



Name :
Roll No. :
Invigilator's Signature :

CS/B.PHARM/SEM-4/PT-405/2012

**2012
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)

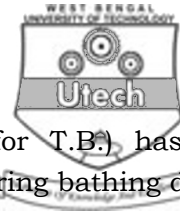
1. Choose the correct alternatives for any *ten* of the following :

10 × 1 = 10

- i) Which cranial nerve supply parasympathetic innervations to the visceral organ present in thorax and abdomen ?
- a) Oculomotor b) Vagus
c) Facial d) Glossopharyngeal.
- ii) Pavlov demonstrated experiment on a dog to show
- a) Superficial Reflex b) Deep Reflex
c) Conditioned Reflex d) Unconditioned Reflex.
- iii) The innermost layer of testes is
- a) *Tunica albuginea* b) *Tunica vaginalis*
c) *Tunica vasculosa* d) *Tunica semenifera*.

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[Turn over



- iv) A person on streptomycin therapy (for T.B.) has a greater risk of drowning in river water during bathing due to
 - a) damage of optical righting reflex
 - b) damage of tonic neck reflex
 - c) damage of grasp reflex
 - d) damage of vestibular reflex.
- v) Decussation of pyramids occurs in
 - a) Pons
 - b) Medulla oblongata
 - c) Midbrain
 - d) Cerebral cortex.
- vi) Merkel's discs are receptors which detect
 - a) pain
 - b) change in blood O₂/CO₂ tension
 - c) touch-pressure
 - d) glucose level in blood.
- vii) Body temperature is regulated by
 - a) Hypothalamus
 - b) Cerebrum
 - c) Medulla oblongata
 - d) Cerebellum.
- viii) The clitoris is derived from the same embryonic tissue as the
 - a) Scrotum
 - b) Penis
 - c) Prostate
 - d) Vagina.
- ix) Normal auxiliary temperature in human body is
 - a) 98.4°F
 - b) 97.4°F
 - c) 99.4°F
 - d) 98.9°F.
- x) Non Myelinated portions of a nerve fibre are called
 - a) Demyelination of Ranvier
 - b) Leaves of Ranvier
 - c) Nodes of Ranvier
 - d) Buttons of Ranvier.



- xi) Withdrawal reflex is the example of :
- Mono synaptic reflex arc
 - Disynaptic reflex arc
 - Multisynaptic reflex arc
 - Complex reflex arc.
- xii) The example of light receptor is
- Organ of corti
 - Rod cell
 - Pacinian corpuscles
 - Free nerve terminals.

GROUP - B

(Short Answer Type Questions)

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

- Write a short note on prostate gland.
- What is the sodium potassium pump ? Explain its contribution to resting membrane potential.
- Write short notes on the following : $2 \times 2\frac{1}{2} = 5$
 - Functions of C.S.F.
 - Primary motor areas in cerebral cortex (only its location, cell bodies present, function)
- Briefly discuss the process of spermatogenesis.
- What do you mean by Hypothermia ? Discuss about sweating and its regulation by ANS. $2 + 3$



GROUP – C

(Long Answer Type Questions)

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

7. a) Describe the structure of the eye with the help of a labeled diagram.
- b) Describe the different layers of the retina.
- c) What is meant by visual cycle ? $7 + 6 + 2$
8. Define sleep. Classify & characterize the different stages of sleep. Discuss briefly the role of Reticular Activating System (RAS) in sleep. $2 + 8 + 5$
9. a) Discuss the various Reflexes associated with the maintenance of posture & equilibrium.
- b) What is Romberg's Sign & its significance. ? $12 + 3$
10. What are the different types of cholinergic receptor ? Briefly discuss the functions of both sympathetic and parasympathetic effects on Heart and GIT. Write about synthesis, storage and release of Ach at synaptic junction. $2 + 6 + 6 + 1$
11. Briefly discuss the structure and functions of the uterus.
Discuss the process of oogenesis.
Mention the hormones involved in the menstrual cycle. $6 + 5 + 4$