

Nature and Neurobiology

Addiction Science · Answer Key · 10 Questions

1. Which fruit is known to ferment in the wild, causing some animals to exhibit signs of intoxication after consuming it?

- A) Bananas
- B) Marula fruit**
- C) Apples
- D) Mangoes

2. What is the primary neurotransmitter involved in the brain's 'reward system' that reinforces survival behaviors in both humans and animals?

- A) Dopamine**
- B) Adrenaline
- C) Insulin
- D) Serotonin

3. Some species of bees have been observed to prefer nectar that contains trace amounts of what substance?

- A) Caffeine**
- B) Sugar
- C) Alcohol
- D) Salt

4. Which common environmental factor can trigger a stress response in animals, similar to how it influences human addiction patterns?

- A) Heavy rain
- B) Isolation**
- C) High altitude
- D) Clear skies

5. Which substance do researchers often use in controlled laboratory settings to study the brain's reward pathways in animal models?

- A) Glucose**
- B) Water
- C) Oxygen
- D) Protein

6. In animal biology, the 'reward circuit' evolved primarily to encourage which life-sustaining behavior?

- A) Sleeping
- B) Socializing
- C) Eating**
- D) Hunting

7. What happens to the brain's reward receptors when an animal is repeatedly exposed to high-stimulus rewards over a long period?

- A) They increase
- B) They decrease**
- C) They disappear
- D) They double

8. Which group of animals is frequently studied in addiction science due to their highly similar brain structure to humans?

- A) Reptiles
- B) Fish
- C) Rodents**
- D) Birds

9. Some elephants in nature have been observed seeking out the fermented fruit of the Marula tree, which contains what chemical compound?

- A) Ethanol**
- B) Caffeine
- C) Nicotine
- D) Morphine

10. Why do scientists study the effects of environmental enrichment on lab animals?

- A) To increase size
- B) To reduce stress**
- C) To change color
- D) To lower body heat