Hawi Shabe high school for grade 12 N students biology work sheet 2017 E.C

Choose The Best Answer from the Given Alternatives

1. Which of the following of statement is **NOT** true about nitrogen fixing bacteria? They;

A. convert nitrogen gas into ammonium ions.

C. break down nitrate ions into ammonium ions.

B. are found in nodules on the roots of legumes.

D. play a vital role in the nitrogen cycle in nature.

2. Which of the following are the most significant factors in determining biome type?

A. soil type and soil depth

B. temperature and rainfall

C. temperature and climate

D. climate and grazing animal

3. Biodiversity is:

A. an area with specific biotic and abiotic conditions

B. a measures by people restores an ecosystem

C. replacement of the ecosystem by another ecosystem

D. a measure of the overall variability of life on the Earth

4. A woman with unknown blood type and a man also with unknown blood type could potentially have four children with all blood groups in different years. What are the possibleblood groups of the parents?

A. A and B blood groups

B. A and O blood groups

C. B and O blood groups

D. AB and O blood groups

5. In peas, a pure tall plant (TT) is crossed with a pure short plant (tt). The ratio of pure tall

plants to pure short plants in F_2 generation will be; A**. 1: 3** B. **3: 1** C. **1: 1** D. **2: 1**

6. The four daughter cells produced in meiosis will have a:

A. n number of chromosomes and will differ genetically from each other

B. 2n number of chromosomes and will differ genetically from each other

C. 2n number of chromosomes and will be genetically identical to each other

D. n number of chromosomes and will be genetically identical to each other

7. What characterizes prokaryotic cells?

A. the presence of mitochondria B. the presence of chloroplasts

C. the membrane bound nucleus D. the unicellular level of organization

8. A larger brain NOT allows humans to;

A. create life on the planet Earth B. plan in advances to avoid attack

C. develop and use tools and weapons D. run faster in more upright poster

9. What is the classification criterion of the human races into Negroid, Caucasoid and Mongoloid?

A. Large brain B. Exact nature

C. True bipedalism D. Genetic analysis

10. Some enzymes have been named based on the source from which they were first identified. An example of this is;

A. Pepsin B. Papayin C. Nuclease D. Amylase

11. Fermentation of glucose by yeast produces:

A. Lactic acid and oxygen B. Ethanol and oxygen

C. Lactic acid and carbon dioxide D. Ethanol and carbon dioxide

12. Which of the following mutation is **NOT** heritable?

A. Mutation in somatic cells B. Mutation in pro-gametic cells

C. Mutation in egg cells D. Mutation in sperm cells

13. Much of our current thinking on" Natural selection" to the ideas of;

A. B. Lamarck B. C. Darwin C. G. Mendel D. I. Pavlov

14. Which of the following is an educated guess as to how the biologist thinks the experiment will turn out?

A. Conclusion B. Observation C. Hypothesis D. Prediction

15. The unknown food sample was tested with iodine in potassium iodide solution and gives a blue black colour. This indicates that the food sample contains:

A. Sucrose B. Proteins C. Glucose D. Starches

16. The type of succession that starts with the colonization by organisms by newly emerging land forms and water bodies?

A. Tertiary succession B. Later succession

C. Primary succession D. Secondary succession

17. Why the Grogor Mendel to be considered as a father of Genetics? Because;

A. identify the distinguishable contrasting traits
B. choose Garden pea plants for experimentation
C. laid down foundation for the rules of heredity
D. succeeds experimentation for a teaching certificate

18. Refers to the offspring's from a cross between different parents with different traits?

A. the fourth filial generation B. the third filial generation

C. the second filial generation D. the first filial generation

19. Which of the following sequences shows the current outline of the fossilization process of any organisms?

A. Uplift→permineralisation→ sedimentation→death

B. Death→Sedimentation → permineralisation →uplift

C. Sedimentation → permineralisation → uplift →-death

D. Permineralisation →-uplift →- death-→-sedimentation

20. Which of the following is **NOT** the characteristic of analogous structures?

A. They have similar functions B. They show common ancestor

C. They have different morphology D. They have different evolutionary origin

21. The protein part of an enzyme is known as;

A. Coenzymes B. Apoenzymes C. Holoenzymes D. Isoenzymes

22. Which of the following contains the four most common elements in living organisms?

A. Carbon, Oxygen, Hydrogen, and Nitrogen

B. Nitrogen, Hydrogen, potassium, and Oxygen

C. Boron, Phosphorus, Potassium and Oxygen

D. Hydrogen, Oxygen, Carbon and Phosphorous

23. Transport of minerals across the plasma membrane against its concentration gradients is:

A. Active transport B. Passive transport C. Simple diffusion D. Osmosis

24. Which of the following is the two main advantage of cross breeding of crop plants and stockanimals?

A. Increasing heterozygosity and increasing productivity

B. Increasing homozygosity and increasing productivity

C. Decreasing heterozygosity and increasing productivity

D. Decreasing heterozygosity and decreasing productivity

25. The DNA triplet TAT would code for an amino acid carried by tRNA with the anticodon:

A. AUA B. UAU C. TAT D. UUU

26. In which of the following organisms, both transcription and translation processes occur in

cytoplasm at the same time?

A. Plants B. Algae C. Bacteria D. Animals

27. Where does the Krebs cycle happen?

A. Cristae of mitochondria

B. Matrix of mitochondria

C. Permanent vacuole

D. Cytosol of cytoplasm

28. How many ATP molecules are produced from one glucose molecule during electron transport system?

A. 4 ATP B. 2 ATP C. 4 ATP D. 34 ATP

29. Which of the following provide the main direct evidence for evolution?

A. Study of paleontology B. Study of embryo C. Study of anatomy D. Study of biochemistry

30. What is cylinder used to measure? A. Mass B. Volume C. Length D. Diameter

31. The organism cause malaria is: A. Amoeba B. Candida C. Paramecium D. Plasmodium

32. Which of the following theories of evolution, life has reached this planet Earth from resistant spores?

A. Special creation theory B. Eternity of life theory

C. Cosmozoan theory D. Biochemical theory

33. Of the following parts of the cell listed below, which one is common to plant cell, animal cell and bacterial cell?

A. Cell membrane B. Cell wall C. Mitochondria D. Nucleus

34. Which of these are **NOT** current combinations of monosaccharide's to form disaccharides?

A. Glucose + Glucose = Maltose B. Glucose + Fructose = Lactose

C. Glucose + Fructose = Sucrose D. Glucose + Galactose = Lactose

35. What is the function of the nucleus of an animal cell?

A. It is the place where energy is produced. B. It stores the genetic material

C. It defends the cells from infection D. It is used for protein synthesis

36. Which of the following is **NOT** the function of the liver?

A. Detoxification B. Secretion of digestive enzymes

C. Storage of glycogen D. Production of bile

37. A plant that has a stem with scattered vascular bundles, leaves with parallel venation and seeds with single cotyledon is:

A. a dicot plant B. a monocot plant

C. a bean plant D, a gymnosperm plant

38. Nitrogen fixing -bacteria live in the root in nodules of legume plants. Both of them benefits, this relationship is an example of:

A. Parasitism B. Commensalism C. Predation D. Mutualism

39. Which of the following disease is **NOT** caused due to the lack of nutrient in the food?

A. Night blindness B. Tuberculosis C. Scurvy D. Rickets

40. When the infection occurs the number of:

A. red blood cells increases B. red blood cells decreases

C. white blood cells increases D. white blood cells decreases

41. Which of the following is the cause of allopatric speciation?

A. a river changing course B. a mountain range being created

C. a land mass separating two bodies of water D. All of the above

42. Which of the following is the most effective form of birth control?

A. The rhythm method B. Hormonal method C. Condom D. Vasectomy

43. Which of the following is **NOT** used to make glucose in photosynthesis?

A. Water B. Carbon dioxide C. Light energy D. Oxygen

44. When a person receives vaccine, his immune system is stimulated to produce:

A. Antigen B. Antibodies C. Antibiotic D. Antitoxin

45. Which of the following is considered **ONLY** a male hormone?

A. Oestrogen B. Progesterone C. Testosterone D. Adrenalin

46. A patient in a hospital needs a blood transfusion. If the patient is a 'universal recipient", what is his blood type?

A. O B. A C. B D. AB

47. Which of the following organs regulate salt levels in the human body?

A. Bladder B. Intestines C. Lungs D. Kidneys

48. Which of the following is **NOT** a characteristic of plants?

A. Heterotrophs B. Contain cell walls made of cellulose C. Make their food D. Eukaryotes

49. Which of the following level of organization is arranged in the **CORRECT** order from least to most inclusive?

A. Ecosystem, community, organism, population

B. Ecosystem, community, population, organism

C. Population, ecosystem, organism, community

D. Organism, population, community, ecosystem

50. Which are two ways of a population can decrease in size?

A. Immigration and emigration B. Decreased birth rate and immigration

C. Increased death rate and emigration D. Emigration and increased birth rate

51. In cell division, what is the phase that comes following the prophase?

A. Telophase B. Prophase C. Anaphase D. Metaphase

52. From which compound do photosynthetic organisms obtain nitrogen?

A. N_2 B. NO_3^- C. NO_2 D. NO

53. Which of the following **CORRECTLY** matched a structure with its function?

A. Mitochondria ---- photosynthesis B. Nucleus ------cellular respiration

C. Ribosome -----cellular respiration D. Chloroplast----- photosynthesis

54. The human body is controlled and co-ordinate by:

A. the nervous system B. the endocrine system C. circulatory system D. A and B

55. When crossing a homozygous recessive with a homozygous dominant, what is the chance of

getting an offspring with recessive phenotypes? A. 0% B. 25% C. 50% D. 75%

56. The salivary amylase enzyme functions to digest: A. Protein B. Fat C. Starch D. Lipid

57. One of the major functions of the large intestine is to:

A. secrete digestive enzymes B. regulate the release of bile C. break down hemoglobin D. reabsorb water

58. Which of the correct order of the levels in the food chain?

A. Producer→consumer→decomposer B. Consumer→producer→ decomposer

C. Decomposer→producer→consumer D. Producer→-decomposer →consumer

59. Which of the following vertebrates first to colonize the land?

A. Reptiles B. Birds C. Amphibians D. Mammals

60. Which of the following animals are regulating their body temperature or endothermic?

A. Birds and reptiles B. Mammals and reptiles

C. Mammals and birds D. Amphibians and birds

61. The process by which living things get energy from food is known as:

A. Nutrition B. Digestion C. Respiration D. Reproduction

62. Which of the following is **NOT** the part of circulatory system?

A. Heart B. Lungs C. Blood D. Blood vessels

63. In humans fertilization of an egg normally takes place in:

A. Vagina B. Uterus C. Fallopian tube D. Ovary

64. Water moves out of the cell if the cell is placed in a solution that is:

A. Hypotonic B. Isotonic C. Hypertonic D. Equilibrium

65. Which of the following is an example of **NON-RENEWABLE** resources?

A. Coal B. Water C. Vegetation D. Animals

66. The most abundant gases in the earth's atmosphere by volume is:

A. Oxygen B. Carbon dioxide C. Hydrogen D. Nitrogen

67. Bending of shoot of a plant in response to light is known as;

A. Geotropism B. Phototropism C. Hydrotropism C. Chemotropism

68. Which one of the following hormone is stimulate the absorption of water and control the loss of water through urine? A. TSH B. FSH C. ADH E. LH

69. Diabetes is caused due to the deficiency of:

A. Iron B. Thyroxin C. Iodine D. Insulin

70. Which of the following nutrients are needed in your body in small amount?

A. Vitamins and minerals B. Minerals and lipids

C. Vitamins and proteins D. Minerals and carbohydrates

71. After information is processed in the central nervous system, instructions are sent to the body

by which neuron? A. Afferent neuron B. Rely neuron

C. Sensory neuron D. Efferent neuron

72. What are the necessary conditions that plant need to germinate?

A. Water, warmth and air B. Water, sunlight and air

C. Water, warmth and sunlight D. Water, sunlight and soil

73. Which of the following statements best describes a simple reflex action?

A. a rapid voluntary response B. a rapid involuntary response

C. a slow involuntary response D. a slow voluntary response

74. Which of the following dealing with interactions among organisms, between organisms and their environment is:

A. Taxonomy B. Anatomy C. Ecology D. Botan

75. Which of the following is storage carbohydrate in animals?

A. Glycogen B. Glucose C. Starch D. Cellulose

76. Which of the following is the highest level of the classification hierarchy?

A. Phylum B. Order C. Class D. Kingdom

77. The light-dependent reaction splitting of water molecule is:

A. Photolysis B. Hydrolysis C. Chemolysis D. Autolysis

78. Which of the following is **TRUE** about the characteristics of the viruses?

A. Viruses can only infect people. B. Viruses have many organelles.

C. Viruses contain genetic material. C. Viruses can perform photosynthesis

79. Which of the following chemical bond responsible for primary structure of proteins?

A. Ionic bond B. Sulfide bond C. Peptide bond D. Hydrogen bond

80. What is the chemical composition of bacterial cell wall?

A. Cellulose B. Peptidoglycan C. Starch D. Capsule

81. Which one of the following products does **NOT** need the role of bacteria?

A. Insulin B. Enzymes C. Vaccine D. Ethanol

82. The chromosomal mutation that results Down’s syndrome is A. Inversion

B. Duplication C. Chromosome non-disjunction D. Insertion

83. What is the theory that states disease is caused by micro organisms?

A, Spontaneous generation B. Biogenesis theory

C. Endosymbiotic theory D. Germ theory

84. Among the following statements, which one is **CORRECT** about mutations?

A. Accidents that occur spontaneously and randomly during DNA replication

B. That occur in somatic cells can pass on to the next generation.

C. Are changes in genetic composition of a population.

D. That occur in sex cells are completely harmless.

85 The nucleotides that build up the DNA molecule contain the following bases **EXCEPT**:

A. Guanine B. Adenine C. Cytosine D. Uracil

86. During the process of genetic engineering, bacteria are important to:

A. provide plasmids B. provide restriction endonucleases

C. breakdown the recombinant DNA molecule D. produces ligaze enzymes

87. Territories are most often maintained by: A. male animals B. female animals

C. both sexes D. group of animals

88. Which of the following is **NOT** learned behavior?

A. Classical conditioning B. Operant conditioning

C. Indistinctive behavior D. Insight learning

89. From the renowned Ethiopian biologists, who was worked to save the genetic diversity of the

Ethiopia's domestic plants? A. Dr Gebissa Ejeta B. Dr Melaku Worede

C. Professor Tilahun Yilma B. Dr Aklilu Lemma

90. The most important biologists tool is:

A. Periscope B. Telescope C. Stethoscope D. Microscope

Set by: Melkamu M.

Good Work!!!

91. Identify the odd statement about applications of biology.
A. Advancing the world's food security by adding and improving crop value.

B. Assisting court decision by giving firsthand information at a time of identification of paternity cases.
C. Promoting countries to use pathogenic microorganisms as biological weapons.
D. Taking part in the production of alternative energy sources.

92. What is the basis of classification of organisms into prokaryote and eukaryote?
A. Number of cells they contain C. Presence or absence of cell wall
B. Shape of the organism D. Structural complexity of the organism

93. Gram positive bacteria are more sensitive to antibiotic drug than gram negative bacteria is because of: A. They lack cell wall
C. Their cell wall is made from Peptidoglycan B. They have thin membrane outside their cell wall D. Lack extra membrane outside their Peptidoglycan

94. Bacterial cell lacks all of the following organelles **Except**:
A. Golgi bodies B. Plasmid C. Mitochondria D. Plastid

95. Which one of the following is **Not** considered as causes of food insecurity in Ethiopia? A. Using genetically modified organisms B. Climate change C. War and violence D. Technological barriers

96. What is the role of addition of hops during the process of beer production?
A. Serving as a source of wild yeast for processing beer
B. Increasing beer quality and preserving beer
C. Increasing the alcoholic content of beer.
D. Accelerating fermentation process of beer

97. Which one of the following characteristic feature makes archaea different from that of bacteria cell? A. Their cell wall does not

Peptidoglycan. C. Having single cell
B. Lack of membrane bounded organelles. D. Having circular DAN

98. Which one of the human body organ is highly affected by malaria?
A. Red blood cell B. Kidney C. Liver D. White blood cell E. A&C F. C&D

99. Which one of the following microorganism cannot grow outside of living cells?
A. Virus B. Bacteria C. Fungus D. Protozoa

100.Which bacterial structures are important for adherence to surface?
A. Endospore B. Cell wall C. Fimbriae D. Capsule E. Flagella features like

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