



Name :

Roll No. :

Invigilator's Signature :

CS / B.PHARM(NEW) / SEM-2 / PT-205 / 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) Blood is a

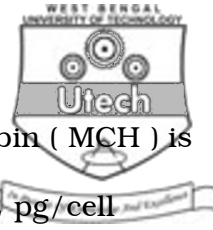
- | | |
|--------------------|-----------------------|
| a) muscular tissue | b) epithelial tissue |
| c) cardiac tissue | d) connective tissue. |

ii) Phaeochromacytoma is usually a benign tumour, occurring in

- | | |
|--------------------|------------------|
| a) Thyroid | b) Parathyroid |
| c) Adrenal Medulla | d) All of these. |

2255

[Turn over



- iii) The normal value of mean cell haemoglobin (MCH) is
- a) 50 - 54 g/100 ml b) 27 - 32 pg/cell
- c) 13 - 18 g/100 ml d) 11-16 g/ml.
- iv) Right circumflex artery is a
- a) coronary artery b) hepatic artery
- c) pulmonary artery d) renal artery.
- v) Cardiac output is
- a) peripheral resistance \times heart rate
- b) heart rate \times tidal volume
- c) stroke volume \times heart rate
- d) none of these.
- vi) Kupffer cells are present in
- a) Lungs b) Liver
- c) Pancreas d) Small intestine.
- vii) Beta cells of pancreas secrete
- a) ADH b) Glucagon
- c) Insulin d) LH.
- viii) The name of hormone, secreted by pituitary, which facilitates growth of ovarian follicle is
- a) Progesteron b) LH
- c) FSH d) None of these.

CS/B.PHARM(NEW)/SEM-2/PT-205/2012



- ix) External respiration is known as gaseous exchange between
- a) Alveoli and blood stream
 - b) Alveoli and body cells
 - c) Blood and body cells
 - d) Bronchi and lungs.
- x) Urinary excretion rate depends on
- a) Glomerular filtration rate
 - b) Tubular reabsorption
 - c) Tubular secretion rate
 - d) All of these.
- xi) The normal number of cardiac cycle per minute ranges from
- a) 2 - 10
 - b) 150 - 200
 - c) 60 - 80
 - d) all of these.
- xii) Hypokalaemia represents the decrease of which of the following ions ?
- a) Chloride
 - b) Potassium
 - c) Iron
 - d) Calcium.



GROUP – B

(Short Answer Type Questions)

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

2. Write a short note on E.C.G. and its significance.
3. Briefly describe the structure of a nephron.
4. Explain the Physiological conditions altering cardiac output.
5. Differentiate between 'Glycosuria' and 'polyuria'.
6. Write a short note on the factors affecting urine formation.

GROUP – C

(Long Answer Type Questions)

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

7. Discuss about the structure and function of liver and spleen. $10 + 5$
8. Write how hemoglobin is broken down in our body. Discuss about the intrinsic pathway of blood coagulation. Name two anticoagulants and their mode of action. What do you mean by ABO blood group system ? $2 + 6 + 3 + 4$
9. Write down the secreting organ and the functions of the following : 3×5
 - i) Thyroid hormone
 - ii) Insulin
 - iii) Glucocorticoids.
10. Name the blood cells. Enumerate the physiological functions of blood. What is homeostasis ? Write briefly about hemolytic disease in the newborn. $4 + 4 + 2 + 5$
11. Define the term 'BP' and discuss short term and long term regulation of BP. Discuss the factors affecting BP. $8 + 7$

