

QB365 Question Paper Software
10th Standard - Science
Control and Coordination Assertion and reason

Exam Time: 00:20 Hrs

Date: 2025-10-11

Total Marks: 10

Questions:

Assertion and reason

1. **Assertion:** Gustatory receptor detect taste while olfactory receptors detect smell.

Reason: Receptors helps in detecting the environment, they are present on the nerve cells.

Codes

- (a) If both assertion and reason are true and the reason is correct explanation of assertion.
- (b) If both assertion and reason are true but reason is not a correct explanation of assertion.
- (c) If assertion is true and reason is false.
- (d) If both assertion and reason are false.

2. **Assertion:** The brain and spinal cord constitute the central nervous system.

Reason: As it receives the information from all other parts of the body.

Codes

- (a) If both assertion and reason are true and the reason is correct explanation of assertion.
- (b) If both assertion and reason are true but reason is not a correct explanation of assertion.
- (c) If assertion is true and reason is false.
- (d) If both assertion and reason are false.

3. **Assertion:** The motor areas control the movement of voluntary muscles.

Reason: Our hands and leg muscles are the examples of voluntary muscles.

Codes

- (a) If both assertion and reason are true and the reason is correct explanation of assertion.
- (b) If both assertion and reason are true but reason is not a correct explanation of assertion.
- (c) If assertion is true and reason is false.
- (d) If both assertion and reason are false.

4. **Assertion:** Biceps and triceps in arms helps in lifting the weight.

Reason: These muscles are involuntary

Codes

- (a) If both assertion and reason are true and the reason is correct explanation of assertion.
- (b) If both assertion and reason are true but reason is not a correct explanation of assertion.
- (c) If assertion is true and reason is false.
- (d) If both assertion and reason are false.

5.**Assertion:** Plants show two different types of movement - one dependent on growth and the other independent of growth.

Reason: The first one is directional movement and the other one is non directional movement.

Codes

(a) If both assertion and reason are true and the reason is correct explanation of assertion.

(b) If both assertion and reason are true but reason is not a correct explanation of assertion.

(c) If assertion is true and reason is false.

(d) If both assertion and reason are false.

6.**Assertion:** The communication in animals is due to the electrical impulse and chemical communication.

Reason: The communication caused due to chemicals is very slow.

Codes

(a) If both assertion and reason are true and the reason is correct explanation of assertion.

(b) If both assertion and reason are true but reason is not a correct explanation of assertion.

(c) If assertion is true and reason is false.

(d) If both assertion and reason are false.

7.**Assertion:** Diabetic people are advised to take less sugar in their diet.

Reason: The sugar does not dissolve in their body.

Codes

(a) If both assertion and reason are true and the reason is correct explanation of assertion.

(b) If both assertion and reason are true but reason is not a correct explanation of assertion.

(c) If assertion is true and reason is false.

(d) If both assertion and reason are false.

8.**Assertion:** The increased level- of blood sugar is detected by the pancreas and in response produces insulin.

Reason: The timing and amount of hormone released by our body are regulated by feedback mechanisms.

Codes

(a) If both assertion and reason are true and the reason is correct explanation of assertion.

(b) If both assertion and reason are true but reason is not a correct explanation of assertion.

(c) If assertion is true and reason is false.

(d) If both assertion and reason are false.

9.**Assertion:** Auxin helps in growth of tendril.

Reason: The part of tendril in contact with support grows slowly due to less concentration of auxin whereas on free side, there is more concentration where grows rapidly.

Codes

(a) If both assertion and reason are true and the reason is correct explanation of

assertion.

(b) If both assertion and reason are true but reason is not a correct explanation of assertion.

(c) If assertion is true and reason is false.

(d) If both assertion and reason are false.

10. **Assertion (A)** Receptors are usually located in our sense organs and perceive a particular stimulus.

Reason (R) Different sense organs have different receptors for detecting stimuli.

(a) Both A and R are true and R is the correct explanation of A

(b) Both A and R are, but R is not the correct explanation of A

(c) A is true, but R is false

(d) A is false, but R is true

Answers Key:

Assertion and reason

1. (a) If both assertion and reason are true and the reason is correct explanation of assertion.
2. (a) If both assertion and reason are true and the reason is correct explanation of assertion.
3. (b) If both assertion and reason are true but reason is not a correct explanation of assertion.
4. (c) If assertion is true and reason is false.
5. (c) If assertion is true and reason is false.
6. (b) If both assertion and reason are true but reason is not a correct explanation of assertion.
7. (c) If assertion is true and reason is false.
8. (a) If both assertion and reason are true and the reason is correct explanation of assertion.
9. (a) If both assertion and reason are true and the reason is correct explanation of assertion.
10. (b) Both A and R are true, but R is not the correct explanation of A. Receptors receive a particular stimulus which is transmitted by the sensory neuron to the brain that processes the information and sends appropriate response by the motor neurons.