



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/B.PHARM (Old)/SEM-3/PT-305/2009-10  
2009**

**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 of the following :

$$10 \times 1 = 10$$

- i) In resting state flowing of blood through a kidney per minute is approximately
  - a) 200-300 ml per min
  - b) 400-500 ml per min
  - c) 1200-1300 ml per min
  - d) 5000-6000 ml per min
  - e) none of these.
- ii) Glomerular filtration pressure is
  - a) 15 mm of Hg                              b) 25 mm of Hg
  - c) 35 mm of Hg                              d) 65 mm of Hg
  - e) 100 mm of Hg.



- iii) The normal glomerular filtration rate is approximately
  - a) 20 ml per min
  - b) 50 ml per min
  - c) 120-125 ml per min
  - d) 300 ml per min
  - e) none of these.
- iv) The anti-diuretic hormone ( ADH ) is secreted by
  - a) Renal cortex
  - b) Renal medulla
  - c) Anterior pituitary
  - d) Posterior pituitary
  - e) None of these.
- v) Average weight of the pituitary gland is
  - a) 0·1 gm
  - b) 0·5 gm
  - c) 1·0 gm
  - d) 5·0 gm
  - e) 1·0 gm.
- vi) Atrophy of the anterior pituitary in infants and children produces
  - a) Dwarfism
  - b) Gigantism
  - c) Acromegaly
  - d) Mongolism
  - e) all of these.
- vii) Secretion of Parathormone is controlled by
  - a) Anterior pituitary
  - b) Posterior pituitary
  - c) Hypothalamus
  - d) Blood calcium level
  - e) all of these.
- viii) Features of hypoglycaemia include
  - a) Tremors
  - b) Flushing, polar and perspiration
  - c) Delifirm, coma and convulsion
  - d) Loss of deep reflex
  - e) All of these.



- ix) Glucagon is secreted by  $x$  cells of the islets of langerhans
- It is polypeptide in nature
  - It has been synthesized in laboratory
  - It is also present in mucosa of stomach and duodenum
  - Its mode of action is unknown
  - It is polysaccharide in nature.
- x) Melatonin is a hormone secreted by
- Anterior pituitary
  - Posterior pituitary
  - Hypothalamus
  - Pineal body
  - Sympathetic nerve endings.

### **GROUP – B**

#### **( Short Answer Type Questions )**

Write short notes of the following.  $3 \times 5 = 15$

2. Blood group
3. Platelets
4. Coagulation of blood.

### **GROUP – C**

#### **( Long Answer Type Questions )**

Answer the following.  $3 \times 15 = 45$

5. Write the structure, function, deficiency diseases of haemoglobin. What do you mean by haemolysis ? Describe the process in brief.  $8 + 7$



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6. Write in brief the structure and functions of nephron. What are the factors affecting the formation of urine ? 10 + 5
7. Why is blood called connective tissue ? Write about the physiological properties, composition and function of blood.

2 + 13

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