

341250(41)

**B. Pharmacy (Second Semester) Examination,
April-May 2020**

(PCI Scheme)

(Pharmacy Branch)

HUMAN ANATOMY & PHYSIOLOGY-II

THEORY (BP201T)

Time Allowed : Three hours

Maximum Marks : 75

Note : All questions are compulsory : however, internal choice is provided in question 2 and question 3. Draw well-labelled diagrams wherever necessary in question 2 and question 3.

1. Attempt all sub-questions. Each sub-question carries 1 marks.

20

(i) Human heart is made-up of how many chambers?

(a) 3

(b) 4

- (c) 5
 - (d) 6
- (ii) Which blood group is considered as universal donor?
- (a) AB +ve
 - (b) AB -ve
 - (c) O +ve
 - (d) O -ve
- (iii) Pepsin is mainly involved in the digestion of :
- (a) Fats
 - (b) Carbohydrates
 - (c) Proteins
 - (d) None of the above
- (iv) The maximum volume of air contained in the lung by a full forced inhalation is called
- (a) Total lung capacity
 - (b) Tidal volume
 - (c) Vital capacity
 - (d) Inspiratory capacity

- (v) In a typical menstrual cycle of 28 days, what is the most likely fertile period?
- (a) Days 1 to 5
 - (b) Days 5 to 10
 - (c) Days 11 to 14
 - (d) Days 15 to 16
- (vi) Which one of the followings is NOT the disorder of the blood?
- (a) Hemophilia
 - (b) Leukemia
 - (c) Arrhythmia
 - (d) Anemia
- (vii) Which type of blood cells are involved in the blood clotting?
- (a) RBCs
 - (b) Platelets
 - (c) Lymphocytes
 - (d) Neutrophils
- (viii) Which one of the followings is the smallest diameter blood vessel?

- (a) Vein
 - (b) Capillary
 - (c) Arteriole
 - (d) Artery
- (ix) Nodules of lymphoid tissue found in wall of intestinal tract are called
- (a) Microvilli
 - (b) Peyer's patches
 - (c) DiGeorge's nodes
 - (d) Hashimoto's nodes
- (x) Which one of the followings is a disease of cardiovascular system?
- (a) Asthma
 - (b) Peptic ulcer
 - (c) Hypertension
 - (d) Glomerulonephritis
- (xi) Which hormone promotes spermatogenesis?
- (a) Prolactin
 - (b) Progesterone

[5]

- (c) Estrogen
 - (d) Testosterone
- (xii) Which artery supplies blood to the heart muscles?
- (a) Coronary artery
 - (b) Subclavian artery
 - (c) Radial artery
 - (d) Carotid artery
- (xiii) Which one of the following statements is NOT correct for glomerulus?
- (a) It is the filtering unit of the kidney
 - (b) It is a tuft of capillaries
 - (c) It is involved in water reabsorption from the filtrate into the blood
 - (d) It is enclosed by Bowman's capsule
- (xiv) Rh factor is the component of :
- (a) Heart
 - (b) Blood
 - (c) Lungs
 - (d) Kidneys

- (xv) In respiratory system, the exchange of gases takes place in :
- (a) Trachea
 - (b) Bronchus
 - (c) Bronchioles
 - (d) Alveoli
- (xvi) Which one of the followings regulates rate and force of contraction of heart?
- (a) Central nervous system
 - (b) Somatic nervous system
 - (c) Autohomic nervous system
 - (d) Enteric nervous system
- (xvii) The Renin-Angiotensin System (RAS) is mainly involved in :
- (a) Regulation of blood pressure
 - (b) Regulation of gastric acid secretion
 - (c) Regulation of menstruation
 - (d) None of the above
- (xviii) Which one of the following arteries carries deoxygenated blood?

[7]

- (a) Aorta
- (b) Renal artery
- (c) Pulmonary artery
- (d) Caroid artery

(xix) Which gland is associated with female reproductive system?

- (a) Skene's gland
- (b) Prostate gland
- (c) Seminal vesicle
- (d) Cowper's gland

(xx) Which one of the followings mainly regulates gastric acid secretion?

- (a) Central nervous system
- (b) Somatic nervous system
- (c) Sympathetic nervous system
- (d) Parasympathetic nervous system

2. Answer any **two** sub-questions. Each sub-question carries 10 marks. 2×10=20

- (i) Explain external and internal structure of liver and state its functions.

- (ii) Write external and internal anatomy of kidney.
Explain the physiology of urine formation.
- (iii) Describe anatomy and physiology of female reproductive system.

3. Answer any **seven** sub-questions. Each sub-question carries 5 marks. 7×5=35

- (i) Write a note on ABO and Rh blood group systems.
- (ii) Explain the mechanism of blood coagulation.
- (iii) Write functions of lymphatic system. Add a note on spleen.
- (iv) Describe anatomy of heart.
- (v) Discuss cardiac conduction system.
- (vi) Write a note on types and functions blood vessels.
- (vii) Write the functions of different digestive juices.
- (viii) Explain anatomy of respiratory system.
- (ix) Define : Chromosome, DNA, Gene, Translation and inheritance