

S.S.R. DEGREE COLLEGE, (AUTONOMOUS)
NIZAMABAD (C.C:5029)
I SEMESTER INTERNAL ASSESSMENT-II EXAMINATIONS
BSC MLT HUMAN PHYSIOLOGY – Part I Question Bank

Multiple Choice Questions:

1. The primary muscle involved in respiration is: (a)
a) Diaphragm b) Intercostal muscles c) Abdominal muscles d) Pectoral muscles
2. The process of gas exchange between alveoli and blood is called: (b)
a) Internal respiration b) External respiration c) Cellular respiration d) Diffusion
3. Which part of the brain controls respiration? (c)
a) Cerebrum b) Cerebellum c) Medulla oblongata d) Thalamus
4. Spirometer is used to measure: (d)
a) Blood pressure b) Heart rate c) Blood glucose d) Lung volumes
5. Tidal volume refers to: (a)
a) Air inspired or expired in normal breathing b) Air remaining after forced expiration
c) Maximum volume inspired d) Residual air
6. Vital capacity is the sum of: (b)
a) IRV + RV b) TV + IRV + ERV c) ERV + RV d) TV + RV
7. Residual volume refers to: (c)
a) Air exhaled during normal breathing b) Air taken during forced inspiration
c) Air left in lungs after full expiration d) None
8. The gas primarily responsible for stimulating respiration is: (d)
a) O₂ b) N₂ c) H₂ d) CO₂
9. The respiratory center is located in: (a)
a) Pons and Medulla b) Midbrain c) Hypothalamus d) Cerebrum
10. Normal respiratory rate in adults is: (b)
a) 6–8/min b) 12–20/min c) 25–30/min d) 40/min
11. The pacemaker of the heart is: (c)
a) AV node b) Bundle of His c) SA node d) Purkinje fibers
12. Cardiac output is defined as: (d)
a) Blood pressure × Heart rate b) Stroke volume × Respiratory rate c) None
d) Heart rate × Stroke volume
13. Normal heart sounds are due to: (a)
a) Closure of valves b) Opening of valves c) Muscle contraction d) Relaxation
14. ECG represents: (b)
a) Mechanical activity b) Electrical activity c) Heart sounds d) Cardiac output
15. P wave in ECG represents: (c)
a) Ventricular depolarization b) Ventricular repolarization c) Atrial depolarization
d) Atrial repolarization

16. QRS complex represents: (d)
a) Atrial depolarization b) Ventricular repolarization c) None d) Ventricular depolarization
17. The 'lub' sound of the heart is caused by: (a)
a) Closure of AV valves b) Closure of semilunar valves c) Opening of valves d) Blood flow
18. Blood pressure is measured by: (b)
a) Thermometer b) Sphygmomanometer c) Spirometer d) ECG machine
19. Normal blood pressure in adults is: (c)
a) 80/40 mmHg b) 140/90 mmHg c) 120/80 mmHg d) 160/100 mmHg
20. Pulse rate in a healthy adult is about: (d)
a) 40 bpm b) 120 bpm c) 30 bpm d) 60–100 bpm
21. Jugular pulse reflects: (a)
a) Right atrial pressure b) Left atrial pressure c) Aortic pressure d) Ventricular pressure
22. Which hormone increases heart rate? (b)
a) Insulin b) Adrenaline c) Thyroxine d) Estrogen
23. Stroke volume means: (c)
a) Blood per minute b) Blood per hour c) Amount of blood pumped per beat d) None
24. Systole refers to: (d)
a) Relaxation phase b) Valve opening c) None d) Contraction phase
25. Bradycardia means: (a)
a) Slow heart rate b) Fast heart rate c) Normal rhythm d) Irregular pulse

Fill in the Blanks:

1. The muscle responsible for respiration is the **diaphragm**
2. Gas exchange between alveoli and blood is called **external respiration**
3. The control center for respiration is located in the **medulla oblongata**
4. The volume of air breathed in and out during normal respiration is called **tidal volume**
5. The device used to measure lung volumes is called a **spirometer**
6. Vital capacity is the sum of tidal volume, inspiratory reserve volume and **expiratory reserve volume**
7. The gas that mainly regulates breathing is **carbon dioxide**
8. Residual volume means air left in lungs after **forceful expiration**
9. The pacemaker of the heart is the **SA node**
10. The cardiac cycle includes systole and **diastole**
11. Heart sounds are produced due to the closure of **valves**
12. The first heart sound 'lub' is due to closure of **AV valves**
13. ECG stands for **Electrocardiogram**
14. P wave of ECG represents **atrial depolarization**
15. QRS complex represents **ventricular depolarization**
16. Normal blood pressure in adults is **120/80 mmHg**

17. The instrument used to measure blood pressure is **sphygmomanometer**
18. The hormone that increases heart rate is **adrenaline**
19. The normal pulse rate in adults is **60–100 beats per minute**
20. The functional unit of respiration is the **alveolus**
21. During systole, the heart undergoes **contraction**
22. Blood returning to the heart through veins shows a **jugular pulse**
23. Cardiac output is the product of heart rate and **stroke volume**
24. The relaxation phase of the heart is called **diastole**
25. The ECG is used to study the **electrical activity of the heart**

Descriptive Questions:

1. Define respiration and its types.
2. What is the difference between external and internal respiration?
3. Define tidal volume, vital capacity, and residual volume.
4. What are the components of the circulatory system?
5. What is systole and diastole?