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# 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:  $10 \times 1 = 10$ 
  - 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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Vasomotor centre is situated in the iii) a) Cerebrum b) Cerebellum None of these. c) Brain stem d) Saltatory conduction occurs in iv) Non-myelinated fibre a) Myelinated fibre b) All of these None of these. c) d) Perineum is the part of v) a) Vulva b) Vagina c) Hymen d) Uterus. CSF is secreted at the rate of vi) 0.1 ml/mina) b) 1 ml/min 0.5 ml/mind) 5 ml/min. c) The eye balls are moved by six extrinsic muscle a) b) four intrinsic muscle c) three extrinsic muscle Tenth extrinsic muscle. d) viii) Anosmia means loss of sense of osmosis b) gustation a) olfaction d) vision. c) Light entering the eye is controlled by ix)

b)

d)

Lens

Retina.

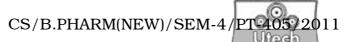
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Iris

Pupil

a)

c)



- 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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# (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.

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