

Science Reviewer - Set C

1. A mixture that is formed when one substance dissolves into another is called a _____.
 - a. solute
 - b. solvent
 - c. solution
 - d. compound
2. Steel 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. You notice that in one of the beakers, particles have settled at the bottom. This must be the _____.
 - a. colloid
 - b. solution
 - c. suspension
4. This is a type of mixture where liquid or solid particles are dispersed in a gas. Examples include fog, mist, and smoke.
 - a. emulsion
 - b. aerosol
 - c. gel
 - d. foam
5. At construction sites, stones and all sorts of debris can get mixed into the sand. To get the stones out, construction workers often use which separation technique?
 - a. sieving
 - b. evaporation
 - c. decantation
 - d. distillation

6. When you dry your clothes by spinning them in the washing machine, you are using a separation technique called centrifugation. But when you dry the clothes by hanging them outside, on a clothesline, under the heat of the sun, you are using which separation technique?
- still centrifugation
 - filtration
 - evaporation
 - distillation
7. Archaea were previously thought to be bacteria but scientists have since discovered that their DNA have distinct differences. In which of these ways are bacteria and archaea different?
- The absence of a nucleus
 - The number of cells composing each organism
 - The ability to reproduce asexually
 - The presence of peptidoglycan in their cell walls
8. Which of these statements is incorrect?
- A molecule is a combination of two or more atoms.
 - A molecule that consists of more than one element is called a compound.
 - The oxygen in the air we breathe – O_2 – is a compound.
 - Carbon dioxide – CO_2 – is a compound.
9. The enzymes and antibodies in our bodies are examples of _____.
- carbohydrates
 - lipids
 - proteins
 - nucleic acids
10. The building blocks of proteins are called _____.
- amino acids
 - monosaccharides
 - fatty acids
 - nucleotides
11. Which is correct?
- Cell > organ > organelle > organ system > organism
 - Cell > tissue > organ > organ system > organism
 - Cell > organ > organ system > tissue > organism
 - Cell > organelle > organ > organ system > organism

12. The following are present in eukaryotic cells and absent in prokaryotic cells EXCEPT:
- nucleus
 - mitochondria
 - ribosomes
 - Golgi apparatus
13. Which organelle is covered with ribosomes and is involved in the processing of protein?
- Nucleus
 - Mitochondria
 - Ribosomes
 - Rough endoplasmic reticulum
14. Which organelle is in charge of producing and assembling ribosomes?
- Smooth endoplasmic reticulum
 - Golgi apparatus
 - Lysosome
 - Nucleolus
15. Photosynthesis is the process by which plant cells convert _____ into chemical energy in the form of glucose.
- hydrocarbons
 - the sun's energy
 - water and oxygen
 - nitrogen, phosphorus, and potassium
16. The number of calories in food indicates _____.
- the vitamin content in the food
 - the weight of the food per unit volume
 - the amount that can be digested from the food
 - the amount of energy that can be obtained from the food
17. Sugar and starches are _____.
- fats
 - proteins
 - minerals
 - carbohydrates

18. Complex carbohydrates are larger than simple carbohydrates like glucose. Our bodies break them down more slowly compared to simple carbohydrates. They can give us energy more steadily and for a longer period of time. This is why it is better if the carbohydrates in our food are complex carbohydrates. The following are complex carbohydrates except _____.
- starch
 - fiber
 - galactose
 - none - all are correct
19. The following are rich in protein, except _____.
- lean meat
 - banana
 - peanut butter
 - sea food
20. Most unsaturated fats are “healthy” or “good” fats. An exception to this is _____. This type of fat increases our risk of heart disease and provides no benefits to our health. Unfortunately, this is the type of fat that is commonly found in foods we normally like, such as french fries, microwave popcorn, doughnuts, and baked goods sold in stores, such as cakes and cookies.
- saturated fat
 - unsaturated fat
 - trans fat
 - none of these
21. Digestion begins in the _____.
- mouth
 - esophagus
 - stomach
 - small intestine
22. The process of breaking down food into absorbable nutrients is called _____.
- respiration
 - digestion
 - absorption
 - nutrition

23. An enzyme is a protein that speeds up chemical reactions in the body. Digestive enzymes play a huge role in which type of digestion?
- mechanical digestion
 - chemical digestion
 - both
 - neither
24. What type of digestion happens in the mouth?
- mechanical digestion
 - chemical digestion
 - both
 - neither
25. Chewing is part of _____.
- chemical digestion
 - enzymatic digestion
 - mechanical digestion
 - cellular digestion
26. Most of the work of chemical digestion takes place in the _____.
- mouth
 - small intestine
 - stomach
 - large intestine
27. The later parts of the small intestine are covered by millions of tiny projections called _____, which have blood vessels through which nutrients are absorbed.
- cilia
 - villi
 - glands
 - nodes
28. To get food into your body, your mouth needs to open. Which organ system helps with this?
- muscular system
 - nervous system
 - skeletal system
 - all of these

29. When your stomach is full, it tells your brain that you have already had enough food, and you stop eating. When your stomach and intestines are empty, they signal the brain that you need food, and so you start to feel hungry. This shows how your digestive system works together with which other system?
- lymphatic system
 - nervous system
 - respiratory system
 - urinary system
30. Which organ is part of the excretory system?
- lungs
 - skin
 - kidneys
 - all of these
31. The _____ forms a physical barrier between the body and the outside world. For this reason, it is the body's first and most important line of defense against infection.
- white blood cells
 - muscles
 - skin
 - lymph nodes
32. Lysozymes are chemicals that can kill pathogens. They are found in all of the following, except _____.
- sweat
 - tears
 - saliva
 - none - all are correct
33. There are certain kinds of white blood cells that go to areas of inflammation and "eat" pathogens, foreign particles, and dead cells. In this way they are able to help the body eliminate these unwanted "invaders." The cells that do this are called _____.
- lysozymes
 - erythrocytes
 - myocytes
 - phagocytes

34. An _____ is a molecule that the immune system identifies as foreign and responds to by forming antibodies.
- a. antibiotic
 - b. antigen
 - c. allele
 - d. amylase
35. The following are parts of the appendicular skeleton except _____.
- a. carpals
 - b. ribs
 - c. tarsals
 - d. ulna
36. How many bones does the adult human skeleton have?
- a. 164
 - b. 206
 - c. 256
 - d. 408
37. The _____ is the tough, fibrous membrane that covers and protects the outer surface of bones.
- a. periosteum
 - b. endosteum
 - c. epiphysis
 - d. bone marrow
38. Which statement is true?
- a. Bones stop growing in length during early adulthood.
 - b. Bones can continue to increase in thickness throughout life.
 - c. Both
 - d. Neither
39. A break in a bone is called a _____.
- a. sprain
 - b. strain
 - c. fracture
 - d. dislocation

40. Joints are classified based on either (1) the kind of tissue that they have, or (2) how much movement they allow. The following are the types of joints based on tissue type, except _____.
- fibrous
 - cartilaginous
 - ligamentous
 - synovial
41. Our shoulder joints are _____.
- fixed joints
 - partly movable joints
 - movable joints
 - fibrous joints
42. The type of movable joint that only allows rotating movement is the _____. An example of this is the joint between your radius and your ulna, the two bones in your forearm. Movement at this joint allows you to flip your palm over without having to move your elbow joint.
- ball-and-socket joint
 - hinge joint
 - pivot joint
 - gliding joint
43. The elbow is a _____.
- ball-and-socket joint
 - hinge joint
 - pivot joint
 - gliding joint
44. There are three different types of muscles in our body. The type of muscle found within the walls of organs and blood vessels is the _____. They work automatically without us being aware of them and so they are also known as involuntary muscles.
- skeletal muscle
 - smooth muscle
 - cardiac muscle
 - none of these

45. When muscles contract, they pull on the tendons, which in turn pull on the _____. In this way, the pull of contracting muscles allows you to move.
- bone
 - nerve
 - skin
 - joint fluid
46. The muscle that contracts to cause a joint to bend is called the _____.
- extensor
 - flexor
 - agonist
 - antagonist
47. A sudden, involuntary, and often painful contraction of one or more of your muscles is called a _____. It is also called a "muscle spasm."
- cramp
 - sprain
 - strain
 - contusion
48. The outermost layer of the skin is the _____.
- dermis
 - epidermis
 - extradermis
 - hypodermis
49. _____ is the pigment in our skin that, like a natural sunblock, helps protect us from harmful ultraviolet light. It is brown and is responsible for the color of our skin and hair.
- Niacin
 - Melanin
 - Tannin
 - Caffeine
50. True or False – There are no nerve endings in nails.
- true
 - false

51. What does the dermis do?
- Keeps skin strong and flexible thanks to its collagen and elastin
 - Grows hair
 - Produces sweat and oil
 - All of these
52. The _____ are grape-like air sacs in the lungs where the exchange of oxygen and carbon dioxide takes place.
- alveoli
 - bronchi
 - bronchioles
 - diaphragm
53. How many chambers does the human heart have?
- 2
 - 3
 - 4
 - 6
54. Which statement is correct?
- Sensory neurons carry messages from the brain to the effector organs.
 - Motor neurons carry messages from receptor organs to the brain.
 - Interneurons connect sensory and motor neurons in the peripheral nervous system.
 - None - all are incorrect
55. These are the main parts of a neuron, except:
- cell body
 - dendrites
 - axon
 - myofibrils
56. The place where the axon of one neuron meets the dendrites of another neuron is called the _____.
- synapse
 - node of Ranvier
 - neural junction
 - myelin sheath

57. The _____ is the largest and top-most part of our brain. It controls functions that we are aware of, such as voluntary movements, language, and problem-solving.
- cerebrum
 - cerebellum
 - brainstem
 - pons
58. The lobe of the brain most involved in reasoning, learning, voluntary motion, and “executive functions” like self-control and attention is the _____.
- frontal lobe
 - parietal lobe
 - temporal lobe
 - occipital lobe
59. The part of the peripheral nervous system that is responsible for movements within our control is the _____.
- autonomic nervous system
 - sensory nervous system
 - somatic nervous system
 - voluntary nervous system
60. Which is not a part of the urinary system?
- kidneys
 - ureters
 - gall bladder
 - urethra
61. Where does the ureter lead to?
- kidney
 - urinary bladder
 - urethra
 - uterus
62. Our kidneys help us maintain homeostasis. Which statement about what our kidneys do is incorrect?
- They regulate the amount of water in our body.
 - They pause filtration when we sleep to conserve energy.
 - They maintain the balance of salt ions in our body fluids.
 - They excrete harmful nitrogen-containing molecules, such as urea, ammonia, and uric acid.

63. Crocodiles are _____.
- a. amphibians
 - b. cnidarians
 - c. flightless birds
 - d. reptiles
64. Which pairing is incorrect?
- a. Crabs - arthropods
 - b. Snails - mollusks
 - c. Tapeworms - nematodes
 - d. None - all are correct
65. A fertilized egg is called a _____.
- a. ovum
 - b. zygote
 - c. embryo
 - d. fetus
66. These specialized plant structures are horizontal stems that grow along the surface of the soil. When they make proper contact with a moist soil surface, roots can grow from their nodes.
- a. rhizomes
 - b. runners
 - c. suckers
 - d. tubers
67. In this method of propagation, a portion of the stem, root, or leaf is cut and planted to develop into a new plant.
- a. cutting
 - b. grafting
 - c. layering
 - d. marcotting
68. Pollinators such as bees drink nectar from flowers and, as they move around, carry pollen from the male part of the flower to the female part of the same or another flower. This is an example of which type of relationship?
- a. commensalism
 - b. competition
 - c. mutualism
 - d. parasitism

69. Energy usually enters ecosystems as:
- stored energy in plants
 - chemical energy in nutrients
 - mechanical energy from the wind
 - sunlight
70. Which of the following is not found in the nucleus of an atom?
- proton
 - electron
 - neutron
 - none – they're all located in the nucleus
71. Which of these statements is false?
- Protons have an electric charge of +1.
 - Electrons have an electric charge of -1.
 - Atoms have the same number of protons and electrons.
 - Because the nucleus has a greater mass, atoms have an overall positive charge.
72. Which of these statements is true?
- Friction opposes the motion of objects.
 - Friction can occur even between surfaces that are not in contact with each other.
 - Friction acts in the same direction as the object's motion.
 - Friction speeds up the movement of objects.
73. Which statement is correct?
- The smaller the surface area of the objects in contact with each other, the greater the friction and the longer the distance travelled.
 - The smaller the surface area of the objects in contact with each other, the greater the friction and the shorter the distance travelled.
 - The bigger the surface area of the objects in contact with each other, the greater the friction and the longer the distance travelled.
 - The bigger the surface area of the objects in contact with each other, the greater the friction and the shorter the distance travelled.

74. The type of energy that is found in objects that are moving or have the potential to move is _____.
- electrical energy
 - nuclear energy
 - radiant energy
 - mechanical energy
75. When you light a candle, which energy transformation takes place?
- light → chemical and heat
 - light → mechanical and heat
 - chemical → light and heat
 - chemical → electrical and heat
76. You are one of the students assigned to raise the Philippine flag during your school's flag ceremony. What simple machine are you using to pull it up?
- inclined plane
 - lever
 - pulley
 - wedge
77. The fixed point of a lever is known as the _____.
- load
 - force
 - fulcrum
 - pivot
78. The density of an object is equal to the ratio of its mass to its volume. An object can float in water if its density is less than 1 g/cm^3 . What will happen if a $1 \text{ cm} \times 2 \text{ cm} \times 3 \text{ cm}$ piece of aluminum with a mass of 16 grams is placed in a swimming pool?
- It will sink.
 - It will float.
 - It will float but be partially submerged in water.
 - It will dissolve.
79. A material is said to be transparent if _____.
- it reflects light
 - it emits light
 - light can pass freely through it in a straight line
 - it absorbs light and redistributes the energy as heat

80. Which statement is false?
- Wave frequency is the number of waves that pass a fixed point in a given amount of time.
 - Wavelength is the distance between corresponding points of adjacent waves.
 - The lower the frequency, the lower the wavelength of an electromagnetic wave, and the less likely it is to be harmful.
 - High-frequency waves have a lot of energy and are more likely to be harmful.
81. Radar uses which type of electromagnetic wave?
- ultraviolet
 - microwaves
 - X-rays
 - gamma rays
82. Which of these statements is false?
- X-rays have enough energy to pass through soft tissues such as skin.
 - X-rays cannot pass through bones and teeth.
 - X-rays have the highest energy among all electromagnetic waves.
 - You should limit your exposure to X-rays because they can be harmful.
83. When light is _____, it changes direction as it passes into a new medium and changes speed.
- reflected
 - refracted
 - absorbed
 - transmitted
84. Opaque matter may do all of the following except _____.
- absorb light
 - reflect light
 - a combination of absorption and reflection
 - transmit light without scattering it
85. At which time of the day would you have the shortest shadow?
- morning
 - noon
 - afternoon
 - evening

86. _____ is the transfer of light energy to materials rather than being reflected or transmitted.
- Absorption
 - Infraction
 - Reflection
 - Refraction
87. Which of the following statements is correct?
- Magnets do not have force.
 - Paper can be attracted by magnets.
 - All metals can be attracted by magnets.
 - The push and pull of magnets is called magnetic force.
88. The transfer of heat energy through direct contact between the heat source and another object is called _____.
- conduction
 - convection
 - radiation
 - insulation
89. This method of heat transfer does not depend on the presence of matter to transfer heat.
- conduction
 - convection
 - radiation
 - insulation
90. A material that does not allow electricity to pass through it is called a _____.
- conductor
 - electrode
 - insulator
 - radiator
91. A circuit in which components are connected across each other, providing multiple paths for current
- open circuit
 - closed circuit
 - parallel circuit
 - series circuit

92. A device made temporarily magnetic by electricity
- electromagnet
 - ferrovoltaic device
 - magnetometer
 - solenoid
93. A _____ is a crack in the Earth's crust between two big plates.
- breaking point
 - focus
 - epicenter
 - fault
94. An earthquake triggered by human activity such as massive explosions and fluid injection or extraction, also known as induced seismicity
- tectonic earthquake
 - volcanic earthquake
 - endemic earthquake
 - man-made earthquake
95. The seasons in the Philippines are caused by:
- its location on the equator
 - prevailing winds
 - both
 - neither
96. Which is also known as the Hanging Habagat?
- northeast monsoon
 - northwest monsoon
 - southwest monsoon
 - southeast monsoon
97. Which of the following is the effect of the Earth's tilt and revolution?
- movement of wind
 - occurrence of tides
 - occurrence of seasons
 - movement of water in seas

98. How much time would it take for the Earth to complete one revolution?
- 7 days
 - 30 days
 - 24 hours
 - 365 $\frac{1}{4}$ days
99. Which statement is false about the Earth's orbit?
- The Earth's orbit is slanted 23.5 degrees.
 - An orbit is an elliptical path around the sun.
 - An orbit is an imaginary route of the Earth around the sun.
 - As the Earth spins on its axis, it also travels around its orbit.
100. Which of the following statements describe the outer planets?
- They are large and made of rocks.
 - They are small and made of ice and gas.
 - They are large and made up mostly of gas.
 - They are solid and made up of rocks and metals.
101. Which of the following planets is farthest from the Sun?
- Venus
 - Jupiter
 - Uranus
 - Neptune
102. Which of the following are the inner planets?
- Mercury, Venus, Earth, Mars
 - Venus, Mars, Saturn, Uranus
 - Earth, Jupiter, Uranus, Neptune
 - Jupiter, Saturn, Uranus, Neptune
103. Which statement is false?
- The inner planets are smaller than the outer planets.
 - The outer planets are bigger than the inner planets.
 - The inner planets have average temperatures above 0°C while the outer planets have average temperatures below 0°C.
 - None of the above

104. Which statement correctly describes the atmosphere of each planet?
- The atmosphere of Venus is mostly carbon dioxide.
 - The atmosphere of Mercury is mostly nitrogen.
 - The atmosphere of Earth is mostly oxygen.
 - The atmosphere of Saturn is mostly helium.
105. Term used to describe the moon when less than half of it is illuminated, but not totally dark
- crescent
 - gibbous
 - waning
 - waxing
106. A constellation is a group of visible _____ that appear to form a pattern when viewed from Earth.
- lights
 - planets
 - comets
 - stars
107. Which gas powers the nuclear reactions within stars that make them shine brightly?
- carbon
 - hydrogen
 - helium
 - oxygen
108. _____ is the process by which water vapor (gas) changes into tiny droplets of liquid water in the atmosphere.
- Evaporation
 - Condensation
 - Precipitation
 - Respiration
109. Clouds that tend to produce precipitation
- cirrus
 - cumulus
 - nimbus
 - stratus

110. This refers to the amount of moisture in the air.
- humidity
 - pressure
 - temperature
 - weather
111. Which of these weather instruments indicates the direction of the wind?
- anemometer
 - barometer
 - hygrometer
 - wind vane
112. Which of the following statements is false?
- Tropical cyclones that form in the Atlantic and Eastern Pacific Oceans are called hurricanes.
 - Tropical cyclones that form in the Western Pacific Ocean are called typhoons.
 - The source of heat of tropical cyclones is warm air from the ocean.
 - None – all are correct.
113. The particles of this type of soil are coarse and loose.
- clay
 - loam
 - humus
 - sand
114. The upper layers develop from this layer.
- topsoil
 - subsoil
 - parent rock
 - bedrock
115. The transfer of solid and rock fragments from one place to another
- erosion
 - siltation
 - sedimentation
 - weathering

ANSWER KEY

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