GV 3003
First Year MBBS Examination
I MBBS Physiology Paper 1
Date: 12-06-2016
Time: 3 hours
Max Marks: 50

Instructions: 1. Answer to the points. 2. Figure to the right indicates marks. 3. Use separate answer books for each section. 4. Draw diagrams wherever necessary. 5. Write legibly.

Section 1

1. **Explain in detail: (any two)** (10)
   a. Explain "deglutition reflex" in detail. Write note on 'Achalasia cardia'? (A.270) (8.461)
   b. Write in detail about cellular immunity'. Write note on helper T cells
   c. What is composition of Pancreatic juice? Write note on acute pancreatitis. (A.246) (8.482)
2. **Write brief notes on (any two)** (6)
   a. Explain properties of action potential in skeletal and cardiac muscle fibers.
   b. Write in detail about active transport across cell membrane
   c. Functions of saliva (A.225) (B.739)
3. **Write brief on (any one)** (3)
   a. Name various cell organelles. Write in detail about structure and functions of cell membrane
   b. Write in details about various cell junctions
4. **Give brief on (any two)** (6)
   a. Reticulo-endothelial system
   b. Innate immunity (A.107) (B.139)
   c. Blood coagulation tests (A.133) (8.163)

Section 2

1. **Explain in detail (any two)** (10)
   a. Write in detail about role of anterior hypothalamus in regulation of body temperature. Write note on mechanism of generation of fever
   b. Differences between sympathetic and parasympathetic systems
   c. Write in detail about various types and treatment of hypoxia (A-756) (8.352)
2. **Write briefly on (any two)** (6)
   a. Various leads of ECG
   b. Baro-receptor (Sino-aorti reflex (A.633)
   c. Define 'shock' and give its types. Give physiological basis of treatment of shock. (A-684)
3. **Write briefly on (any one)** (3)
   a. Mechanics of inspiration (A.714) (8.297.316)
   b. Effects of high pressure of gases on body
4. **Answer in 2-3 sentences (any 6)** (6)
   a. Explain mechanism of action of EDTA as anticoagulant
   b. Name 2 anta-acids
   c. Give partial pressures value for oxygen and carbon di-oxide in venous blood
   d. Name two muscles involved in forceful

expiration

e. Define dead space (A.732) (8.318)
f. Name two parasympathomimetic drugs
g. Give two examples of passive immunity
h. Name two functions of AV node (A.529) (8.188)
i. Which type of antibody has largest number of antigen binding sites?
j. Name two indications of transfusion of fresh frozen plasma

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