JHARKHAND Rai University RANCHI ACCREDITED BY NAAC

**Annual/Reappear (Year I) Examination July 2022**

**Programme: D. Pharm** **Full Marks: 80**
**Subject: Human Anatomy & Physiology** **Time: 3 Hrs.**
**Subject Code: ER20-14T**
**Enrollment No: _____**

## Section I

1. **Objective type questions. Answer all questions.** **1 x 20 = 20**

i. Example of Ball and Socket Joint is
   a) Shoulder b) Base of the thumb c) Carpals d) Knee joint

ii. Blood group ..... is called Universal recipient.
   a) A b) AB c) O d) None of the above

iii. Salivary amylase changes cooked starches to disaccharides in the
   a) Small intestine b) Large intestine c) Mouth d) Stomach

iv. _____is formed by the fusion of vertebrae
   a) Sacrum b) Rib cage c) Pelvis d) Coccyx

v. Dilation of pupil is called
   a) Mydriasis b) Myopia c) Hypermetropia d) None of the above

vi. Explain the process of urine formation
   a) Selective reabsorption – Tubular secretion – Glomerular Filtration
   b) Glomerular filtration-Selective reabsorption-Tubular secretion
   c) Tubular secretion – Selective reabsorption – Glomerular Filtration
   d) Glomerular filtration- Tubular secretion

vii. Finger-like projections which help in Absorption
   a) Cilia b) Flagellum c) Microvilli d) Pili

viii. Movable Bone of the skull
   a) Nasal bone b) Maxilla c) Temporal bone d) Mandible

ix. Rhodopsin is a constituent of the human eye
   a) Rods b) Choroid c) Cornea d) Cones

x. How many nerves are in the PNS?
   a) 12 pairs of Spinal nerves and 31 cranial nerve pairs
   b) 12 pairs of cranial nerves and 31 spinal nerve pairs
   c) 21 pairs of cranial nerves and 31 spinal nerve pairs
   d) 31 pairs of cranial nerves and 21 spinal nerve pairs

xi. Normal Human blood pressure is
   a) 120/60 mm Hg b) 140/90 mm Hg c) 120/80 mm Hg d) 90/60 mm Hg

xii. Mitral valve is also known as
   a) Tricuspid valve b) Semilunar valve c) Monocuspid valve d) Bicuspid valve

xiii. An ability of neuron to receive and respond to the external stimuli is known as
   a) Excitation b) Enervation c) Perception d) Replication

xiv. The muscular tubes which take the urine from the kidneys to the bladder are
   a) Urinary bladders b) Ureters c) Urethras d) Nephrons

xv. Body temperature is regulated by
a) Medulla b) Thalamus c) Hypothalamus d) Cerebellum

xvi. The fundamental structural and functional unit of the human body is
a) Tissue b) Muscle c) Nucleus d) Cell

xvii. The name of Hyaline Cartilage Tissue is derived from greek word meaning
a) Glass b) Air c) Fluid d) Matrix

xviii. The adult human skeleton is made up of how many bones?
a) 106 b) 206 c) 306 d) 220

xix. These cells of the testes secrete testosterone
(a) Sertoli cells (b) cells of germinal epithelium
(c) Cells of Leydig or interstitial cells (d) secondary spermatocytes

xx. This hormone is not secreted by Hypothalamus
a) PRH b) TRH c) CRH d) FSH

2. **State whether True or False.** **1 x 10 = 10**

a) Anatomy is the branch of medical science which deals with the study of human body.
b) Lysosomes are the power house of the cell.
c) Skeletal muscle are voluntary in nature.
d) Endodermis is the outermost covering of the skin.
e) Femur is the longest bone in the human body.
f) Glomerular filtration is an ATP-driven process.
g) The lymphatic system plays a role in immunity.
h) The ANS controls the voluntary functions of the body.
i) Each sex cell contains 23 chromosomes, while every other cell in the human body with a nucleus has 46 chromosomes.
j) The maturation of red blood cells is controlled by the hormone "melatonin."

## Section II

3. **Short Answer type questions. Answer any four.** **4 x 5 = 20**

a) Define Cell? Discuss the functions of Endoplasmic reticulum.
b) Write a note on Cardiac Cycle.
c) Explain the mechanism of Respiration.
d) Why pituitary gland is called as master gland?
e) Discuss the process of blood clotting.
f) Discuss the process of formation of urine.

## Section III

**Long Answer type questions. Answer any three.** **3 x 10 = 30**

4. What are tissues? Classify them and give details of muscular tissue.
5. Draw a neat and well labeled diagram of digestive system. Give its functions.
6. Explain the physiology of human eye.
7. Define blood pressure. Discuss the long term regulation of blood pressure.
8. Discuss parasympathetic nervous system giving its functions.

*****