PCI Sem-I

Seat Number

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Sem-1/9

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BP 101-T
Human Anatomy and Physiology-I
(711101)

P. Pages : 3

Time : Three Hours

Max. Marks : 75

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.
5. Draw well labelled diagram when necessary.

1. Answer all the questions. **20**

a) Human cell membrane is made up of.
   i) Ergesterol ii) Cholesterol
   iii) Carbohydrate iv) Protein

b) What is the role of Na^+ K^+ ATPase.
   i) Throw 03 Na^+ outside and take 02 K^+ inside
   ii) Throw 01 Na^+ outside and 01 K^+ inside
   iii) Throw 02 Na^+ outside and 01 K^+ inside
   iv) Throw 04 Na^+ outside and 02 K^+ inside

c) Action potential is
   i) Series of Hyperpolarization followed by series of depolarization.
   ii) Series of Repolarization followed by series of Depolarization.
   iii) Series of Depolarization followed by series of Hyperpolarization.
   iv) Series of Depolarization followed by series of Repolarization.

d) Mitochondria is a power house of
   i) CAMP ii) GMP
   iii) ATP iv) GTP

e) Cervical bone consist of
   i) 05 Bones ii) 04 Bones
   iii) 09 Bones iv) 07 Bones

f) Which is largest bone of human body.
   i) Radius ii) Femur
   iii) Humerous iv) Clavicle

g) Stimulation of SA node leads to increases.
i) Automaticity ii) Contractility
iii) Conductance iv) Repolarization

h) Effect of sympathetic system on bronchial muscle.
i) Contraction ii) Relaxation
iii) Dilations iv) None of the above

i) Normal rhythm is ------- to ------- beats per minute
i) 80 to 100 ii) 60 to 100
iii) 70 to 90 iv) 50 to 80

j) MALT
i) Mucosa aggregated lymphoid tissue
ii) Membrane associated lymphoid tissue
iii) Membrane aggregated lymphoid tissue
iv) Mucosa associated lymphoid tissue

k) Life span of erythrocytes
i) 120 days ii) 100 days
iii) 90 days iv) 110 days

l) Sympoters
i) Movement of two ions in opposite directions
ii) Movement of one ions in same direction
iii) Movement of two ions in same direction
iv) None of the above

m) In which disease i. o. t. increases leads to damaging optic nerve.
i) Glaucoma ii) Presbyopia
iii) Cataract iv) Retinopathies

n) Parasympathetic system is also called as
i) Fight/ Flight System ii) Rest / Digest System
iii) Digest / Flight System iv) Rest / Flight System.

o) Normal range of Hemoglobin in male
i) 15 to 18 ii) 13 to 15
iii) 12 to 20 iv) 13 to 18

p) Normal cardiac output is
i) 4 L/m ii) 6 L/m
iii) 5 L/m iv) 2 L/m

q) Which is not body cavity
i) Cranial cavity ii) Pelvic cavity
iii) Thoracis cavity iv) Gall bladder cavity

r) When metabolic rate is increases body ------ rises
i) Temperature ii) Heart rate
iii) Blood pressure iv) Blood sugar

s) Long term regulation of blood pressure controlled by
   i) RAAS ii) Chemo receptor
   iii) Baro receptor iv) Both chem & Baro receptor

t) Leukemia is condition in which production of ------ increases.
   i) WBC ii) RBC
   iii) Hemoglobin iv) Platelets

2. Solve **any two**. 20

a) Draw the well labelled diagram of eye and explain the physiology of vision.

b) Describe the cardiac cycle. Explain Regulation of blood pressure.

c) Define joint, classify joint and explain types of movement of synovial joints.

3. Solve **any seven** of the following. 35

a) Draw t a well labelled diagram of cell and explain cell organelles.

b) Explain different types of tissues.

c) What are the effects of sympathetic of Parasympathetic nervous system on different parts of body.

d) List the parts of lymphatic system. Describe three main functions of lymphatic system.

e) Explain the physiology of Muscle contraction.

f) Enlist the layers of skin. Explain the functions of skin.

g) Write a note on neuromuscular junctions.

h) What is Homeostasis? Explain Negative and Positive feed back mechanism.

i) Enlist the disorders of blood and explain any two disorders.

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