

B.Pharm. Ist Year (CBCS Pattern) Sem-II
BP 201T - Human Anatomy and Physiology-II

P. Pages : 3

Time : Three Hours



GUG/W/22/10878

Max. Marks : 75

Notes : 1. All questions are compulsory.

1. Multiple Choice Questions.

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- i) Which of the following is absent in the gray matter?
 - a) Cell bodies
 - b) Dendrites and axon terminals
 - c) Myelinated axons
 - d) Unmyelinated axons
- ii) An inhibitory neurotransmitter is that which causes ----- of the postsynaptic membrane:
 - a) Repolarization
 - b) Hyperpolarization
 - c) Depolarization
 - d) Both A and B
- iii) Which part of brain stem is associated with control of breathing?
 - a) Midbrain
 - b) Pons
 - c) Medulla oblongata
 - d) Both B and C
- iv) Which part of the brain regulates auditory and visual reflexes and contains nuclei associated with cranial nerves III and IV?
 - a) Midbrain
 - b) Thalamus
 - c) Pons
 - d) Hypothalamus
- v) Which of the following is a two neuron or monosynaptic reflex arc?
 - a) Patellar reflex
 - b) Tendon reflex
 - c) Flexor reflex
 - d) Crossed extensor reflex
- vi) One of the following is not an energy yielding food:
 - a) Carbohydrate
 - b) Fat
 - c) Vitamins and minerals
 - d) Protein
- vii) Age, Gender, Body size and climate determine the
 - a) Growth rate of an individual
 - b) Basal metabolic rate
 - c) Basal hydrolysis rate
 - d) Pressure influence on growth rate
- viii) The maximum amount of air which can be expired after the deepest inspiration is called -----
 - a) Vital capacity
 - b) Tidal volume
 - c) Peak inspiratory volume
 - d) None of the above
- ix) Smoking is one of the causes of -----
 - a) Hypoxia
 - b) Emphysema
 - c) Narcosis
 - d) None of the above
- x) The internal lining of trachea has a membrane of:
 - a) Ciliated endothelium
 - b) Squamous epithelium
 - c) Connective tissue cells
 - d) Mucous cells

- xi) Which of the following occurs during the chloride shift?
 - a) Chloride is removed from the erythrocyte
 - b) Chloride is exchanged for bicarbonate
 - c) Bicarbonate is removed from the erythrocyte
 - d) Bicarbonate is removed from the blood.
- xii) Surfactant helps to prevent the alveoli from collapsing by -----
 - a) Humidifying the air before it enters
 - b) Warming the air before it enters
 - c) Interfering with the cohesiveness of water molecules, thereby reducing the surface tension of alveolar fluid
 - d) None of the above
- xiii) Which of the following is not a stimulus for breathing?
 - a) Rising carbon dioxide levels b) Rising blood pressure
 - c) Arterial P_{O_2} below 60 mm Hg d) Arterial phresulting from CO_2 retention
- xiv) The lung volume that represents the total volume of exchangeable air is the -----
 - a) Tidal volume b) Vital capacity
 - c) Inspiratory capacity d) Expiratory reserve volume
- xv) Renal fascia is the name of:
 - a) Tissue of medulla b) Tissue of bladder
 - c) Fibrous tissue around kidney d) Fibrous tissue inside kidney
- xvi) Henle's loops are:
 - a) U - shaped b) V - shaped
 - c) L - shaped d) Shapeless
- xvii) Micturition is a term applied to the movement of urine out of the:
 - a) Bowman's capsule b) Renal pelvis
 - c) Ureters d) Bladder
- xviii) Excretory unit of a kidney is:
 - a) Bowman's capsule b) Glomerulus
 - c) Nephron d) Henle's loop
- xix) Percentage of water in the urine is generally about:
 - a) 55% b) 95%
 - c) 99% d) 59%
- xx) Which of the following is not true about micturition reflex?
 - a) It is initiated by stretch receptors in the ureters
 - b) It relies on parasympathetic impulses from the micturition center in S2 and S3
 - c) It results in contraction of the detrusor muscle
 - d) It inhibits motor neurons in the external urethral sphincter.

2. Solve the follow **any two**.

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- Describe the anatomy and physiology of respiration system.
- Describe the physiology of urine formation.

c) Name the hormones secreted from the adrenal cortex and explain the function?

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

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a) Draw a well labeled diagram of liver. Mention the functions of liver.

b) Explain the nervous control of respiration.

c) Explain the digestion of protein in detail.

d) How kidneys help in maintaining electrolyte balance?

e) Draw and label the Female reproductive system.

f) Describe the exocrine function of pancreas.

g) Explain in short functions of medulla oblongata.

h) Give the composition and functions of saliva

i) What is CSF? What are the functions?
