

2018

CBCS

3rd Semester

PHYSIOLOGY

PAPER—C7T

(Honours)

Full Marks : 40

Time : 2 Hours

*The figures in the right-hand margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**Functions of the Nervous System**

1. Answer any five questions :

5×2

(a) Write the difference between Fast pain and phasic pain.

(b) What do you mean by sleep regulating areas of brain ?

Mention the functions of amygdala.

1+1

- (c) State the name of touch and pressure receptors.
- (d) Why basal ganglia is known as primitive motor cortex?
- (e) What are the cerebellar deep nuclei?
- (f) What is the difference between SWS and REM sleep?
- (g) State the functions of neocortex.
- (h) What is Corticobulbar system? Write it's function.

1+1

7. Answer any *four* questions :

4×5

- (a) (i) Write the name of different nuclei associated with the Limbic System.
- (ii) Write the functions of hippocampus as a part of Limbic System.
- (b) (i) Describe the changes of EEG in different stages of sleep and wakefulness.
- (ii) Write the importance of evoked cortical potentials.

2+3

3+2

- (c) (i) What are the segmental distribution of the sympathetic nerves in the spinal cord?  
(ii) Write the effects of autonomic nervous system on the heart, gastrointestinal system and systemic blood vessels. 2+3
- (d) (i) Briefly describe the anatomical organisation of thalamus.  
(ii) What is reticular formation. 3+2
- (e) (i) Shortly discuss the mechanism of posture and movement control.  
(ii) Write the functions of medulla oblongata. 4+1
- (f) (i) How the temperature of our body regulated by the higher centers (nervous control)?  
(ii) What do you understand by withdrawal reflex? 4+1

3. Answer any *one* question : 1×10

(a) (i) Describe the molecular mechanism of long term memory in the light of Habituation and Facilitation.

(ii) Write the cause of hunger and thirst.

(iii) State the different types of disorders relation to learning and memories. 4+4+2

(b) (i) Describe the molecular structure of cerebral cortex.

(ii) Briefly explain the regulation of posterior pituitary secretion.

(iii) Name the drugs that block the adrenergic activity. 4+4+2

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