

ASTU 2nd Sem. (Reg) - 28.05.15

Total No. of printed pages = 5

PY 132201

Roll No. of candidate

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B. Pharm 2nd Semester End-Term Examination

HUMAN ANATOMY AND PHYSIOLOGY-II

Full Marks - 100 - Pass Marks - 35 - Time - Three hours

The figures in the margin indicate full marks for the questions.

1. Objective type questions. Fill in the blanks :

1×10=10

(i) Relaxation of hepatopancreatic sphincter by allows bile to enter duodenum.

(ii) The gastric acid is secreted from cell of stomach.

(iii) Average partial pressure of oxygen and carbon dioxide in venus blood are and respectively.

(iv) The other term used for Myopia is

(v) The presence of theta wave in EEG of adult indicates

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Choose the correct ones from the options given below :

(vi) The near point of vision in adult is

- (a) 5 cm
- (b) 10 cm
- (c) 15 cm
- (d) 20 cm

(vii) Prevertebral sympathetic ganglia are involved with the innervation of the

- (a) abdominal organs
- (b) thoracic organs
- (c) head
- (d) arrector pili

(viii) Filtration at the glomerulus is inversely related to

- (a) water reabsorption
- (b) capsula hydrostatic pressure
- (c) arterial blood pressure
- (d) acidity of the urine.

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(2)

(ix) The limbic system is a functional system of brain that regulates

- (a) emotional responses
- (b) autonomic nervous system
- (c) proper balance and posture
- (d) intellectual functions.

(x) Parathyroid hormone

- (a) increases bone formation and lowers blood calcium levels
- (b) increases calcium excretion from the body
- (c) decreases calcium absorption from the gut
- (d) demineralizes bone and raises blood calcium levels.

2. Answer any *ten* questions : 4×10=40

- (a) Explain why fatty stools result from the absence of bile or pancreatic juice.
- (b) Indicate the function of the Kupffer cells and the hepatocytes of the liver.
- (c) Write the six functional activities of digestive system.
- (d) Mention the different movements with their functions of alimentary tract.

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- (e) What is it about the structure of the respiratory membrane that makes the alveoli ideal site for gas exchange ?
- (f) What is chloride shift ? Write its significance.
- (g) Why human breathing is called negative pressure breathing ? Explain the mechanism of breathing.
- (h) Describe the role of the cerebellum in maintaining smooth, coordinated skeletal muscle activity.
- (i) Explain the different types of impulse summation in CNS.
- (j) Why sympathetic nervous system is called nervous system of emergency ?
- (k) Write the name and function of cranial nerve having both motor and sensory function.
- (l) What is vesica recta ? Write its role in concentration of urine.
3. Answer any *five* questions : $5 \times 10 = 50$
- (a) What are different digestive secretions ? Write the role of local hormones in regulation of different digestive secretions. Explain the chemical digestion of protein. $2+4+4=10$
- (b) Describe with labeled diagram the structure of nephron and mechanism of urine formation. Write the role of renin in fluid balance. $4+6=10$
- (c) Write the names of the hormones secreted by adrenal cortex. Discuss the physiological role of adrenocorticoids. $4+6=10$
- (d) Discuss the organization and role of different functional areas of cerebral cortex. 10
- (e) Describe the structure of male reproductive system. Write the process of spermatogenesis. $7+3=10$
- (f) What do you mean by special senses ? Describe the structure of eye and role of each part in visual sensation. $2+8=10$
- (g) What do you mean by ANS ? Classify ANS and explain their basic function. Discuss the neuro-humoral transmission in the ANS. $1+3+6=10$