8. ANIMAL BEHAVIOUR

TEACHING TASK (Page 27 – 30)

Multiple Choice Questions

1) The behavior of a bull moving towards food at feeding time is primarily due to:

Answer: A) Instinct

Explanation: Bulls moving towards food at feeding time is an innate, genetically programmed response to hunger, characteristic of instinctual behavior.

2) Birds selecting suitable nesting materials based on innate preferences is an example of:

Answer: A) Instinct

Explanation: Selecting nesting materials based on innate preferences is a natural, unlearned behavior, which defines instinct.

3) Squirrels hiding food in multiple places and creating fake caches to deceive others is an example of:

Answer: D) Strategic planning

Explanation: Creating fake caches to deceive others indicates a level of foresight and deception, which is a form of strategic planning, a higher-order cognitive behavior.

4) Which animal is known for its logical thinking abilities, including understanding complex commands?

Answer: C) Dolphin

Explanation: Dolphins are well-documented for their advanced cognitive abilities, including understanding complex commands and demonstrating logical thinking.

5) Alex, the African grey parrot, was known for:

Answer: B) Understanding complex commands

Explanation: Alex, an African grey parrot, was famous for his ability to understand and use language, including complex commands, as demonstrated in research by Dr. Irene Pepperberg.

6) Cheating, bluffing, and hiding are features of intelligence observed in:

Answer: D) Humans and some other animals

Explanation: Behaviors like cheating, bluffing, and hiding are observed in humans and certain animals (e.g., scrubjays, squirrels), indicating advanced cognitive abilities.

7) Which of the following is NOT a feature of intelligence observed in animals?

Answer: C) Emotional expression

Explanation: While emotional expression is observed in animals, it is not typically classified as a feature of intelligence. Logical thinking, strategic planning, and learning from experience are cognitive traits associated with intelligence.

8) Ethology is the scientific study of:

Answer: B) Animal behavior

Explanation: Ethology is the branch of biology that focuses on studying animal behavior, particularly in natural environments.

9) The study of animal behavior in their natural habitats is known as:

Answer: C) Field investigations

Explanation: Field investigations involve observing animals in their natural habitats to study their behavior under natural conditions.

10) Which of the following is NOT a method used in field investigations?

Answer: D) Conducting controlled experiments

Explanation: Controlled experiments are typically conducted in laboratory settings, not in natural habitats, which is the focus of field investigations.

11) Ethology helps us understand:

Answer: D) Both animal and human behavior

Explanation: Ethology studies animal behavior but also provides insights into human behavior, as humans share evolutionary traits with other animals.

12) What inspired the study of animal behavior in the example of birds constructing nests strategically?

Answer: C) Their creativity and intelligence

Explanation: Strategic nest construction reflects birds' creativity and intelligence, inspiring ethological studies to understand these cognitive abilities.

13) Scrubjays hide their food, but sometimes another scrubjay steals it. This behavior demonstrates:

Answer: D) Strategic planning

Explanation: Hiding food and stealing it from others indicates strategic planning, as scrubjays assess and manipulate their environment to protect resources.

14) Which animal is known for creating fake caches to deceive others who might try to steal from them?

Answer: B) Squirrel

Explanation: Squirrels are known for creating fake caches to mislead potential thieves, a behavior that demonstrates deception and strategic planning.

15) Cockroaches preferring dark and humid conditions in the choice box experiment is an example of:

Answer: A) Instinct

Explanation: Cockroaches' preference for dark and humid conditions is an innate, unlearned behavior, characteristic of instinct.

Advanced Level Questions

16) Which of the following demonstrate conditioning in animals?

Answer: A, B, C

Explanation:

A) A cat running to the kitchen at the sound of a can opener: This is classical conditioning, where the cat associates the sound with food.

B) Grazing animals avoiding electric fences: This is operant conditioning, where animals learn to avoid fences due to negative reinforcement (shock).

C) Dogs salivating at the sound of a bell: This is classical conditioning, as demonstrated by Pavlov's experiments.

D) Ants forming trails to reach food sources: This is primarily instinctual, driven by pheromone trails, not conditioning.

17) Identify the examples of imitation among animals:

Answer: B, D

Explanation:

B) Chimpanzees copying each other's behavior: Chimpanzees are known to imitate behaviors, such as tool use, within their groups.

D) Monkeys learning to use sticks to spear grubs: This is imitation, as monkeys learn by observing others.

A) Dogs salivating at the sight of food: This is a conditioned or instinctual response, not imitation.

C) Ants leaving pheromone trails: This is instinctual, not imitative behavior.

18) What behaviors demonstrate human instinct?

Answer: D

Explanation:

D) Blinking when something approaches the eyes: This is an involuntary, instinctual reflex.

A, B, C: Waiting, smoking/drinking to fit in, and responding to ads are learned or socially influenced behaviors, not instincts.

Assertion and Reason Type

19) Assertion: Imitation is a behavior observed in humans and certain primates, where individuals copy actions or behaviors of others.

Reason: Chimpanzees have been observed imitating each other's behaviors, such as using sticks to obtain food.

Answer: A) Both Assertion and Reason are true, and Reason is the correct explanation for Assertion.

Explanation: The assertion correctly states that imitation is observed in humans and primates, and the reason provides a specific example (chimpanzees using sticks) that supports and explains the assertion.

20) Assertion: Humans, like other animals, exhibit instinctual behaviors, although they can often control these urges.

Reason: Despite feeling hungry, humans can learn to wait until everyone is seated before eating, displaying control over their natural instincts.

Answer: A) Both Assertion and Reason are true, and Reason is the correct explanation for Assertion.

Explanation: The assertion is true, as humans exhibit instincts but can control them. The reason illustrates this control (waiting to eat despite hunger), directly supporting the assertion.

21) Assertion: Animals exhibit various forms of intelligence, including strategic planning and deception, as observed in scrubjays and squirrels.

Reason: Scrubjays hide their food when another bird is watching, while squirrels create fake caches to deceive potential food thieves.

Answer: A) Both Assertion and Reason are true, and Reason is the correct explanation for Assertion.

Explanation: The assertion highlights animal intelligence through strategic planning and deception. The reason provides specific examples (scrubjays and squirrels) that demonstrate these behaviors, explaining the assertion.

Matrix Matching Type

22) Match each example of animal intelligence with the corresponding animal:

Answer:

Scrubjays hiding food when another bird is watching → **C) Scrubjay**

Squirrels hiding food in multiple places and creating fake caches → **D) Squirrel**

A parrot named Alex learning over 100 words and forming sentences → **B) Parrot**

Dogs salivating at the sound of a bell → **A) Conditioning**

Explanation:

1 matches with scrubjays, as they exhibit strategic planning.

2 matches with squirrels, known for deceptive caching.

3 matches with parrots, as Alex demonstrated linguistic creativity.

4 matches with conditioning, as seen in Pavlov's dogs.

Comprehension Type

23) Passage on Tagging:

1) What is tagging, as mentioned in the passage?

Answer: A) Attaching tracking devices to animals for study

Explanation: The passage defines tagging as attaching tracking devices (e.g., GPS trackers) to animals to study their behavior and movements.

2) How do scientists track the movements of migratory birds?

Answer: B) By attaching tracking devices to the birds

Explanation: The passage specifies that scientists use tracking devices like GPS or satellite transmitters to monitor bird movements.

3) What is one benefit of tagging migratory birds?

Answer: C) Gaining insights into migration routes and stopover locations

Explanation: The passage highlights that tagging provides data on migration routes and stopover locations, aiding conservation efforts.

LEARNERS TASK (Page 30 – 32)

Multiple Choice Questions

1) Which of the following is NOT a type of animal behavior?

Answer: C) Reflection

Explanation: Instinct, imitation, and conditioning are recognized types of animal behavior, but reflection is not a standard category in ethology.

2) Imprinting is a behavior commonly observed in:

Answer: B) Ducklings

Explanation: Imprinting is most commonly observed in young animals like ducklings, who form attachments to the first moving object they see after hatching.

3) Conditioning is a type of learned behavior where an animal:

Answer: B) Learns to avoid certain behaviors

Explanation: Conditioning involves learning to associate stimuli with outcomes, often leading to avoiding certain behaviors (e.g., avoiding negative stimuli).

4) Ivan Pavlov is famous for his experiments involving:

Answer: C) Classical conditioning in dogs

Explanation: Pavlov's experiments demonstrated classical conditioning, where dogs learned to associate a bell with food, leading to salivation.

5) Which of the following is an example of conditioning?

Answer: D) A sheep avoiding an electric fence

Explanation: Sheep avoiding an electric fence is an example of operant conditioning, where the animal learns to avoid a negative stimulus (shock).

6) Imitation is a type of behavior where one animal:

Answer: C) Copies another animal's actions

Explanation: Imitation involves an animal observing and replicating the actions of another, a form of social learning.

7) Which of the following is an example of imitation?

Answer: B) A child learning to ride a bike by watching others

Explanation: A child learning by observing others is a clear example of imitation, though this applies to human behavior, which is analogous to animal imitation.

8) Human behavior differs from animal behavior primarily due to:

Answer: C) Increased complexity and self-awareness

Explanation: Humans exhibit greater complexity and self-awareness in their behavior compared to animals, due to advanced cognitive capacities.

9) Which of the following is NOT a method for investigating animal behavior?

Answer: C) Laboratory experiments only

Explanation: Laboratory experiments are one method, but combining field observations, tagging, and controlled experiments are all valid methods. "Laboratory experiments only" is not a standard method.

10) The behavior of cockroaches regarding their living conditions can be studied using:

Answer: A) Choice boxes

Explanation: Choice boxes are used to study cockroach preferences (e.g., dark vs. light, humid vs. dry) by offering controlled environmental options.

11) What is an expected outcome of the cockroach experiment?

Answer: C) Cockroaches preferring dark and humid conditions

Explanation: Cockroaches are known to prefer dark and humid environments, as confirmed by choice box experiments.

12) What type of behavior is observed when a pet dog barks only at strangers?

Answer: C) Conditioning

Explanation: Barking at strangers is a learned response, likely conditioned through experiences associating strangers with potential threats.

13) Ants forming trails to reach food sources is an example of:

Answer: A) Instinct

Explanation: Ants forming pheromone trails is an innate, genetically programmed behavior, characteristic of instinct.

14) Mosquitoes and cockroaches being more active during nighttime is an example of:

Answer: A) Instinct

Explanation: Nighttime activity in mosquitoes and cockroaches is an innate behavior driven by their biological clocks, an example of instinct.

15) Bats hunting during the night is primarily due to:

Answer: A) Instinct

Explanation: Bats' nocturnal hunting is an innate behavior adapted to their environment, driven by instinct.

Advanced Level Questions

16) Which behaviors exemplify human conditioning?

Answer: A, B, C

Explanation:

A) Students feeling excited on Friday afternoons: This is conditioned due to associating Fridays with the weekend.

B) Advertisements associating products with attractive images: This is classical conditioning, linking products with positive stimuli.

C) People avoiding certain foods due to past negative experiences: This is operant conditioning, avoiding foods due to negative outcomes.

D) Dogs sitting by the door when they hear the leash: This is animal conditioning, not human.

17) What are examples of animal behaviors observed in the field?

Answer: A, B, D

Explanation:

A) Birds migrating long distances: Observed in natural habitats.

B) Ants communicating through pheromone trails: Observed in the field.

D) Observing animal families in their natural habitats: Directly describes field observations.

C) Tagging animals to track migration patterns: This is a method, not a behavior.

18) Which behaviors demonstrate intelligence in animals?

Answer: A, B, C, D

Explanation:

A) Scrubjays hiding food when observed: Indicates strategic planning.

B) Squirrels creating fake caches: Shows deception and planning.

C) Dolphins responding to a code language: Demonstrates complex cognitive processing.

D) Alex the Parrot identifying similarities and differences: Shows advanced cognitive abilities.

Assertion and Reason Type

19) Assertion: Animals exhibit instinctual behaviors because they are genetically programmed and do not require learning.

Reason: Spiders naturally spin webs without the need for learning.

Answer: A) Both Assertion and Reason are true, and Reason is the correct explanation for Assertion.

Explanation: The assertion is true, as instincts are genetically programmed. The reason (spiders spinning webs) is a classic example of instinct, supporting the assertion.

20) Assertion: Imprinting is a behavior observed in certain animals where they form social attachments to the first moving object they see after birth.

Reason: Ducklings will follow the first moving object they see after hatching, treating it as their mother.

Answer: A) Both Assertion and Reason are true, and Reason is the correct explanation for Assertion.

Explanation: The assertion defines imprinting accurately, and the reason provides a specific example (ducklings) that explains the assertion.

21) Assertion: Conditioning involves learned responses to stimuli that differ from an animal's natural reactions.

Reason: Pavlov's dogs learned to associate the sound of a bell with food, leading to salivation even in the absence of food.

Answer: A) Both Assertion and Reason are true, and Reason is the correct explanation for Assertion.

Explanation: The assertion correctly describes conditioning as learned responses. The reason (Pavlov's dogs) is a classic example of classical conditioning, explaining the assertion.

Matrix Matching Type

22) Match each human behavior example with the appropriate type of behavior:

Answer:

Students feeling excited on Friday afternoons → **B) Conditioning**

People imitating each other's mannerisms → **C) Imitation**

Responding to a conditioned stimulus like images in advertisements → **B) Conditioning**

Ducklings following the first moving object → **A) Imprinting**

Explanation:

1 matches conditioning, as excitement is a learned response to Fridays.

2 matches imitation, as copying mannerisms is imitative behavior.

3 matches conditioning, as ads create learned associations.

4 matches imprinting, as ducklings exhibit this behavior.

Comprehension Type

23) Passage on Imprinting:

1) What is one example of imprinting mentioned in the passage?

Answer: C) Chicks bonding with the first moving object they see

Explanation: The passage specifically mentions chicks bonding with the first moving object (usually their mother) as an example of imprinting.

2) Why is filial imprinting important for newly hatched chicks?

Answer: C) It enables them to find food and avoid predators

Explanation: The passage states that imprinting helps chicks learn skills like finding food and staying safe from predators.

3) What is the purpose of imprinting in the wild?

Answer: B) To ensure the chicks stay close to their caregiver

Explanation: The passage emphasizes that imprinting keeps chicks close to their caregiver, enhancing survival.