

Plants and Society, 8e (Levetin)
Chapter 1 Plants in Our Lives

- 1) The consumption of meat by humans *indirectly* makes them _____.
- A) primary consumers
 - B) secondary consumers
 - C) primary producers
 - D) secondary producers
 - E) herbivores

Answer: B

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- 2) The process of photosynthesis produces these two end products:
- A) carbon dioxide and sugar
 - B) oxygen and sugar
 - C) carbon dioxide and oxygen
 - D) water and carbon dioxide
 - E) water and sugar

Answer: B

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- 3) Which of the following are the sexual parts of a flower?
- A) stamens and carpels
 - B) carpels and sepals
 - C) sepals and petals
 - D) stamens and sepals
 - E) All of these are the sexual parts of a flower.

Answer: A

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- 4) Which of the following is the study of the classification of plants?
- A) Ethnobotany
 - B) Mycology
 - C) Systematics
 - D) Phycology
 - E) Palynology

Answer: C

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5) Which of the following is *not* a defined property of life?

- A) Growth and reproduction
- B) Ability to respond to the environment
- C) Organized structure
- D) Ability to adapt and evolve as a population
- E) All of the above are properties of life.

Answer: E

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6) All of the following except one are examples of monocots. Choose the exception.

- A) grasses
- B) orchids
- C) dandelions
- D) lilies
- E) All of these are examples of monocots.

Answer: C

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7) What is the main importance of *gymnosperms* to human societies?

- A) their seeds are important food sources
- B) medicines for a wide variety of illnesses
- C) wood for construction, fuel, and paper
- D) floral arrangements
- E) both their use as medicines and seeds for food

Answer: C

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8) Toxic *algal blooms* are becoming more common due to which of the following?

- A) natural causes
- B) over harvesting of fish and other marine species
- C) increased recreational activities on lakes and streams
- D) increased nutrient pollution
- E) More than one of these reasons are correct.

Answer: D

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9) The most serious cause of crop loss is plant diseases caused by which of the following?

- A) fungi
- B) bacteria
- C) viruses
- D) insects
- E) global warming

Answer: A

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10) The Kingdom Fungi include which of the following organisms?

- A) Molds
- B) Mildews
- C) Yeast
- D) Mushrooms
- E) All of the above are classified as fungi.

Answer: E

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11) Which of the following is an important role that fungi play?

- A) decomposers
- B) fermenters
- C) antibiotic producers
- D) food source
- E) All of these are important roles played by the Fungi.

Answer: E

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12) What is the first step of hypothesis-driven science?

- A) Hypothesis
- B) Observation
- C) Experimentation
- D) Publication
- E) Formulating a theory

Answer: B

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- 13) Which of the following is the best definition of a scientific theory?
- A) an explanation that is always supported by the facts and has never been disproved
 - B) an educated guess
 - C) a tentative explanation for an observed phenomenon
 - D) an observation observed so many times it is considered a fact
 - E) an undeniable truth supported by scientific evidence

Answer: A

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- 14) The part of the Osage orange that was biologically mimicked by barbed wire to "tame the West" was its _____.

- A) "hedge apples"
- B) shaggy bark
- C) bright orange wood
- D) thorny branches
- E) repellant chemicals

Answer: D

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- 15) The opposite metabolic "partner" of photosynthesis is which of the following processes?

- A) digestion
- B) cellular respiration
- C) ventilation (breathing)
- D) production of hormones
- E) DNA replication

Answer: B

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- 16) Which of the following is *not* found in prokaryotic cells?

- A) ribosomes
- B) cell membrane
- C) nucleus
- D) DNA or RNA
- E) cytoplasm

Answer: C

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17) Which of the following is *not* necessary for an *individual* to survive?

- A) metabolism
- B) organized structure
- C) organic composition
- D) ability to respond to the environment
- E) reproduction

Answer: E

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18) Hereditary information in the cell is carried in which of the following?

- A) carbohydrates
- B) nucleic acids
- C) proteins
- D) lipids
- E) More than one of the above are correct.

Answer: B

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19) Of the four molecules of life, which of the following is *not* a *major* organic group of the human diet?

- A) nucleic acids
- B) carbohydrates
- C) lipids
- D) proteins
- E) All of these are major organic groups of the human diet.

Answer: A

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20) Which of the following is the proper order from least complex molecule to most complex?

- A) glucose >> glycogen >> maltose
- B) sucrose >> glucose >> starch
- C) glucose >> maltose >> starch
- D) maltose >> glucose >> sucrose
- E) glycogen >> starch >> sucrose

Answer: C

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21) Which of the following is(are) correct?

- A) Many carbohydrates such as glucose are sources of energy for cells.
- B) Glucose and fructose are monosaccharides.
- C) The general formula for a six-carbon monosaccharide is $C_6H_{12}O_6$.
- D) Disaccharides are composed of two monosaccharides.
- E) All of the above are correct.

Answer: E

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22) The browning of apples is caused by the interaction of _____ and oxygen.

- A) terpenes
- B) alkaloids
- C) glycosides
- D) phenolics
- E) resins

Answer: D

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23) Which of the following carbohydrates *cannot* be used as an energy food source for humans?

- A) cellulose
- B) glucose
- C) fructose
- D) starch
- E) sucrose

Answer: A

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24) Glycogen is an energy storage molecule for which of the following organisms?

- A) bacteria
- B) plants
- C) animals
- D) fungi
- E) All of the above organisms except plants can store glycogen.

Answer: E

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25) Amino acids are the subunits of which of the following?

- A) carbohydrates
- B) lipids
- C) nucleic acids
- D) polypeptides and proteins
- E) More than one of the above are correct.

Answer: D

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26) Which type of lipid is most important in biological membranes?

- A) fats
- B) steroids
- C) phospholipids
- D) oils
- E) triglycerides

Answer: C

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27) Flowering plants are classified as which of the following?

- A) gymnosperms
- B) conifers
- C) angiosperms
- D) fungi
- E) ferns

Answer: C

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28) Which of the following secondary compounds are structurally similar to neurotransmitters and are mostly psychoactive?

- A) saponins
- B) tannins
- C) flavonoids
- D) terpenes
- E) alkaloids

Answer: E

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29) A biochemist discovers a molecule with a structure consisting of a phosphate group, a five-carbon sugar, and a nitrogenous base. This molecule is most likely classified as which of the following?

- A) protein
- B) carbohydrate
- C) nucleic acid
- D) lipid
- E) secondary metabolite

Answer: C

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30) Which of the following statements is correct?

- A) Nucleic acids are composed of repeating units called nucleotides.
- B) A nucleotide consists of a sugar, a phosphate group, and a nitrogenous base.
- C) DNA is *deoxyribonucleic acid*.
- D) The sequence of bases in DNA make up genes.
- E) All of the above are correct.

Answer: E

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31) All of the following are characteristics of fungi except one. Choose the exception.

- A) reproduction by seeds
- B) nonphotosynthetic cells
- C) store glucose as glycogen
- D) many are decomposers of organic matter
- E) All of these are characteristics of the fungi.

Answer: A

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32) The four parts of a typical angiosperm flower are _____, _____, _____, and _____.

Answer: sepals; petals; stamen; carpels

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33) The two groups of flowering plants are _____ and _____.

Answer: monocots; dicots

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Gradable: automatic

34) Whereas angiosperms produce seeds in _____, most gymnosperms produce seeds in _____.

Answer: fruits; cones

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Gradable: automatic

35) In science, a tentative explanation for an observation is called a(n) _____.

Answer: hypothesis

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36) The invention of Velcro was inspired by the plant _____.

Answer: cocklebur

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37) *Sucrose* is a disaccharide consisting of _____ and _____.

Answer: fructose; glucose

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Gradable: automatic

38) One difference between RNA and DNA is that DNA contains the nitrogenous base _____, whereas RNA contains the nitrogenous base _____.

Answer: thymine; uracil

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39) Amino acids are attached to each other in a protein by _____ bonds.

Answer: peptide

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Gradable: automatic

40) Amino acids differ from each other by the structure of their _____.

Answer: R-groups

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Gradable: automatic

41) Starch is a carbohydrate form of energy storage in _____.

Answer: plants

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42) A polysaccharide that is a structural component of plant cell walls is starch.

Answer: FALSE

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Gradable: automatic

43) The true algae comprise a group of eukaryotic photosynthetic organisms that are found mostly in aquatic environments, where they often form the base of the food chain.

Answer: TRUE

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44) DNA consists of complementary base pairs of AT and GC; RNA consists of base pairs AU and GC.

Answer: TRUE

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Gradable: automatic

45) An angiosperm fruit develops from the flower part called the carpel.

Answer: TRUE

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Gradable: automatic

46) Of all the algae, only the *brown algae* are considered part of the plant kingdom.

Answer: FALSE

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Gradable: automatic

47) Fungi and plants form a symbiotic relationship known as *lichens*.

Answer: FALSE

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48) Cocklebur is the plant that inspired the invention of barbed wire.

Answer: FALSE

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