CSEC Biology – Form 4

Final Examination Kahoot Review Question Bank

Instructions: Each question has four options. The correct answer is provided in the answer key at the end of each Kahoot section. Use the questions for live Kahoot games or independent revision.

Kahoot 1: Ecology, Environment and Classification

1. Which characteristic is found in all living organisms?

A. Movement
B. Photosynthesis
C. Respiration
D. Locomotion

2. Which process involves removing metabolic waste?

A. Nutrition
B. Excretion
C. Growth
D. Reproduction

3. What is the difference between a habitat and an environment?

A. They mean the same thing
B. A habitat is where an organism lives; an environment includes surrounding conditions
C. An environment is where one organism lives
D. A habitat includes only living things

4. Which is an abiotic factor?

A. Fungi
B. Temperature
C. Bacteria
D. Grass

5. Which is a biotic factor?

A. Rainfall
B. Soil pH
C. Predators
D. Light intensity

6. A group of frogs of the same species living in a pond is called a:

A. Community
B. Ecosystem
C. Population
D. Habitat

7. A community consists of:

A. All organisms of one species
B. All populations living in an area
C. Only plants in an area
D. All non-living factors

8. Which soil component improves aeration?

A. Water
B. Air spaces
C. Clay
D. Humus

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9. What is the role of decomposing microorganisms in soil?

A. Remove minerals
B. Break down dead organic matter
C. Produce sunlight
D. Prevent plant growth

10. Why do scientists use sampling?

A. To examine every organism
B. To estimate population characteristics
C. To eliminate organisms
D. To change population size

11. What does population density describe?

A. Number of species in an area
B. Number of organisms per unit area
C. Number of habitats
D. Total rainfall

12. What does distribution describe?

A. How organisms are spread in an area
B. How quickly organisms reproduce
C. Number of predators
D. Amount of rainfall

13. Ecology is the study of:

A. Rocks and minerals
B. Interactions between organisms and their environment
C. Only plants
D. Human anatomy

14. Which term describes a community interacting with its physical environment?

A. Population
B. Habitat
C. Ecosystem
D. Species

15. Which organism is an autotroph?

A. Mushroom
B. Grass
C. Goat
D. Lion

Answer key: 1. C 2. B 3. B 4. B 5. C 6. C 7. B 8. B 9. B 10. B 11. B 12. A 13. B 14. C 15. B

Kahoot 2: Feeding Relationships, Symbiosis and Energy Flow

16. What is the main source of energy for most ecosystems?

A. Soil
B. Sun
C. Water
D. Wind

17. Which organism is a producer?

A. Grass
B. Grasshopper
C. Frog
D. Snake

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18. In the chain grass → grasshopper → frog → snake, which is the secondary consumer?

A. Grass
B. Grasshopper
C. Frog
D. Snake

19. What is the correct direction of an arrow in a food chain?

A. Towards the food source
B. Towards the organism receiving energy
C. Both directions
D. Away from the producer

20. What is a food web?

A. One feeding relationship
B. Several interconnected food chains
C. A group of decomposers
D. A list of producers

21. Which organisms recycle nutrients by breaking down dead material?

A. Producers
B. Consumers
C. Decomposers
D. Predators

22. Why is less energy available at higher trophic levels?

A. Energy is created
B. Energy is lost through respiration and other processes
C. Consumers stop feeding
D. Producers absorb all the energy

23. Which process releases energy from glucose in cells?

A. Photosynthesis
B. Respiration
C. Transpiration
D. Diffusion

24. What is mutualism?

A. One benefits, one is harmed
B. Both organisms benefit
C. One benefits, the other is unaffected
D. Both are harmed

25. A tick feeding on a dog is an example of:

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

26. A shark and a remora fish demonstrate:

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

27. Which relationship involves one organism capturing and eating another?

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

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28. What happens to energy as it passes along a food chain?

A. It increases
B. It remains constant
C. It decreases
D. It disappears completely

29. Which organisms are most directly responsible for returning nutrients to the soil?

A. Herbivores
B. Carnivores
C. Decomposers
D. Producers

30. What would most likely happen if all decomposers disappeared?

A. Nutrients would be recycled faster
B. Dead organic matter would accumulate
C. Producers would increase indefinitely
D. Food chains would become longer

Answer key: 16. B 17. A 18. C 19. B 20. B 21. C 22. B 23. B 24. B 25. C 26. B 27. B 28. C 29. C 30. B

Kahoot 3: Nutrient Cycles, Natural Resources and the Environment

31. Which process removes water vapour from plants?

A. Condensation
B. Transpiration
C. Precipitation
D. Infiltration

32. Which process changes water vapour into liquid water?

A. Evaporation
B. Condensation
C. Transpiration
D. Runoff

33. Which process removes carbon dioxide from the atmosphere?

A. Respiration
B. Combustion
C. Photosynthesis
D. Decomposition

34. Which process returns carbon dioxide to the atmosphere?

A. Photosynthesis
B. Respiration
C. Nitrogen fixation
D. Absorption

35. Which bacteria convert atmospheric nitrogen into usable nitrogen compounds?

A. Nitrogen-fixing bacteria
B. Pathogenic bacteria
C. Decomposers only
D. Photosynthetic bacteria

36. What is nitrogen fixation?

A. Conversion of nitrates to nitrogen gas
B. Conversion of atmospheric nitrogen into usable nitrogen compounds
C. Conversion of glucose into nitrogen
D. Release of oxygen

LIVEWORKSHEETS

37. Which of the following is a renewable resource?

A. Coal
B. Petroleum
C. Solar energy
D. Natural gas

38. Which activity contributes most directly to deforestation?

A. Reforestation
B. Excessive logging
C. Recycling paper
D. Planting trees

39. What does biodegradable mean?

A. Cannot be broken down
B. Can be broken down by microorganisms
C. Can only be burned
D. Can be recycled indefinitely

40. Which material is non-biodegradable?

A. Fruit peel
B. Paper
C. Plastic bottle
D. Leaves

41. Which is a difficulty associated with recycling manufactured materials?

A. All materials are easy to separate
B. Contamination can make recycling difficult
C. Recycling always produces new materials immediately
D. Materials never lose quality

42. Which activity can cause water pollution?

A. Proper sewage treatment
B. Dumping untreated sewage into rivers
C. Planting trees
D. Collecting rainwater

43. How can fertiliser runoff damage aquatic ecosystems?

A. It increases oxygen indefinitely
B. It can cause eutrophication
C. It removes all bacteria
D. It prevents algal growth

44. What is one effect of oil spills on marine organisms?

A. Improved respiration
B. Damage to body surfaces and reduced survival
C. Increased reproduction
D. Improved feeding

45. Which action helps conserve natural environments?

A. Destroying wetlands
B. Overfishing
C. Establishing protected areas
D. Dumping waste

46. What is reforestation?

A. Removing all trees
B. Replanting trees in an area
C. Burning forests
D. Converting forests into farms

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47. Which gas is a major contributor to the enhanced greenhouse effect?

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

48. Which is a likely consequence of rising global temperatures?

A. Lower sea levels everywhere
B. Increased risk of coastal flooding
C. Elimination of hurricanes
D. No change in rainfall

49. Which human activity increases atmospheric carbon dioxide?

A. Planting forests
B. Burning fossil fuels
C. Recycling glass
D. Using solar panels

50. Which action would help protect Caribbean wetlands?

A. Draining wetlands for construction
B. Dumping waste into mangroves
C. Preventing illegal dumping and restoring mangroves
D. Removing all wetland vegetation

Answer key: 31. B 32. B 33. C 34. B 35. A 36. B 37. C 38. B 39. B 40. C 41. B 42. B 43. B 44. B 45. C 46. B 47. B 48. B 49. B 50. C

Kahoot 4: Population Studies and Cell Biology

51. Which factor increases population size?

A. Death rate
B. Emigration
C. Birth rate
D. Predation

52. What is immigration?

A. Organisms leaving an area
B. Organisms entering an area
C. Organisms dying
D. Organisms reproducing

53. What happens when the birth rate exceeds the death rate, with migration unchanged?

A. Population decreases
B. Population increases
C. Population remains constant
D. Population becomes extinct

54. Which factor can limit population growth?

A. Unlimited food
B. Increased habitat space
C. Competition for resources
D. Unlimited water

55. What does the carrying capacity of an environment represent?

A. Maximum population it can sustainably support
B. Number of predators
C. Total number of species
D. Rate of reproduction

LIVEWORKSHEETS

56. Which structure controls the activities of most cells?

A. Cell wall
B. Nucleus
C. Vacuole
D. Cytoplasm

57. Which structure is the site of aerobic respiration?

A. Ribosome
B. Mitochondrion
C. Nucleus
D. Cell wall

58. Which structure controls what enters and leaves a cell?

A. Cell membrane
B. Cytoplasm
C. Chloroplast
D. Vacuole

59. Which structure is found in plant cells but not animal cells?

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

60. What is the function of chloroplasts?

A. Protein synthesis
B. Photosynthesis
C. Respiration
D. Storage of genetic material

61. Which structure gives plant cells support and shape?

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

62. Which sequence shows the correct organisation of living organisms?

A. Tissue → Cell → Organ → Organism
B. Cell → Tissue → Organ → Organ system → Organism
C. Organ → Cell → Tissue → Organism
D. Cell → Organism → Tissue → Organ

63. A group of similar cells working together forms a:

A. Tissue
B. Organ
C. System
D. Population

64. Which cell adaptation helps a red blood cell transport oxygen?

A. Large central nucleus
B. Biconcave shape
C. Thick cell wall
D. Chloroplasts

65. What is diffusion?

A. Movement of water only
B. Movement of particles from high to low concentration
C. Movement of particles from low to high concentration
D. Movement requiring energy

LIVEWORKSHEETS

66. What is osmosis?

A. Movement of glucose through a membrane
B. Movement of water through a selectively permeable membrane from higher water potential to lower water potential
C. Movement of oxygen into cells
D. Movement of minerals using ATP

Answer key: 51. C 52. B 53. B 54. C 55. A 56. B 57. B 58. A 59. C 60. B 61. B 62. B 63. A 64. B 65. B 66. B

Kahoot 5: Plant Nutrition and Food Substances

67. Which type of nutrition involves making organic food from inorganic substances?

A. Heterotrophic
B. Autotrophic
C. Saprophytic
D. Parasitic

68. Which organism obtains nutrients from dead organic matter?

A. Grass
B. Mushroom
C. Goat
D. Human

69. Which substances are raw materials for photosynthesis?

A. Oxygen and glucose
B. Carbon dioxide and water
C. Nitrogen and oxygen
D. Glucose and water

70. Which pigment absorbs light energy for photosynthesis?

A. Haemoglobin
B. Chlorophyll
C. Melanin
D. Keratin

71. What is the balanced general equation for photosynthesis?

A. Glucose + oxygen → carbon dioxide + water
B. Carbon dioxide + water → glucose + oxygen
C. Oxygen + water → glucose + nitrogen
D. Glucose + water → oxygen

72. Where does most photosynthesis occur in a leaf?

A. Upper epidermis
B. Palisade mesophyll
C. Lower epidermis
D. Vein

73. Which leaf structure allows carbon dioxide to enter?

A. Xylem
B. Stomata
C. Cuticle
D. Midrib

74. What is the main function of the waxy cuticle?

A. Absorb carbon dioxide
B. Reduce water loss
C. Transport sugars
D. Absorb minerals

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75. Which mineral is needed to make chlorophyll?

A. Magnesium
B. Sodium
C. Calcium
D. Iodine

76. What is a likely symptom of nitrogen deficiency in plants?

A. Yellowing of older leaves
B. Increased flowering
C. Darker green leaves
D. Increased root growth

77. Which test is used to detect starch in a leaf?

A. Benedict's solution
B. Iodine solution
C. Biuret solution
D. Ethanol

78. Which food substance is the body's main immediate source of energy?

A. Carbohydrates
B. Proteins
C. Vitamins
D. Minerals

79. Which test is used to identify protein?

A. Iodine test
B. Biuret test
C. Benedict's test
D. Emulsion test

80. What colour change indicates a positive Benedict's test for reducing sugar after heating?

A. Blue to brick-red
B. Brown to blue-black
C. Purple to pink
D. Green to colourless

81. What is the function of lipids in the body?

A. Only growth
B. Energy storage and insulation
C. Transport of oxygen
D. Production of chlorophyll

82. What is the function of enzymes?

A. Increase activation energy
B. Speed up chemical reactions
C. Destroy all substrates
D. Stop metabolism

Answer key: 67. B 68. B 69. B 70. B 71. B 72. B 73. B 74. B 75. A 76. A 77. B 78. A 79. B 80. A 81. B 82. B

Kahoot 6: Enzymes, Digestion and Nutrition

83. What happens to most enzymes at very high temperatures?

A. They become more active permanently
B. They become denatured
C. They turn into substrates
D. They produce more enzymes

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84. Why does an enzyme work best at its optimum pH?

A. Its active site has a suitable shape
B. It has no active site
C. It stops reacting
D. It becomes a carbohydrate

85. Which enzyme breaks down starch?

A. Lipase
B. Protease
C. Amylase
D. Maltase

86. Which enzyme breaks down proteins?

A. Amylase
B. Protease
C. Lipase
D. Maltase

87. Which enzyme breaks down fats?

A. Lipase
B. Amylase
C. Protease
D. Maltase

88. What is ingestion?

A. Removal of undigested food
B. Taking food into the body
C. Absorption of nutrients
D. Breakdown of food

89. What is egestion?

A. Removal of undigested food
B. Absorption of glucose
C. Swallowing food
D. Chemical digestion

90. Where does most absorption of digested food occur?

A. Stomach
B. Small intestine
C. Large intestine
D. Oesophagus

91. Which adaptation increases the absorptive surface area of the small intestine?

A. Thick muscular walls
B. Villi and microvilli
C. Strong teeth
D. Narrow lumen

92. What is the main function of bile?

A. Digest proteins
B. Emulsify fats
C. Digest starch
D. Absorb glucose

93. Which organ produces bile?

A. Pancreas
B. Liver
C. Stomach
D. Small intestine

LIVEWORKSHEETS

94. What is assimilation?

A. Taking food into the mouth
B. Using absorbed nutrients in cells
C. Breaking food mechanically
D. Removing undigested food

95. Which nutrient is particularly important for growth and tissue repair?

A. Carbohydrates
B. Proteins
C. Water
D. Vitamins

96. Which deficiency disease results from a lack of vitamin C?

A. Rickets
B. Scurvy
C. Anaemia
D. Goitre

Answer key: 83. B 84. A 85. C 86. B 87. A 88. B 89. A 90. B 91. B 92. B 93. B 94. B 95. B 96. B

Kahoot 7: Respiration, Gaseous Exchange and Transport

97. What is the difference between breathing and respiration?

A. They are identical
B. Breathing is ventilation; respiration releases energy in cells
C. Respiration only occurs in lungs
D. Breathing releases ATP

98. Where does aerobic respiration mainly occur?

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

99. Which substances are produced during aerobic respiration?

A. Glucose and oxygen
B. Carbon dioxide, water and energy
C. Nitrogen and glucose
D. Protein and oxygen

100. What is the main function of ATP?

A. Store genetic information
B. Transfer usable energy within cells
C. Transport oxygen
D. Digest food

Answer key: 97. B 98. B 99. B 100. B

Additional Challenge Questions

101. A plant is placed in darkness for 48 hours. Why?

A. To increase photosynthesis
B. To use up stored starch
C. To increase chlorophyll
D. To absorb more minerals

102. A potato strip becomes firm when placed in distilled water. Why?

A. Water leaves its cells
B. Water enters its cells by osmosis
C. Glucose enters its cells
D. The cell wall dissolves

LIVEWORKSHEETS

103. A farmer adds fertiliser to a pond accidentally. Algae grow rapidly. What may happen next?

A. Dissolved oxygen increases permanently
B. Oxygen levels may decrease as decomposers break down dead algae
C. All fish reproduce faster
D. The water becomes sterile

104. A food chain contains grass, rabbit, snake and hawk. If the rabbit population decreases, what may happen?

A. Grass decreases immediately
B. Snake numbers may decrease
C. Hawk numbers must increase
D. Grass disappears

105. Why are alveoli effective gaseous exchange surfaces?

A. Thick walls and small surface area
B. Thin walls, moist surfaces and large surface area
C. Dry surfaces and thick walls
D. Lack of blood supply

106. Which blood component is responsible for clotting?

A. Red blood cells
B. White blood cells
C. Platelets
D. Plasma proteins only

107. Which blood cells transport most oxygen?

A. White blood cells
B. Red blood cells
C. Platelets
D. Lymphocytes

108. Which blood vessel carries oxygenated blood from the lungs to the heart?

A. Pulmonary artery
B. Pulmonary vein
C. Vena cava
D. Aorta

109. What is the main function of valves in the heart?

A. Increase blood pressure
B. Prevent backflow of blood
C. Produce blood cells
D. Exchange gases

110. Which plant tissue transports water and mineral salts?

A. Phloem
B. Xylem
C. Epidermis
D. Cortex

111. Which plant tissue transports sucrose around the plant?

A. Xylem
B. Phloem
C. Cambium
D. Epidermis

112. What is transpiration?

A. Movement of sugars through phloem
B. Loss of water vapour from aerial parts of plants
C. Absorption of minerals by roots
D. Movement of water into root hairs

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113. Which condition generally increases transpiration?

A. High humidity
B. Low temperature
C. High wind speed
D. Darkness

114. Why do root hair cells have long extensions?

A. To increase surface area for absorption
B. To produce glucose
C. To transport sugars
D. To reduce water uptake

115. How are mineral ions absorbed by root hair cells when their concentration is lower in the soil than in the cells?

A. Osmosis
B. Diffusion
C. Active transport
D. Transpiration

Answer key: 101. B 102. B 103. B 104. B 105. B 106. C 107. B 108. B 109. B 110. B 111. B 112. B 113. C 114. A 115. C

Suggested use

The question bank can be divided into separate Kahoot sessions by topic. The additional challenge questions are suitable for a final, more application-focused revision round. Encourage students to explain why the correct option is best, especially for questions involving food webs, osmosis, population changes, photosynthesis and transport.

LIVEWORKSHEETS