

TEST YOUR KNOWLEDGE

ANIMAL BEHAVIOR I TEST YOUR KNOWLEDGE

1) This scientist is known for having extensive study on imprinting:

- a) Niko Tinbergen
- b) Karl von Frisch
- c) B.F. Skinner
- d) Konrad Lorenz
- e) Ivan Pavlov

2) An example of a fixed action pattern is:

- a) when a person sees lightning and shuts his ears because of the thunder that will follow.
- b) ducklings following their mother everywhere she goes.
- c) a turtle stops retreating into its shell after several taps on it.
- d) stickleback fish attack other male fish only if they have a red belly.
- e) training dogs using treats.

3) The following figure shows the training of a dog in order to sit. This training refers to

- a) operant conditioning.
- b) classical conditioning.
- c) imprinting.
- d) fixed action pattern.
- e) habituation.

4) Geese hatchlings follow the first thing they see. This is (a/an)

- a) imprinting.
- b) classical conditioning.
- c) fixed action pattern.
- d) altruism.
- e) operant conditioning.

5) Birds on the sides of the road take flight when a car approaches. After many cars pass without harming the birds, the birds do not fly anymore when a car approaches. This is an example of

- a) Classical conditioning
- b) Operant conditioning
- c) Imprinting
- d) Habituation
- e) Insight learning

6) Young birds follow the first moving object they see after they are born. This is

- a) Classical conditioning
- b) Operant conditioning
- c) Imprinting
- d) Insight learning
- e) Habituation

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7) Konrad Lorenz investigated a learning mechanism. He explains that it's a learning that occurs during sensitive or critical periods in early life and it cannot be reversed. This is considered as:

- a) Habituation
- b) Operant conditioning
- c) Trial and error learning
- d) Imprinting
- e) Classical conditioning

8) Geese hatchlings follow the first thing they see.

- A. Imprinting
- B. Classical conditioning
- C. Fixed action pattern
- D. Altruism
- E. Operant conditioning

9) Innate, highly stereotypical behavior, which, once begun, is continued to completion no matter how useless.

- A. Imprinting
- B. Classical conditioning
- C. Fixed action pattern
- D. Altruism
- E. Operant conditioning

10) Trial and error learning

- A. Imprinting
- B. Classical conditioning
- C. Fixed action pattern
- D. Altruism
- E. Operant conditioning

11) A simple kind of learning involving loss of sensitivity to unimportant stimuli

- A. Reasoning/insight
- B. Imprinting
- C. Classical conditioning
- D. Habituation
- E. Instinct

12) Geese recognize a ticking clock as "mother" if exposed to it during a critical period shortly after hatching

- A. Reasoning/insight
- B. Imprinting
- C. Classical conditioning
- D. Habituation
- E. Instinct

13) Fish are given food at the same time as a tap on their glass bowl and soon learn to approach when a tap sounds even in the absence of food

- A. Reasoning/insight
- B. Imprinting
- C. Classical conditioning
- D. Habituation
- E. Instinct

ANIMAL BEHAVIOR I TEST YOUR KNOWLEDGE**14) Described the waggle dance in honeybees**

- (A) Niko Tinbergen
- (B) Karl von Frisch
- (C) B. F. Skinner
- (D) Konrad Lorenz
- (E) Ivan Pavlov

15) Imprinting

- (A) Niko Tinbergen
- (B) Karl von Frisch
- (C) B. F. Skinner
- (D) Konrad Lorenz
- (E) Ivan Pavlov

16) Trained dogs to salivate at the sound of a bell

- (A) Niko Tinbergen
- (B) Karl von Frisch
- (C) B. F. Skinner
- (D) Konrad Lorenz
- (E) Ivan Pavlov

17) Classical conditioning

- (A) Niko Tinbergen
- (B) Karl von Frisch
- (C) B. F. Skinner
- (D) Konrad Lorenz
- (E) Ivan Pavlov

18) Taught rats in cages to depress a lever to release food

- (A) Niko Tinbergen
- (B) Karl von Frisch
- (C) B. F. Skinner
- (D) Konrad Lorenz
- (E) Ivan Pavlov

19) Baby geese followed him everywhere

- (A) Niko Tinbergen
- (B) Karl von Frisch
- (C) B. F. Skinner
- (D) Konrad Lorenz
- (E) Ivan Pavlov

20) Explained fixed action pattern

- (A) Niko Tinbergen
- (B) Karl von Frisch
- (C) B. F. Skinner
- (D) Konrad Lorenz
- (E) Ivan Pavlov

ANIMAL BEHAVIOR I TEST YOUR KNOWLEDGE

21) Innate, highly stereotypical behavior that must continue until it is completed

- (A) Fixed action pattern
- (B) Habituation
- (C) Classical conditioning
- (D) Imprinting
- (E) Operant conditioning

22) Trial and error learning

- (A) Fixed action pattern
- (B) Habituation
- (C) Classical conditioning
- (D) Imprinting
- (E) Operant conditioning

23) Sequence of behaviors that is unchangeable and carried to completion once initiated

- (A) Fixed action pattern
- (B) Habituation
- (C) Classical conditioning
- (D) Imprinting
- (E) Operant conditioning

24) Initially, the amoeba moved away from the strong light; but after a while, it resumed its normal movement pattern

- (A) Fixed action pattern
- (B) Habituation
- (C) Classical conditioning
- (D) Imprinting
- (E) Operant conditioning

25) This is the way dogs are trained

- (A) Fixed action pattern
- (B) Habituation
- (C) Classical conditioning
- (D) Imprinting
- (E) Operant conditioning

26) A sophisticated process in which the responses of the organism are modified as a result of experience is called

- (A) fixed action pattern
- (B) habituation
- (C) imprinting
- (D) classical conditioning
- (E) learning

27) This behavior reduces an individual's reproductive fitness while increasing the fitness of the family.

- (A) Altruism
- (B) Agonistic behavior
- (C) Territoriality
- (D) Cooperation
- (E) Imprinting

ANIMAL BEHAVIOR I TEST YOUR KNOWLEDGE

28) You want to train your puppy to wait at the curb until you tell him to cross the road. Your friend advises you to give your dog a treat every time he does as you ask. Your friend is advising that you train the dog using

- (A) operant conditioning
- (B) classical conditioning
- (C) imprinting
- (D) fixed action pattern
- (E) habituation

29) _____ is learning that occurs during a sensitive or critical period in early life and is irreversible for the length of the period.

- (A) Habituation
- (B) Operant conditioning
- (C) Trial and error learning
- (D) Imprinting
- (E) Classical conditioning

30) “Mary had a little lamb; its fleece was white as snow. And everywhere that Mary went, the lamb was sure to go.” The behavior of the lamb is best described as

- (A) habituation
- (B) imprinting
- (C) operant conditioning
- (D) classical conditioning
- (E) fixed action pattern

31) Fixed action patterns are initiated by external stimuli called

- (A) fixed action pattern
- (B) sign stimuli
- (C) agonistic behavior
- (D) dominance hierarchies
- (E) sensitive periods

32) Animals that help other animals are expected to be

- (A) stronger than other animals
- (B) related to the animals they help
- (C) male
- (D) female
- (E) disabled in some way

33) An animal that sacrifices itself for its relatives is exhibiting

- (A) operant conditioning
- (B) kin selection
- (C) classical conditioning
- (D) imprinting
- (E) habituation

34) *Zygops rufitorquis*, a slow-moving weevil, has the same markings as a flesh fly, a fast-flying insect that is difficult for predators to catch. This is an example of which of the following biological phenomena?

- (A) The founder principle.
- (B) Allopatric speciation.
- (C) Adaptive radiation.
- (D) Directional selection.
- (E) Mimicry

ANIMAL BEHAVIOR I MODEL ANSWER 1

1. **d) Konrad Lorenz** – He is famous for studying imprinting in birds, especially geese, showing that they follow the first moving object they see after hatching.
2. **d) stickleback fish attack other male fish only if they have a red belly** – This is a fixed action pattern, an innate behavior triggered by a specific sign stimulus (red belly).
3. **a) operant conditioning** – Training a dog to sit with rewards is operant conditioning, where behavior is modified using reinforcement.
4. **a) imprinting** – Geese following the first thing they see after hatching is imprinting, a rapid learning process during a critical period.
5. **d) Habituation** – Birds stop responding to repeated harmless stimuli (cars passing) over time, which is the definition of habituation.
6. **c) Imprinting** – Young birds following the first moving object they see is a classic example of imprinting.
7. **d) Imprinting** – Lorenz defined this irreversible learning during critical periods in early life as imprinting.
8. **A. Imprinting** – Reiterates that geese hatchlings following the first object is imprinting.
9. **C. Fixed action pattern** – Highly stereotypical, innate behaviors that continue to completion once triggered.
10. **E. Operant conditioning** – Trial-and-error learning in animals (like pressing levers to get food) is operant conditioning.
11. **D. Habituation** – Losing sensitivity to an unimportant stimulus, like amoebas resuming normal movement despite light, is habituation.
12. **B. Imprinting** – Exposure during a critical period causes geese to “recognize” a clock as their mother, classic imprinting.
13. **C. Classical conditioning** – Fish associate a neutral stimulus (tap) with food and respond even without food; this is classical conditioning.
14. **B. Karl von Frisch** – Discovered the waggle dance in honeybees as a way of communicating food location.
15. **D. Konrad Lorenz** – Studied imprinting in animals like geese.
16. **E. Ivan Pavlov** – Trained dogs to salivate to the sound of a bell, classic classical conditioning.
17. **E. Ivan Pavlov** – Classical conditioning demonstration with dogs and bell.
18. **C. B. F. Skinner** – Taught rats to press a lever for food; operant conditioning.
19. **D. Konrad Lorenz** – Baby geese followed him; example of imprinting.
20. **A. Niko Tinbergen** – Studied fixed action patterns and innate behaviors in animals.
21. **A. Fixed action pattern** – Innate, stereotyped behavior that continues until completion.
22. **E. Operant conditioning** – Trial-and-error learning where behavior is shaped by reward or punishment.
23. **A. Fixed action pattern** – Sequence of unchangeable behaviors completed once started.
24. **B. Habituation** – Amoeba stops reacting to repeated non-harmful stimulus; simple learning.
25. **E. Operant conditioning** – Dogs trained by giving rewards for specific behavior.
26. **E. Learning** – Behavior modified through experience in a sophisticated way is called learning.
27. **A. Altruism** – Behavior reducing individual fitness but increasing the fitness of relatives or group.
28. **A. Operant conditioning** – Giving a treat for correct behavior is positive reinforcement, operant conditioning.
29. **D. Imprinting** – Learning during a critical period in early life that is irreversible.
30. **B. Imprinting** – Lamb follows Mary; classic example of imprinting.
31. **B. Sign stimuli** – External cues that trigger fixed action patterns.
32. **B. related to the animals they help** – Altruistic behavior usually targets genetically related individuals to increase inclusive fitness.
33. **B. kin selection** – Sacrificing oneself for relatives’ benefit is kin selection.
34. **E. Mimicry** – Weevil mimics the appearance of a dangerous fly; predators avoid it.