

**CS/B.Pharm/SEM-4/PT-405/2013**

**2013**

**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 for any *ten* of the following :

10 × 1 = 10

i) The transmission of sound waves through the tympanic cavity of the middle ear occurs through

- a) air            b) nerve fibres
- c) bone         d) fluid.

ii) Among the organs largest amount of heat is produced by

- a) Brain         b) Liver
- c) Heart         d) Intestine.

iii) CSF is present in

- a) central canal of spinal cord
- b) right and left ventricles of the heart
- c) between dura and arachnoid membranes
- d) all are these.

iv) Which type of channel is open during repolarization ?

- a) Sodium channel         b) Potassium channel
- c) Calcium channel         d) Magnesium channel.

v) The perception of colour comes from all the following *except*

- a) red cones         b) yellow cones
- c) green cones         d) blue cones.

- vi) The spiral organ is found within the
- a) cochlear duct            b) scala vestibuli
  - c) scala tympani            d) vestibule
  - e) semicircular canals.
- vii) Vomiting centre is present in the
- a) Pons            b) Thalamus
  - c) Medulla            d) Hypothalamus.
- viii) The lumbar, sacral & coccygeal nerves leave the spinal cord & form
- a) mixed nerve            b) rami collection
  - c) cauda equina            d) dermatome junction.
- ix) Pudental arteries supply blood to
- a) ovaries            b) midbrain
  - c) clitoris            d) hypothalamus.
- x) In child bearing age which bacteria is responsible for making vaginal cavity acidic ?
- a) *Lactobacillus acidophilus*
  - b) *E. coli*
  - c) *S. typhi*
  - d) *Cynobacterium tuberculi*.
- xi) Seminal vesicles secretion contributes to
- a) 60% of semen's total volume
  - b) 50% of semen's total volume
  - c) 70% of semen's total volume
  - d) 40% of semen's total volume.
- xii) Which of the following types of papillae has no taste buds associated with them ?
- a) circumvallate            b) filiform
  - c) foliate            d) fungiform.

**GROUP – B**

**( Short Answer Type Questions )**

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

2. What are the different parts of a neurone ? Give a neat diagram of a neurone.
3. Write a short note on mammary glands.
4. Define Reflex. Draw & label a Reflex arc. Illustrate with example. 1 + 2 + 2
5. Write a short note on receptors.
6. Explain the synthesis, storage and release of Acetylcholine.

**GROUP – C**

**( Long Answer Type Questions )**

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

7. Briefly discuss the structure & functions of uterus. Discuss the series of phases in menstrual cycle. 6 + 9
8. What do you mean by decussation ? How it is controlling the cerebral motor reflex ? How are your memory, intelligence, speech, complex movement controlled by cerebrum ? 2 + 3 + 10
9. a) What is pyrexia ?  
 b) What do you mean by core and shell temperature ?  
 c) Write down the symptoms of hypothermia.  
 d) Discuss different factors affecting body temperature. 2 + 3 + 3 + 7
10. a) Explain the physiology of hearing.  
 b) Write a short note on Olfactory bulbs.  
 c) Give an example of taste modifier protein and its function. 8 + 5 + 2
11. a) Classify and characterize the different stages of sleep.  
 What is circadian rhythm ?  
 b) Explain the action of adrenergic receptors on the heart and CIT. 8 + 7

=====