

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Mutualistic associations of plant roots and fungi are called _____. 1) _____
 A) hyphae B) mycorrhizae C) shoots D) mycelia
- 2) Like plants, fungi have _____. However, in plants they are composed of _____, whereas in fungi they are composed of _____. 2) _____
 A) cell walls... phospholipids... cellulose B) cell walls... cellulose... peptidoglycan
 C) cell membranes... phospholipids... chitin D) cell walls... cellulose... chitin
- 3) What are hyphae? 3) _____
 A) fungal spores
 B) symbiotic associations between plant roots and fungi
 C) fungal digestive enzymes
 D) threadlike filaments that make up fungal bodies
- 4) Nutritionally, all fungi are _____. 4) _____
 A) parasites that acquire their nutrients from other organisms
 B) autotrophs that acquire their nutrients from chemicals
 C) autotrophs that acquire their nutrients from solar energy
 D) heterotrophs that acquire their nutrients by absorption
- 5) The function of a mushroom is to _____. 5) _____
 A) produce spores B) photosynthesize
 C) produce seeds D) store nutrients
- 6) What important role do fungi play in many ecosystems? 6) _____
 A) They pollinate plants. B) They disperse the fruits of angiosperms.
 C) They decompose organic material. D) They perform photosynthesis.
- 7) Some fungal species can kill herbivores while feeding off of sugars from its plant host. What type of relationship does this fungus have with its host? 7) _____
 A) predatory B) parasitic C) commensal D) mutualistic
- 8) In most fungi, karyogamy does not immediately follow plasmogamy, which consequently _____. 8) _____
 A) results in multiple diploid nuclei per cell
 B) allows fungi to reproduce asexually most of the time
 C) results in heterokaryotic or dikaryotic cells
 D) means that sexual reproduction can occur in specialised structures
- 9) Which of the following best describes the physical relationship of the partners involved in lichens? 9) _____
 A) Photosynthetic cells are surrounded by fungal hyphae.
 B) The fungi grow on rocks and trees and are covered by algae.
 C) Fungal cells are enclosed within algal cells.
 D) Lichen cells are enclosed within fungal cells.

- 10) Upon returning to its hive, a European honeybee communicates to other worker bees the presence of a nearby food source it has discovered by _____. 10) _____
 A) visual cues B) performing a waggle dance
 C) vibrating its wings at varying frequencies D) performing a round dance
- 11) A stickleback fish will attack a fish model as long as the model has red colouring. What animal behaviour idea is manifested by this observation? 11) _____
 A) sign stimulus B) imprinting
 C) classical conditioning D) cognition
- 12) A lizard's bobbing dewlap (a colourful flap of skin hanging from an *Anolis* lizard's throat) is an example of a(n) _____. 12) _____
 A) signal B) innate releasing mechanism
 C) stimulus D) reflex
- 13) What was the main reason the honeybees switched from the "round dance" to the "waggle dance"? 13) _____
 A) The round dance did not communicate the quality of the food.
 B) The preferred food source was farther away.
 C) The waggle dance communicates the presence of nectar.
 D) The round dance uses too much energy.
- 14) Scientists believe that the direction birds go when migrating is guided in part by _____. 14) _____
 I) the stars in the night sky
 II) the Sun during the day
 III) the magnetic field of the Earth
 A) only I B) only II C) only III D) I, II, and III

Listed below are several examples of types of animal behaviour. Choose the letter of the correct term (A–E) that matches each example in the following question(s).

- A. operant conditioning
 B. agonistic behaviour
 C. innate behaviour
 D. imprinting
 E. altruistic behaviour

- 15) Through trial and error, a rat learns to run a maze without mistakes to receive a food reward. 15) _____
 A) A B) B C) C D) D
- 16) A human baby performs a sucking behaviour perfectly when it is put in the presence of the nipple of its mother's breast. 16) _____
 A) A B) B C) C D) D
- 17) A mother goat can recognise its own kid by smell. 17) _____
 A) A B) B C) C D) D

- 18) Every morning at the same time, John went into the den to feed his new tropical fish. After a few weeks, he noticed that the fish swam to the top of the tank when he entered the room. This is an example of _____. 18) _____
- A) operant conditioning
B) classical conditioning
C) imprinting
D) cognition
- 19) Some dogs love attention, and Frodo the beagle learns that if he barks, he gets attention. Which of the following might you use to describe this behaviour? 19) _____
- A) The dog has been classically conditioned.
B) The dog is trying to protect its territory.
C) The dog's behaviour is a result of operant conditioning.
D) The dog is displaying an instinctive fixed action pattern.
- 20) Which of the following is true of innate behaviours? Innate behaviours _____. 20) _____
- A) are limited to invertebrate animals
B) are only weakly influenced by genes
C) occur in invertebrates and some vertebrates but not mammals
D) are expressed in most individuals in a population
- 21) Females are typically larger and more ornamented than males where _____ occurs. 21) _____
- A) polygamy
B) monogamy
C) polyandry
D) polygyny

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- 22) Upon observing a golden eagle flying overhead, a sentry prairie dog gives a warning call to other foraging members of the prairie dog community.
- A) B B) C C) D D) E