

***CET QUESTIONS ON THE TOPICS  
DIGESTION , RESPIRATION & CIRCULATION.***

1. If digestion occurs within a cell, then it is called
  - 1) Intracellular digestion
  - 2) Extracellular digestion
  - 3) Partial digestion
  - 4) Complete digestion
2. Rugae are the folds of
  - 1) Tongue
  - 2) Stomach
  - 3) Small intestine
  - 4) Large intestine
3. The boneless tongue is made up of
  - 1) Smooth muscles
  - 2) Cardiac muscle
  - 3) Skeletal muscles
  - 4) Longitudinal muscles.
4. Which of the following organs is called the 'metabolic mill' of the body?
  - 1) Pancreas
  - 2) Brain
  - 3) Stomach
  - 4) Liver.
5. The undigested food reaching the colon from the small intestine does not regurgitate because it bears
  - 1) Colon valve
  - 2) Ileocaecal valve
  - 3) Intestinal valve
  - 4) Duodenal valve
6. Which of the following are correctly matched? Select the correct answer from the choice.
  - a) Goblet cells-mucous,
  - b) Zymogenic cells-serotonin,
  - c) Oxyntic cells-HCl,
  - d) Paneth cells-lysozymes
  - 1) a, c and d are correct.
  - 2) a, b and c are correct
  - 3) a and b are correct,
  - 4) b and c are correct.
7. Diastema refers to
  - 1) gap between tongue and teeth
  - 2) gap between teeth
  - 3) ciliary cells on alimentary wall
  - 4) cells along pharynx.

8. Curdling of milk in stomach occurs due to

1) Trypsin 2) Renin 3) Rennin 4) Chymotrypsin

9. Which of the following represents bile salts?

1) Bilirubin and biliverdin, 2) Haemoglobin and biliverdin,  
3) Sodium glycocholate and taurocholate 4) Bilirubin and haemoglobin.

10. Receptor for bitter taste are located at which part of the tongue?

1) Base 2) Tip 3) Edges 4) Posterior upper median part

11. Shivering and clattering of teeth in cold weather is due to

1) Vasodilation 2) Vasoconstriction  
3) Increased secretion of glucose 4) Increased sweating.

12. Large intestine absorbs

1) Amino acids 2) Water electrolytes and some vitamins  
3) Monosaccharides 4) Fatty acids and glycerols

13. Duct of Rivinus is associated with

1) Parotid gland 2) Submaxillary gland  
3) Submandibular gland 4) Sublingual gland

14. Death of intestinal bacteria will cause

1) Reduced excretion 2) Tired feeling  
3) Blindness 4) Reduced synthesis of Vitamin B and K

15. Trypsinogen  $\xrightarrow{P}$  Trypsin . In the above question P denotes

1) HCl 2) Enterokinase 3) Proteins 4) Calcium

16. Succus entericus is

1) Saliva 2) Intestinal juice 3) Undigested waste 4) Bile juice.

17. The microbe Helicobacter pylori causes

1) Hepatitis 2) Jaundice 3) Peptic ulcers 4) Peritonitis

18. One of the conditions in Jaundice is

- 1) Hyperchlorhydria 2) Hyperbilirubinemia 3) Hypertension 4) Hyperglycemia

19. Pick out the exopeptidase of the following.

- 1) Pepsin 2) Rennin 3) Trypsin 4) Carboxypeptidase

20. The following is a scheme showing different steps in the process of carbohydrate digestion in human digestive system, choose the correct option from the choice to match with A and B which are indicated in place of the enzymes. STARCH ---- A → MALTOSE ---- B → GLUCOSE.

- 1) A- amylase, B- galactase.      2) A- amylase, B- maltase  
3) A- maltase, B- amylase      4) A- sucrase, B- amylase.

21. Swallowing of air during the process of eating and drinking is called

- 1) Phagocytosis 2) Pinocytosis 3) Polyphagia 4) Aerophagia

22. Cholelithiasis is formation of

- 1) renal stones 2) gastric stones 3) liver stones 4) gall stones

23. The hardest part in the human body is

- 1) bone 2) enamel of tooth 3) crown of tooth 4) cartilage

24. Some animals eat their own faeces to absorb simplified cellulose. It is called

- 1) coprophagy 2) sanguivory 3) herbivory 4) carnivory.

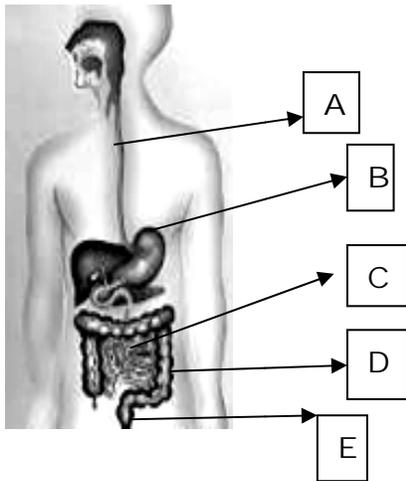
25. The surface area for absorption in small intestine is increased due to

- 1) Ileum 2) Villi 3) Plicae circularis 4) Villi, Microvilli & Plicae circularis

26. Which of the salivary glands will be infected by the virus during mumps?

- 1) Sublingual glands                      2) submaxillary glands  
3) Parotid glands                          4) all three salivary glands.

27. Match the alphabets marked in the diagram with that of the corresponding parts from the choice given below.



- 1) A- oesophagus , B-stomach, C-small intestine, D-colon, E-rectum.
- 2) A- oesophagus , B-liver, C-small intestine, D-colon, E-rectum.
- 3) A-rectum, B-stomach, C-colon, D-small intestine, E- oesophagus.
- 4) A- oesophagus, B-stomach, C-small intestine, D-colon, E-rectum.

28. The structure that closes the internal nostrils during swallowing of food is

- 1) Uvula 2) epiglottis 3) pharynx 4) tongue.

29. Note the relationship between the first two words and choose the suitable term for fourth place.

Proteases: Peptide bond :: Carbohydrases: \_\_\_\_\_.

- 1) Phosphodiester bond                      2) Hydrogen bond
- 3) Glycosidic linkage                        4) covalent bond.

30. Lacteals in human small intestine help in the absorption of

- 1) Water & glucose                          2) Glucose & Vitamins
- 3) Fatty acids & Glycerols                4) Amino acids & Glycerols.

## **RESPIRATION**

1. The lungs are enclosed by

1) pleura 2) glisson's capsule 3) meninges 4) renal capsule.

2. The common passage for wind and air is

1) Larynx 2) Pharynx 3) Oesophagus 4) Trachea

3. A saturated haemoglobin carries ----- number of oxygen molecules.

1) 2 2) 4 3) 6 4) 10.

4. Oxyhaemoglobin dissociates into oxygen and haemoglobin at

1) low oxygen pressure in tissues

2) High oxygen pressure in tissues

3) High Carbon dioxide level.

4) never dissociates.

5. Expiration is

1) passive process 2) removal of air from lungs

3) removal of carbon-di-oxide. 4) Removal of carbon-di-oxide rich air from lungs.

6. Which of these has a minute diameter?

1) trachea, 2) bronchi 3) bronchiole 4) respiratory bronchiole

7. Normal breathing is called

1) apnoea 2) Eupnoea 3) dyspnoea 4) Hypercapnia

8. Breathing rate in a normal adult will be ----- times a minute.

1) 16 2) 20 3) 45 4) 72.

9. ' No Tobacco day' is on

1) May 31<sup>st</sup> 2) November 14<sup>th</sup> 3) December 1<sup>st</sup> 4) February 14<sup>th</sup>

10. Residual air is traced in

1) Alveoli 2) bronchi 3) nasal passage 4) trachea

11. Increase in oxyhaemoglobin leads to increase in acidic nature. This is

1) Bohr's effect 2) Hamburger phenomenon

3) Chloride shift 4) Haldane's effect

12. Iron free part of haemoglobin is

1) Haeme 2) Globin 3) Bilirubin 4) Haematin

13. The carbonic anhydrase is present in

1) WBC 2) RBC 3) Blood Plasma 4) blood platelets.

14. Costa refers to

1) lungs 2) alveoli 3) ribs 4) diaphragm

15. A sudden involuntary contraction of the diaphragm during which the glottis closes suddenly is called

1) cough 2) belching 3) hiccup 4) yawning.

16. The inner layer of alveoli is coated by a lipoprotein to reduce the surface tension and is known as

1) surfactant 2) pleura 3) pericardial fluid 4) both pleura & surfactant.

17. The inhaled air is warmed, filtered, sterilized & moistened while passing through

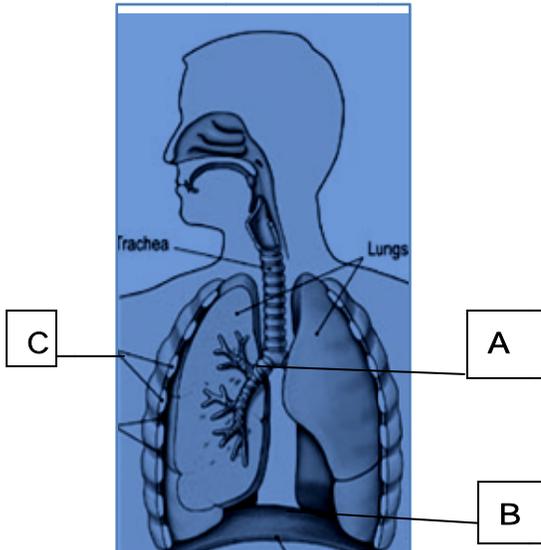
1) nostrils 2) nasal passage 3) trachea 4) bronchi.

18. What percent of oxygen is transported by haemoglobin in the human body?

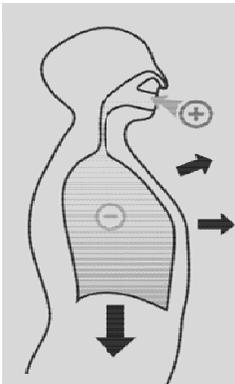
1) 10- 15% 2) 70-80% 3) 96-97% 4) 100%.

19. Certain parts have been indicated in the diagram .choose the correct option that matches the parts & the alphabets .

- 1) A- Bronchi , B- diaphragm, C-intercostal muscles.
- 2) A- Bronchi , B- Diaphragm, C-ribs.
- 3) A- Bronchi, B- Diaphragm, C- Ribs.
- 4) A- Ribs , B- Diaphragm, C- Bronchi.



20. Name the type of process involved during respiration which has been indicated in this diagram. Choose the correct answer from the choice.



- 1) Exhalation,
- 2) Inhalation,
- 3) Transportation of gases,
- 4) External respiration.

**21. One of the following Pulmonary diseases is called 'smoker's lung disease'-**

**1) asthma 2) bronchitis 3) emphysema 4) rhinitis**

**22. Pleurisy is an inflammation of**

**1) bronchi 2) pleura 3) alveoli 4) peritoneum.**

**23. The smallest cartilage in larynx is**

**1) thyroid 2) cricoid 3) arytenoid 4) ring of gristle.**

**24. The air that retains back in the lungs to keep it inflated is**

**1) Tidal volume                      2) inspiratory reserve volume**

**3) Residual volume                4) expiratory reserve volume**

**25. Which one of the following represents the partial pressure of CO<sub>2</sub> the alveolar air?**

**1) 110 mm of Hg 2) 36mm of Hg 3) 40 mm of Hg 4) 100 mm of Hg.**

**26. Read the two statements given below and choose the correct answer from the choice to note the relation.**

**Statement –A During mouth to mouth breathing air is blown into the subject's mouth by an operator 12 times per minute but the air from the lungs is not sucked out .**

**Statement –B Expiration is a passive process.**

**1) Statement A is correct & B is wrong.**

**2) Both the statements are correct but not related to each other.**

**3) Both the statements are correct and B is the reason for A**

**4) Both the statements are not possible.**

**27. Which of the two lungs is trilobed?**

**1) Right lung 2) left lung 3) both the lungs 4) neither of the lungs.**

28. The respiratory quotient is defined as

- 1)  $\frac{\text{Volume of O}_2 \text{ absorbed}}{\text{Volume of CO}_2 \text{ released}}$       2)  $\frac{\text{Volume of CO}_2 \text{ released}}{\text{Volume of O}_2 \text{ absorbed}}$
- 3) Both are equal.      4) Both are not related with each other.

29. Each lung has

- 1) 200 million alveoli   2) 300 million alveoli   3) 500 million neurons   4) 300 million nephrons

30. During the transportation of gases, to maintain the ionic balance, chloride ions shift from

- 1) RBC's to plasma   2) plasma to RBC   3) lungs to blood   4) blood to lungs.

## **CIRCULATION**

1. Identify the correct sequence of layers of heart wall from inside to outside

- 1) endocardium \_\_ myocardium \_\_ epicardium  
2) myocardium \_\_ epicardium \_\_ pericardium  
3) endocardium \_\_ myocardium \_\_ Pericardium  
4) epicardium \_\_ myocardium \_\_ endocardium

2. The tendinous cords that connect tricuspid and bicuspid valves with the walls of the ventricles

- 1) semilunar valves      2) chordae tendinae      3) muscles   4) veins

3. The largest veins of our body are

- 1) pre and post caval veins      2) aorta  
3) pulmonary veins      4) pulmonary arteries.

4. The crematorium of RBC's is

- 1) Liver      2) Large intestine   3) stomach   4) bone

5. Which of the following is the smallest WBC ?

- 1) small lymphocyte      2) monocyte      3) neutrophil      4) basophil

6. Which instrument is used to listen to the heart sounds?

- 1) sphygmomanometer    2) stethoscope    3) spirometer    4) electrocardiograph

7. Which is the longest circuit in double circulation

- 1) coronary circulation    2) pulmonary circulation    3) systemic circulation  
4) coronary and pulmonary circulation.

8. One among these is a congenital heart disease. Pick it out

- 1) High BP    2) Low BP    3) Heart attack    4) Cyanosis

9. The alarm that cautions to the non diabetic hypertensive patients before heart attack is

- 1) Angina pectoris      2) Rheumatic pain      3) Neck pain      4) Cough

10. Adrenaline is a

- 1) Cardio- inhibitor                      2) Cardio- accelerator  
3) Doesn't work on heart              4) Cardio arrestor

11. The normal blood pressure in a normal adult is

- 1) 100/90 mm of Hg                      2) 140/90 mm of Hg  
3) 120/80 mm of Hg                      4) 60/60 mm of Hg

12. Bradycardia is

- 1) increased heart beat rate    2) cessation of heart beat  
3) decreased heart beat rate    4) clotting of blood

13. 'World Heart Day' is on

- 1) February 14<sup>th</sup>    2) September 29<sup>th</sup>    3) December 1<sup>st</sup>    4) November 14<sup>th</sup>

14. The 'Columbus of blood circulation' is

- 1) William Harvey    2) Bichat    3) Malpighi    4) Sushruta

15. The Vitamin that helps in the formation of Pro-thrombin is

- 1) Vitamin- A    2) Vitamin- D    3) Vitamin- E    4) Vitamin - K

16. The cardiac centers are located in

- 1) Pons Varolii    2) Medulla oblongata    3) Cerebrum    4) Cerebellum.

17. HDL is considered a good lipid as it helps to carry cholesterol away from

- 1) Heart to lungs    2) Heart to liver    3) Heart to kidney    4) Heart to stomach.

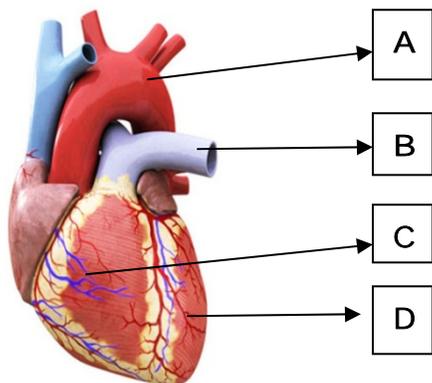
18. Angiography is a technique to

- 1) Scan blood vessels                      2) Clear blocked arteries  
3) Check B.P.                                4) Check sugar level.

19. In a normal healthy person the BP at sleep will

- 1) increase    2) decrease    3) remains the same    4) fluctuates terribly

20. Which of the sets in the choice has a correct combination of the parts indicated and the alphabets.



- 1) A- pulmonary artery, B- aorta, C- coronary sinus, D- coronary artery.  
2) A- aorta, B- pulmonary artery, C- coronary sinus, D- coronary artery.  
3) A- coronary artery, B- coronary sinus, C- pulmonary artery, D- aorta.  
4) A-aorta, B- coronary sinus, C- pulmonary artery, D- coronary artery.

21. The heart beat in man is originated by a set of muscles , so it is a

- 1) Myogenic heart,    2) Neurogenic heart    3) cardiac heart    4) visceral heart.

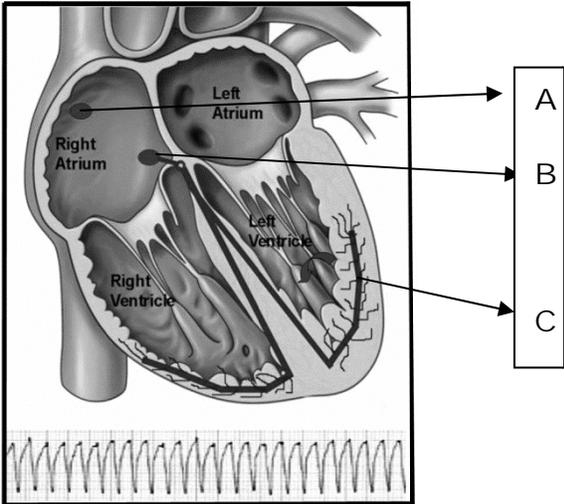
22. When SAN fails to set the impulse, it leads to

- 1) Insulin shock 2) Atherosclerosis 3) circulatory arrest 4) circulatory shock

23. The condition where the heart muscles do not get proper blood supply is called

- 1) Myocardial infarction 2) Myocardial ischemia  
3) Coronary thrombosis 4) Arteriosclerosis

24. Match the parts indicated in the diagram and their function related to heart beat. Choose the correct combination from the option given below.



1) A-SAN---initiation, B- bundle of HIS & C- Purkinje fibers---- conduction  
2) A- Purkinje fibers--- initiation, B- B-SAN & C- AVN-----conduction.  
3) A-SAN--- initiation, B- AVN & C- Purkinje fibers ----- conduction  
4) A-SAN---- initiation, B – AVN & C- Purkinje fibers ----- initiation

25. Which one of the chemicals prevent blood clotting?

- 1) Fibrinogen 2) Prothrombin 3) Heparin 4) Fibrin.

26. Arteries are connected to veins through

- 1) Arterioles 2) venules 3) capillaries 4) nerves.

27. Patent ductus arteriosus is a condition in which inter mixing of oxygenated and deoxygenated blood takes place due to the connection between

- 1) two auricles 2) two ventricles  
3) aorta & pulmonary artery 4) pulmonary artery & pulmonary veins.

28. Sino-atrial node was discovered by

- 1) Aristotle 2) Malpighi 3) William Harvey 4) Keith & Flack

**29. The opening of aorta is guarded by**

**1) tricuspid valve 2) bicuspid valve 3) semilunar valve 4) coronary valves**

**30. Which of the following is not an organ?**

**1) heart 2) blood 3) lungs 4) stomach.**