyes is the _____.
- frontal lobe
 - parietal lobe
 - temporal lobe
 - occipital lobe
59. The part of the peripheral nervous system that carries nerve impulses to our internal organs and controls activities that are not under our control, such as digestion and sweating, is the _____.
- sensory nervous system
 - autonomic nervous system
 - somatic nervous system
 - central nervous system
60. Which organ/s filter salts, nitrogen-containing molecules, and excess water from the blood?
- kidneys
 - ureters
 - urinary bladder
 - urethra
61. Blood flows into the kidney through the _____.
- urinary artery
 - ulnar artery
 - renal artery
 - peroneal artery
62. Each of our kidneys is made up of about a million nephrons. A nephron is called the functional unit of the kidneys because it carries out the kidneys' work. Which statement about the nephron and its parts is not true?
- Each nephron is made up of two glomeruli and a tubule.
 - The glomerulus filters the blood. Its thin walls allow smaller molecules, wastes, and water to pass into the tubule.
 - As the filtered fluid moves along the tubule, the tubule returns the substances that our body still needs back to our blood and removes the waste.
 - Most of the water and other substances that are filtered through the glomeruli are returned to the blood by the tubules.

63. Which vertebrate - body covering pairing is incorrect?
- amphibians - moist, scaly skin
 - fish - scales
 - mammals - hair or fur
 - reptiles - dry, scaly skin
64. The topmost layer of the rainforest is the _____.
- canopy
 - emergent
 - understory
 - forest floor
65. The following are agents of pollination except _____.
- bees
 - butterflies
 - dogs
 - dragonflies
66. These specialized plant structures are horizontal stems that grow underground. Roots and shoots originate from their nodes. When separated, each piece is capable of producing a new plant as it grows up out of the ground.
- rhizomes
 - runners
 - suckers
 - tubers
67. In this method of propagation, a stem from one plant is cut and attached to the stump of another plant.
- cutting
 - grafting
 - layering
 - marcotting
68. The following are types of coral reef formations except _____.
- atolls
 - barrier reefs
 - bleaching reefs
 - fringing reefs

69. A place where freshwater from a river mixes with saltwater from the sea
- canopy
 - estuary
 - intertidal zone
 - tundra
70. Which of these has a negative charge?
- proton
 - electron
 - neutron
 - none of the above
71. Which of the following statements is not true about the nucleus of an atom?
- It is very dense.
 - It has an overall positive charge.
 - It contains practically all the mass of the atom.
 - The positively-charged protons in the nucleus do not repel each other because of the presence of the negatively-charged neutrons.
72. What is the direction of friction between a moving object and a surface?
- toward the direction of the object's motion
 - in the same direction as the object's motion
 - opposite to the direction of the object's motion
 - perpendicular to the direction of the object's motion
73. Oil is put on the bearing of wheels to _____.
- reduce friction
 - give the wheels more force
 - change the direction of the motion
 - increase the speed at which the wheels turn
74. The form of energy that is generated when an object vibrates is _____.
- vibrant energy
 - radiant energy
 - sound
 - light

75. The energy that is contained in fuel is an example of _____.
- radiant energy
 - chemical energy
 - mechanical energy
 - electrical energy
76. Simple machines are common in our day-to-day lives. When you chop onions for cooking, you are actually using which simple machine?
- lever
 - pulley
 - screw
 - wedge
77. There are three classes of levers, based on the position of their effort, load, and fulcrum. Which of these levers does not belong to the same class as the others?
- scissors
 - seesaw
 - tongs
 - none - all three belong to the same class of lever
78. An object immersed in water displaces a volume of water _____.
- equal to its own volume
 - less than its own volume
 - greater than its own weight
 - equal to its own weight
79. Of all the electromagnetic waves _____ have the highest energy while _____ have the lowest.
- gamma rays; radio waves
 - visible light; infrared
 - x-rays; infrared
 - microwave; radio waves
80. Which of these electromagnetic waves have the longest wavelengths?
- radio waves
 - microwaves
 - X-rays
 - gamma rays

81. Which of these electromagnetic waves have the highest frequencies?
- radio waves
 - microwaves
 - X-rays
 - gamma rays
82. Which of these statements is false?
- Gamma rays have a frequency of approximately 10 quadrillion waves per second.
 - Like X-rays, gamma rays cannot pass through bones and teeth.
 - Most gamma rays from space are absorbed by the earth's atmosphere before they can reach the surface.
 - Sources of gamma rays include stars, radioactive atoms, and nuclear explosions.
83. Matter that transmits light without scattering it is _____.
- transparent
 - translucent
 - opaque
84. Your black shirt absorbs all light while your blue jeans absorb some light and reflect the rest. You check your appearance in the mirror. Your black shirt is _____, your blue jeans are _____, and your mirror is _____.
- transparent; translucent; opaque
 - opaque; translucent; opaque
 - opaque; opaque; transparent
 - opaque; opaque; opaque
85. When are shadows formed?
- When light rays hit hard objects.
 - When light rays hit opaque objects.
 - When light rays hit translucent objects.
 - When light rays hit the transparent objects.
86. Which of the following is TRUE about force?
- Force can change the shape or size of an object.
 - Force can change only the direction of an object.
 - Force cannot change the speed of a moving object.
 - Force can change the chemical properties of objects.

87. Which of the following is NOT true about magnetic force?
- Like poles of two magnets repel each other.
 - The force of attraction is greater at the middle of a magnet.
 - Opposite poles of two magnets attract each other.
 - Magnets attract objects made up of iron, cobalt and nickel.
88. The transfer of heat by the movement of the heated parts of fluids such as liquid or gas is called _____.
- conduction
 - convection
 - radiation
 - insulation
89. Materials such as metals that allow heat to flow through easily are described as good _____.
- conductors
 - insulators
 - radiators
 - indicators
90. A circuit where the connection is not broken, enabling electricity to flow
- open circuit
 - closed circuit
 - parallel circuit
 - series circuit
91. A circuit in which, when one bulb burns out, the other bulbs will not function anymore
- AC circuit
 - DC circuit
 - parallel circuit
 - series circuit
92. The following are the three types of plate tectonic boundaries, except:
- divergent
 - convergent
 - emergent
 - transform

93. When rock masses move and change in position, the energy stored in them is released and transmitted to the surface in the form of seismic waves. This causes _____.

- a. earthquakes
- b. volcanic eruptions
- c. typhoons
- d. storm surges

94. A _____ is a series of giant waves caused by earthquakes or volcanic eruptions under the sea.

- a. storm surge
- b. tsunami
- c. seismic wave
- d. barrel

95. This is also known as the southwest monsoon and brings warm and moist air into the country.

- a. Amihan
- b. Habagat
- c. Sirocco
- d. Delubyo

96. Which brings warm and moist air into the country?

- a. hanging Amihan
- b. hanging Habagat
- c. northwest monsoon
- d. southeast monsoon

97. Which of the following statements is true?

- a. The Earth rotates on its axis once every 12 hours.
- b. The Earth rotates on its axis once every 24 hours.
- c. The Earth rotates on its axis once every 365 hours.
- d. The Earth rotates on its axis once every 365 days.

98. Which of these is the imaginary line that the Earth spins around to complete one day?

- a. axis
- b. orbit
- c. poles
- d. latitude

99. Which are the two seasons experienced in places near the equator?
- wet and dry
 - fall and spring
 - dry and spring
 - summer and winter
100. Which of the following planets has the highest average surface temperature?
- Mars
 - Venus
 - Jupiter
 - Mercury
101. Which among the four is the smallest?
- Saturn
 - Jupiter
 - Uranus
 - Neptune
102. Which is Earth's twin planet?
- Uranus
 - Mars
 - Jupiter
 - Venus
103. Which of the following statements correctly describes the inner planets?
- They are small and made of ice and gas.
 - They are large and made up mostly of gas.
 - They are large and made of gases and metal.
 - They are solid and made up of rocks and metals.
104. Term used to describe the moon when it seems to be growing
- crescent
 - gibbous
 - waning
 - waxing

105. What phase will the moon be if it is between the earth and the sun?
- full moon
 - new moon
 - first quarter
 - last quarter
106. Groups of stars that are not constellations by themselves but belong to a constellation are called _____.
- asterisms
 - galaxies
 - nebulae
 - shooting stars
107. Which of the following statements is correct?
- Smaller stars run out of fuel faster and tend to have shorter lifespans.
 - Larger stars have more fuel and tend to have longer lifespans.
 - If an exploding star is massive enough, it may form a black hole.
 - All of the above
108. _____ is the process by which humans and animals breathe out water particles through their lungs and when they perspire.
- Respiration
 - Perspiration
 - Precipitation
 - Transpiration
109. Clouds that look like puffs of cotton and are usually spotted in fair weather
- cirrus
 - cumulus
 - nimbus
 - stratus
110. This refers to the weight of force that is produced when something presses or pushes against something else.
- humidity
 - pressure
 - temperature
 - weather

111. Which of these weather instruments measures the humidity of air?
- a. anemometer
 - b. barometer
 - c. hygrometer
 - d. rain gauge
112. The kind of soil that is sticky when wet and has the finest texture is _____.
- a. clay
 - b. loam
 - c. humus
 - d. sand
113. This layer of soil is rich in humus and minerals.
- a. topsoil
 - b. subsoil
 - c. parent rock
 - d. bedrock
114. _____ is the wearing away or breaking of rocks into fragments.
- a. Erosion
 - b. Siltation
 - c. Sedimentation
 - d. Weathering
115. Contour plowing, crop rotation, and strip cropping are all strategies for preventing _____.
- a. erosion
 - b. siltation
 - c. sedimentation
 - d. weathering

ANSWER KEY

1. d	26. c	51. c	76. d	101. d
2. c	27. b	52. d	77. c	102. d
3. a	28. c	53. d	78. a	103. d
4. d	29. a	54. a	79. a	104. d
5. c	30. b	55. a	80. a	105. b
6. c	31. d	56. d	81. d	106. a
7. a	32. a	57. b	82. b	107. c
8. c	33. a	58. d	83. a	108. a
9. a	34. a	59. b	84. d	109. b
10. a	35. b	60. a	85. b	110. b
11. b	36. d	61. c	86. a	111. c
12. a	37. b	62. a	87. b	112. a
13. a	38. d	63. a	88. b	113. a
14. a	39. b	64. b	89. a	114. d
15. d	40. d	65. c	90. b	115. a
16. c	41. c	66. a	91. d	
17. a	42. a	67. b	92. c	
18. b	43. d	68. c	93. a	
19. b	44. c	69. b	94. b	
20. b	45. d	70. b	95. b	
21. c	46. a	71. d	96. b	
22. c	47. c	72. c	97. b	
23. c	48. d	73. a	98. a	
24. d	49. b	74. c	99. a	
25. c	50. d	75. b	100. b	