



Name :
Roll No. :
Invigilator's Signature :

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.*

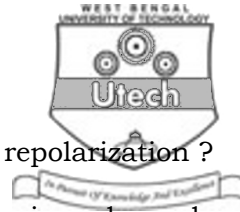
GROUP - A

(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.

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[Turn over



- 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) Pudanal 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. $8 + 7$