



BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Sc.(MRIT)-2022/B.Sc.(MRIT)-2023/B.Sc.(MRIT)-2024

Course Name – Human Anatomy & Physiology Part I

Course Code - BMRITC101

(Semester I)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Identify the layer to which fibrous pericardium is attached.
 - a) Epicardium
 - b) Myocardium
 - c) Parietal pericardium
 - d) Serous pericardium
- (ii) Select the vein drain into coronary sinus.
 - a) Great cardiac vein
 - b) Anterior cardiac vein
 - c) Vena cordis minimae
 - d) Left circumflex artery
- (iii) Select the structure which forms apex of heart.
 - a) Left ventricle
 - b) Both ventricle
 - c) Left atrium and left auricle
 - d) Left atrium and left ventricle
- (iv) Select the structure which forms base of the heart.
 - a) Both ventricle
 - b) Both atrium
 - c) Left ventricle
 - d) Right ventricle and auricle
- (v) Identify the area which shows tenderness in case of appendicitis.
 - a) Ster nal angle
 - b) Jugular notch
 - c) Epigastrium
 - d) Mac burneys point
- (vi) Identify which part of the lung shows impression of mediastinal structure.
 - a) Apex
 - b) Base
 - c) Costal surface
 - d) Medial surface
- (vii) The Incisura angularis explains which anatomical location.
 - a) The junction between cardia and fundus
 - b) The junction between the body and pyloric part of stomach
 - c) The junction between the fundus and pyloric part of stomach
 - d) The junction between the cardia and body
- (viii) Identify the following cells found in the stomach which secrete pepsinogen.
 - a) Chief cells
 - b) Oxyntic cells

- c) Goblet cells
(ix) Identify which structure appear distorted in barium meal xray of a patient suffering from peptic ulcer disease.
a) Gastric canal
c) Duodenal cap
(x) Choose of the following statements about red blood cells (RBCs) is correct?
a) RBCs contain hemoglobin
c) Mature RBCs lack ribosomes
(xi) Select the antigens for ABO and Rh blood groups are present on-
a) Plasma
c) Red blood cells
(xii) Describe the Portal system is present between-
a) Two veins
c) Vein and artery
(xiii) Choose which is called secondary pacemaker of Heart.
a) SA node
c) Purkinje fiber
(xiv) State the Circle of Willis present in-
a) Coronary Circulation
c) Hepatic Circulation
(xv) State Oxygen is carried by _____.
a) Platelets
c) Erythrocytes
- d) Gastrin releasing cells
b) Pyloric antrum
d) Fundus
b) Mature RBCs lack cell membrane.
d) The lifespan of RBCs is about 30 days.
b) White blood cells
d) Platelets
b) Two arteries
d) Two capillary plexus
b) AV node
d) Bundle of His
b) Cerebral Circulation
d) Systemic Circulation
b) Leucocytes
d) Monocytes

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Explain how hypoxic hypoxia decreases oxygen content in the blood. (3)
3. Describe the root of the lungs (with proper diagram). (3)
4. Describe boundaries and contents of mediastinum. (3)
5. Write about origin and branches of right and left coronary artery. (3)
6. Classify the parts of liver and the functions of liver. (3)

OR

Illustrate the factors affecting gastric juice secretion. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Explain boundary and contents of superior and inferior mediastinum with contents and suitable diagram? (5)
8. Write about the hepatic portal vein-location, formation, tributaries-show them in a proper diagram? (5)
9. Explain the process of CO₂ transport from tissue to lung. Add a note on chloride shift. (5)
10. Explain the phases in the cardiac cycle. (5)
11. Explain the peritoneal covering of the abdominal viscera. (5)
12. Illustrate the structure of spleen and its functions. (5)

OR

Categorize the salivary glands, composition of saliva and its functions. (5)
