



[PHY2011 S1 2024](#) / Topic 5B Cerebellum and Basal Ganglia (Do I understand the content? - Practice Quiz)

**Started on** Thursday, 13 June 2024, 10:32 PM

**State** Finished

**Completed on** Thursday, 13 June 2024, 10:32 PM

**Time taken** 30 secs

**Grade** 8.00 out of 8.00 (100%)

**Question 1**

Correct

Mark 1.00 out of 1.00

Which of the following about the brain is CORRECT?

Select one:

- ☐ a. The left half of the brain controls the left half of the body
- ☒ b. Sensory and motor cortex lie adjacent to one another. ✓
- ☐ c. All areas of the body periphery are represented equally in the sensory and motor regions.
- ☐ d. The cerebral cortex is made up of a single layer of densely packed cells that generate our sensory awareness.
- ☐ e. The left half of the brain is completely independent of the right half so that one doesn't really know what the other is doing.

The correct answer is: Sensory and motor cortex lie adjacent to one another.

**Question 2**

Correct

Mark 1.00 out of 1.00

The main function of the vestibulocerebellum is

Select one:

- ☒ a. Co-ordination of agonist and antagonist muscles for postural control of the axial skeleton ✓
- ☐ b. Co-ordination of agonist and antagonist muscles for fine motor control of the hands
- ☐ c. Suppression of undesired motor programs
- ☐ d. Planning of sequential voluntary movements
- ☐ e. Coordinate input from the vestibular nucleus and the spinal cord in order to rectify voluntary movement

The correct answer is: Co-ordination of agonist and antagonist muscles for postural control of the axial skeleton

**Question 3**

Correct

Mark 1.00 out of 1.00

The cerebrocerebellum

Select one:

- ☐ a. Would be more important in learning tightrope walking where control of postural balance is critical
- ☐ b. Would be more important in learning a computer game where hand-eye coordination is important
- ☒ c. Would be more important in learning tennis, where coordination of rapid, complex movements involving the whole body is important ✓
- ☐ d. Receives its input from the cerebral cortex and sends its output to the basal ganglia
- ☐ e. None of the above

The correct answer is: Would be more important in learning tennis, where coordination of rapid, complex movements involving the whole body is important

**Question 4**

Correct

Mark 1.00 out of 1.00

The main output cell of the cerebellar cortex is the

Select one:

- ☐ a. Golgi cell
- ☐ b. Granule cell
- ☐ c. Mossy cell
- ☒ d. Purkinje cell ✓
- ☐ e. Golgi and Purkinje cells

The correct answer is: Purkinje cell

**Question 5**

Correct

Mark 1.00 out of 1.00

A person with a disorder of the cerebellum would be more likely to have

Select one:

- ☐ a. Ataxia
- ☐ b. Muscular Rigidity
- ☐ c. Resting tremor
- ☐ d. Intention tremor
- ☒ e. Ataxia and intention tremor ✓

The correct answer is: Ataxia and intention tremor

**Question 6**

Correct

Mark 1.00 out of 1.00

Which of the following is **NOT** a component of the basal ganglia?

Select one:

- ☐ a. Substantia nigra
- ☐ b. Globus pallidus
- ☐ c. Subthalamic nucleus
- ☒ d. Ventral posterior nucleus of thalamus ✓
- ☐ e. Ventrolateral nucleus of thalamus

The correct answer is: Ventral posterior nucleus of thalamus

**Question 7**

Correct

Mark 1.00 out of 1.00

The main function of the basal ganglia appears to be

Select one:

- ☐ a. Planning motor programs
- ☐ b. Execution of motor programs
- ☒ c. Selection of desired motor programs and suppression of undesired ones ✓
- ☐ d. Modulating the function of the cerebellum
- ☐ e. Specifying the sequence and extent of motor programs

The correct answer is: Selection of desired motor programs and suppression of undesired ones

**Question 8**

Correct

Mark 1.00 out of 1.00

Parkinson's disease results from

Select one:

- ☐ a. Reduced serotonin supply to the substantia nigra, pars compacta
- ☐ b. A dopamine deficiency that results in excessive excitation of the thalamus
- ☐ c. A lesion of the subthalamic nucleus that results in excessive excitation of the cerebral cortex
- ☐ d. Underactivity in the indirect pathway that results in hyperkinesia
- ☒ e. A dopamine deficiency that results in excessive inhibition of the thalamus ✓

The correct answer is: A dopamine deficiency that results in excessive inhibition of the thalamus