



Name : .....  
Roll No. : .....  
Invigilator's Signature : .....

**CS/B.PHARM(NEW)/SEM-4/PT-405/2011**

**2011**

**PHYSIOLOGY**

Time Allotted : 3 Hours

Full Marks : 70

*The figures in the margin indicate full marks.*

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

**GROUP – A**

**( Multiple Choice Type Questions )**

1. Choose the correct alternatives from any *ten* of the following : 10 × 1 = 10

- i) The number of lobes in cerebrum are
  - a) 3
  - b) 4
  - c) 2
  - d) 5.
  
- ii) Subarachnoid space is between
  - a) dura mater and arachnoid mater
  - b) arachnoid mater and pia mater
  - c) pia mater and dura mater
  - d) none of these.

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- iii) Vasomotor centre is situated in the
- a) Cerebrum                      b) Cerebellum  
c) Brain stem                    d) None of these.
- iv) Saltatory conduction occurs in
- a) Myelinated fibre            b) Non-myelinated fibre  
c) All of these                    d) None of these.
- v) Perineum is the part of
- a) Vulva                            b) Vagina  
c) Hymen                          d) Uterus.
- vi) CSF is secreted at the rate of
- a) 0.1 ml/min                    b) 1 ml/min  
c) 0.5 ml/min                    d) 5 ml/min.
- vii) The eye balls are moved by
- a) six extrinsic muscle  
b) four intrinsic muscle  
c) three extrinsic muscle  
d) Tenth extrinsic muscle.
- viii) Anosmia means loss of sense of
- a) osmosis                        b) gustation  
c) olfaction                        d) vision.
- ix) Light entering the eye is controlled by
- a) Pupil                            b) Lens  
c) Iris                                d) Retina.



- x) Vomiting centre is present in the
- a) Pons
  - b) Thalamus
  - c) Medulla
  - d) Hypothalamus.
- xi) Norepinephrine is a
- a) hormone
  - b) neurotransmitter
  - c) both of these.
- xii) Astigmatism is
- a) opacity of the lens
  - b) lack of appreciation of one or more colours
  - c) refractive error of the lens
  - d) loss of the sense of smell.

**GROUP – B**

**( Short Answer Type Questions )**

Answer any *three* of the following.  $3 \times 5 = 15$

2. Write a short note on the factors affecting body temperature.
3. Explain the functions and composition of the blood brain barrier.
4. Write a note on the Reticular formation.
5. Explain the physiology of smell.
6. What do you mean by neuroglia ? Classify and explain their function.

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**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following.  $3 \times 15 = 45$

7. What do you mean by PNS ? Classify them. Briefly describe about the cranial nerves. Write down the effects of stimulation of autonomic nervous system.  $2 + 2 + 7 + 4$
8. Describe the mechanism of hearing. What are the tastes appreciated by taste buds ? Describe the mechanism of stimulation of taste buds.  $6 + 3 + 6$
9. Discuss in detail the distribution of ions in a resting nerve fibre. How does an action potential propagate in a nerve fibre ? Name the properties of a nerve fibre.  $3 + 8 + 4$
10. Describe the secretions that pass into the spermatic fluid, including the glands that produce them. Explain the process of ejaculation. Describe the structure and function of the testes.  $5 + 5 + 5$
11. Write short notes on any *two* of the following :  $2 \times 7 \frac{1}{2}$
- i) Thermotaxis and its regulation.
  - ii) Maintenance of posture and balance
  - iii) Ovulation and its regulation
  - iv) Sleep.