

## **BIOLOGY**

**BOOKS - PSEB** 

## NEURAL CONTROL AND COORDINATION

Exercise

1. Draw labelled diagrams of the following:

**Brain** 



**2.** Briefly describethe structure of the following: Eye



**3.** Briefly describe the structure of the following: Ear



**4.** Compare the following: Central neural system (CNS) and Peripheral neural system (PNS)



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**5.** Compare the following: Resting potential and action potential



6. Compare the following: Choroid and retina



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**7.** Explain the following processes: Polarisation of the membrane of a nerve fibre



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**8.** Explain the following processes: depolarisation of the membrane of a nerve

fibre



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**9.** Explain the following processes:

Transmission of a nerve impulse across a chemical synapse



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10. Draw labelled diagrams of the following:

Neuron



**11.** Draw labelled diagrams of the following: Brain



12. Draw labelled diagrams of the following:

Eye



**13.** Draw labelled diagrams of the following:



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**14.** Write short notes on the following: Neural coordination



15. Write short notes on the following:

**Forebrain** 



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**16.** Write short notes on the following:

Midbrain



**17.** Write short notes on the following: Hindbrain



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**18.** What is the fucntion of retina in human eye?



**19.** Write short notes on the following: Ear ossicles



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**20.** Give a brief account of : Mechanism of synaptic transmission



21. Give a brief account of: Mechanism of vision



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22. Give a brief account of: Mechanism of hearing



**23.** Answer briefly: How do you preceive the colour of an object?



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**24.** Answer briefly: Which part of our body help us in maintaining the body balance?



25. Answer briefly: How does the eye regulation the amount of light that falls on the retina.



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**26.** Explain the following: Role of  $Na^+$  in the generation of action potential.



**27.** Explain the following: Mechanism of generation fo light-induced impulse in the retina.



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**28.** Define nerve impulse. Which structure in a neuron helps to conduct a nerve impulse, towards the cell body?



**29.** Differentiate between: Myelinated and non-myelinated axons



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**30.** Differentiate between: Dendrites and axons



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**31.** Differentiate between: Rods and cones





**32.** Differentiate between: Thalamus and Hypothalamus



**33.** Differentiate between: Cerebrum and Cerebellum



**34.** Answer the following: Which part of the ear determines the pitch of a sound?



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**35.** Answer the following: Which part of the human brian is the most develped?



**36.** Answer the following: Which part of our central neural system acts as a master clock?

**37.** The region of the vertebrate eye, where the optic nerve passes out of the retina, is called the:

A. fovea

B. iris

C. blind spot

D. optic chiasma

**Answer:** 



**38.** Distinguish between: afferent neurons and efferent neurons



**39.** Distinguish between: impulse conduction in a myelinated never fibre and unmyelinated never fiber



**40.** Distinguish between: aqueous humor and vitreous humor



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**41.** Distinguish between: blind spot and yellow spot



**42.** Distinguish between: cranial nerves and spinal nerves.

