Name :	
Roll No. :	A Dear of Cambridge and Exclored
Invigilator's Signature :	

CS/B.OPTM/SEM-1/BO-102/2012-13 2012 PHYSIOLOGY (GENERAL)

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)

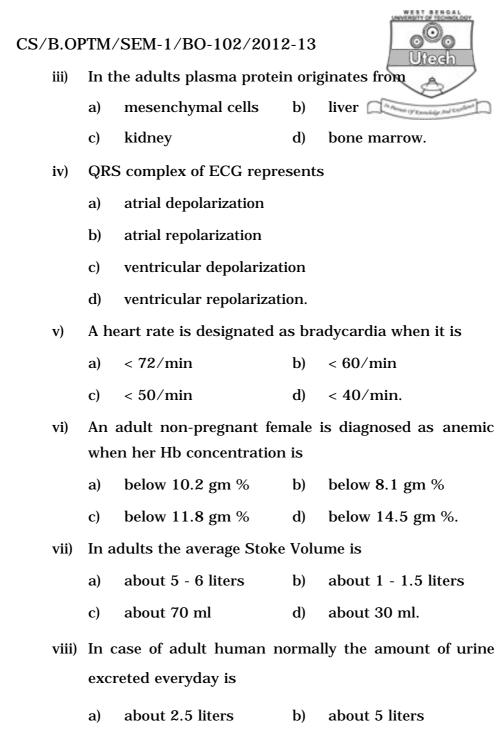
1. Choose the correct alternatives for any *ten* of the following :

 $10 \times 1 = 10$

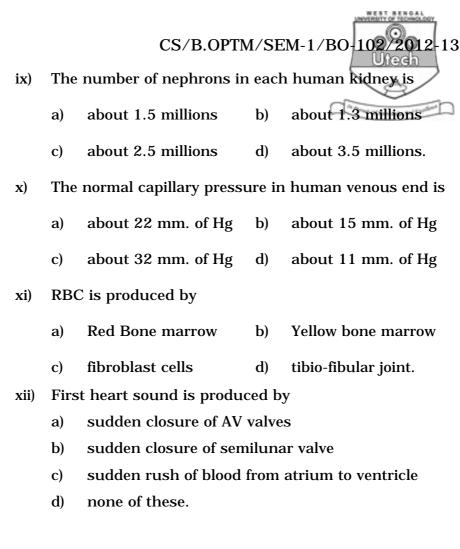
- i) A healthy R.B.C. should be
 - a) nucleated
 - b) biconcave
 - c) bigger than a monocyte
 - d) biconvex.
- ii) Group *B* blood contains
 - a) agglutinogen A in the RBC and agglutinin α in the plasma
 - b) agglutinogen *B* in the RBC and agglutinin α in the plasma
 - c) agglutinogen A in the RBC and agglutinin β in the plasma
 - d) agglutinogen *B* in the RBC and agglutinin β in the plasma.

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c) about 1.5 liters d) about 3.5 liters.



GROUP - B

(Short Answer Type Questions)

Write short notes on any three of the following.

 $3 \times 5 = 15$

- 2. Glomerular Apparatus.
- 3. Nucleus.
- 4. Difference between isotonic and isometric contractions.

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- 5. WBC.
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GROUP - C

(Long Answer Type Questions) Answer any three of the following.

- 6. Give the classification of muscle. Give the differences between single and multiunite muscle fibers of smooth muscle. Mention the functions of smooth muscle. How do you differentiate cardiac muscle from skeletal muscle ? 3 + 3 + 3 + 3 + 3Mention the causes of muscle fatigue.
- 7. What is blood pressure ? Define systolic pressure and pulse pressure. Explain the factors regulating blood pressure. 2 + 4 + 5 + 4State the significance of blood pressure.
- 8. Describe cardiac cycle.
- Describe briefly the nephron with a labelled diagram. The 9. renal threshold for glucose is 180 mg/100 ml of blood. Explain. Describe briefly the reabsorption process of nephron.

8 + 3 + 4

15

 $3 \times 15 = 45$

10. Describe the mechanism of formation of action potential in a nerve fibre. Give diagram. What are saltatory conduction and point to point propagation of nerve impulse? 11 + 4

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