MCQ & short questions for your study

	Circulatory System
1	What is the circulatory system? a) The body's breathing system b) The body's system of nerves c) The body's food-processing system d) The body's blood-transporting system
2	From what source do cells get their food? a) Blood b) Oxygen c) Other cells d) Carbon dioxide
3	Why is oxygen important to blood and to the cells? a) Oxygen helps the blood to clot. b) Oxygen brings food to the cells. c) Oxygen is necessary for cell growth and energy. d) Oxygen is not important -- carbon dioxide is the most important substance to the body.
4	Which type of blood vessels carries blood away from the heart? a) Veins b) Arteries c) Capillaries d) Arteries, veins and capillaries
5	Why is blood that flows from the lungs to the heart bright red rather than dark red? a) Oxygen makes it red. b) Carbon dioxide makes it red. c) Gastric juices produce the red colour of the blood. d) The lungs add a pigment (dye) to blood as it flows through them.
6	What part of the blood carries minerals, vitamins, sugar, and other foods to the body's cells? a) Plasma b) Platelets c) Red corpuscles d) White corpuscles
7	What is the main job of the red corpuscles in the blood? a) To clot blood b) To fight disease c) To transport oxygen to the body's cells and carry away carbon dioxide from the cells d) To transport carbon dioxide to the body's cells and carry away oxygen from the cells
8	Which of the following can best be compared to soldiers? a) Lungs b) Capillaries c) Red blood cells d) White blood cells
9	Which element in the blood is round and colourless? a) Plasma

	b) Platelets c) Red blood cells d) White blood cells
10	What would happen to people who have an open wound and whose blood did not clot naturally? a) They may bleed to death. b) Nothing. Clotting is not important. c) They would have to take regular doses of plasma. d) They would have to take regular doses of platelets.
11	What happens when a clot occurred in an undamaged blood vessel? a) You would bleed to death. b) A scab will form on the skin surface. c) Platelets stick to the edges of the cut and to one another, forming a plug. d) The flow of blood to tissues beyond the clot may be cut off.
12	What happens to blood when it is pumped into the thin-walled blood vessels of the lungs? a) Platelets are exchanged for plasma. b) Carbon dioxide is replaced with oxygen. c) Blood fills the lungs and causes coughing. d) Nothing -- the lungs are just a place blood goes through on its way back to the heart.
13	What is the function of the blood vessels and capillaries? a) They pump blood to the heart. b) They filter impurities from the blood. c) They carry blood to all parts of the body. d) They carry messages from the brain to the muscles.
14	Why does blood turn dark red as it circulates through the body? a) It starts to clot. b) It gets old and dirty flowing through the body. c) The oxygen in it is replaced with carbon dioxide. d) The farther blood is from the heart, the more dark red it is.
15	How many major types of blood have scientists discovered? a) One: Type "O" b) Two: white cells and red cells c) Three: white cells, red cells, and plasma d) Four: Types A, B, AB, and O
16	What is the organ that pumps blood all throughout the human body? a) The lungs b) The heart c) The kidneys d) The blood vessels and capillaries
	Respiratory System
17	What is the respiratory system? a) The body's breathing system b) The body's system of nerves c) The body's food-processing system d) The body's blood-transporting system
18	Air can enter the body and travel to the lungs ... a) through the mouth and the nose

	b) through the oesophagus and gullet c) through the windpipe and the pores d) through the nose and the nervous system
19	What is the purpose of the little hairs inside the nose? a) To fight disease. b) They serve no purpose. c) To keep dust out of the lungs. d) To tickle the nose and cause sneezes.
20	What is another name for the windpipe? a) Lungs b) Larynx c) Trachea d) Oesophagus
21	What happens to the windpipe, or trachea, before it reaches the lungs? a) It branches in two directions. b) It branches in three directions. c) It vibrates and creates sounds. d) It closes up so that no oxygen can escape.
22	What important activity takes place in the lungs? a) Food is digested. b) Liquid waste is filtered from the blood. c) Oxygen is exchanged for carbon dioxide. d) The trachea is exchanged for the larynx.
23	Oxygen moves from the lungs into the bloodstream through ... a) nerve fibres b) a large artery in the heart c) small blood vessels in the lungs d) a tube in the lungs called the jugular vein
24	When we breathe in, we inhale many gases, including oxygen. What happens to the gases that the body can't use? a) They are exhaled. b) They are changed into oxygen by the lungs. c) They circulate through the body and are disposed of later. d) They are absorbed into the digestive system and used to create energy.
25	Which organ is made up of air-carrying tubes and tiny sacs? a) The brain b) The lungs c) The stomach d) The diaphragm
26	What body structure protects the lungs from outside harm? a) Cartilage b) Tiny sacs c) The rib cage d) The diaphragm
27	To go on living, the body's cells need food, water, chemicals, and ... a) helium b) oxygen c) vegetables d) carbon dioxide

28	Transporting oxygen gas throughout the body is considered to be _____ respiration. a) external b) internal c) pulmonary
29	The actual process of inhaling and exhaling is _____ respiration. a) external b) internal c) pulmonary
	Digestive System
30	What is the digestive system? a) The body's breathing system b) The body's system of nerves c) The body's food-processing system d) The body's blood-transporting system
31	Digestion begins in the mouth. Which of the following statement is INCORRECT? a) The tongue aids in the digestion of the food. b) The saliva changes some of the starches in the food to sugar. c) The tongue keeps the food in place in the mouth while the food is being chewed. d) The digestive juices can react more easily with the food when chewed.
32	Where does food pass through between the mouth and the stomach? a) The gullet b) The rectum c) The small intestine d) The large intestine
33	Our throat divides into two separate tubes: the windpipe and the gullet. What prevents food from entering the windpipe? a) The uvula b) The tongue c) The trachea d) The epiglottis
34	What happens when food reaches the stomach? a) Nothing. No digestion occurs in the stomach. b) The food moves quickly into the small intestine. c) Juices mix with the food and stomach muscles squeeze it. d) The food is completely digested and is absorbed by tiny blood vessels in the walls of the stomach.
35	Where does the partly-digested food (in liquid form) go after it leaves the stomach? a) The gullet b) The appendix c) The small intestine d) The large intestine
36	How does digested food finally reach the bloodstream? a) It passes through the gullet into the blood. b) It is absorbed into the blood through blood vessels. c) It is absorbed into the blood through the walls of the lungs. d) It passes from the small intestine into the large intestine, then into the blood.
37	The digestive system processes food into usable and unusable materials. The usable materials are sent to the body's cells as food. What happens to unusable materials?

	a) It goes into the pancreas to await disposal. b) It goes to the right ventricle to await disposal. c) It goes into the large intestine to await disposal. d) It goes into the small intestine to await disposal.
38	Solid waste leaves the body through the rectum then the anus. Liquid waste leaves the body after passing through the ... a) kidneys and bladder b) blood vessels and lungs c) large intestine and bowel d) small intestine and large intestine
39	Digestion takes place in a long tube-like canal called the alimentary canal, or the digestive tract. Food travels through these organs in the following order: a) Mouth, gullet, stomach, small intestine, large intestine and rectum b) Mouth, oesophagus, stomach, large intestine, small intestine and rectum c) Mouth, stomach, oesophagus, small intestine, large intestine and rectum d) Mouth, stomach, gullet, small intestine, large intestine and rectum
40	Which of the following does NOT manufacture digestive juices? a) Liver b) Kidneys c) Stomach d) Pancreas
41	The liver is located in the abdomen and performs many functions. Which of the following is NOT a function of the liver? a) Storing food b) Manufacturing insulin c) Producing digestive juices d) Healing itself when it is damaged
42	The major functions of the digestive system are to digest food and to absorb nutrients into the _____. a) stomach b) small intestine c) bloodstream
43	Which of the following is considered to be an accessory organ of digestion? a) pancreas b) stomach c) small intestine
44	Secretion is an important process of digestion. Which of the following best describes one concept of secretion in reference to the digestive system? a) Secretion is the release of waste products from the action of digestion. b) Secretion is the movement of food through the gastrointestinal tract. c) Secretion is the release of digestive enzymes from various organs to digest food.
45	Which of the following is the term that refers to the movement of food through the digestive system via the action of smooth muscles? a) peristalsis b) ingestion c) defecation

	Excretory System
46	Ability of the kidneys for the production of concentrated urine is dependent on _____. A Active transport B Passive transport C Countercurrent mechanism D Diffusion
47	Accumulation of urea and other waste substances in the blood is called A Hemodialysis B Cystitis C Uremia D Urethritis
48	Bile manufactured by liver is stored within the _____. A Urinary bladder B Gallbladder C Liver D Lungs
49	Certain ions and molecules, for examples H+ and penicillin are secreted from the peritubular capillary network into the _____. A Convoluted tubules B Peritubular capillaries C Loops of Henle D Collecting ducts
50	Correct sequence of urine formation is A Filtration, reabsorption, secretion B Secretion, reabsorption, filtration C Reabsorption, secretion, filtration D Reabsorption, filtration secretion
51	Creatinine the waste product closely regulated by the brain and kidneys is the end product of the metabolism of _____. A Ammonia B Muscle C Nucleotide D Anaerobic
52	Glomerular capsule and Convoluted tubules always lie within the _____. A Renal pelvis B Renal medulla C Renal cortex D None of these
53	Glomerular filtrate passes from glomerular capsule into the _____ A Loop of the nephron B Proximal convoluted tubule C Glomerular capsule D Convoluted tubule
54	If a man takes large amount of protein, he is likely to excrete more amount of A Glucose B Urea and uric acid C Water D Salts

55	If a person undergoes a prolonged fasting then his urine will be found to contain higher levels of A Ketones B Amino acids C Fats D Glucose
56	In the kidneys, osmotic pressure controls _____. A Glucose absorption B Sodium absorption C Water absorption D none of these
57	Most of the reabsorption of salts and water occurs in the _____. A Distal convoluted tubule B Loops of Henle C Proximal convoluted tubule D Collecting tubule
58	Which one of the following statements is correct with respect to kidney function regulation? A During summer when body loses lot of water by evaporation, the release of ADH is suppressed B When someone drinks lot of water, ADH release is suppressed C Exposure to cold temperature stimulates ADH release D An increase in glomerular blood flow stimulates formation of Angiotensin II
	STUDY QUESTIONS **Homeostasis**
1	The smallest structure capable of carrying out all life processes is the _____Cell_____.
2	Homeostasis is maintained primarily via ___-Ve_____ feedback mechanisms.
3	The sum of all chemical reactions in the body is known as ___Metabolism_____.
4	TRUE OR FALSE: True = A False = B.
4.1	When a red blood cell swells it has undergone crenation. B
4.2	The term homeostasis refers to the maintenance of a relatively stable internal and external environment. A
4.3	Growth of a tissue due to increase in cell size is called hypertrophy. A
4.4	Anaerobic respiration does not require oxygen. A
4.5	Glucose enters cells by a process called facilitated diffusion. A
4.6	Ions will have a positive or negative charge. A
4.7	Mitosis is a type of sexual reproduction. B
4.8	Chromosomes are made up of DNA. A
4.9	All metabolic activities require oxygen. B
4.10	Enzymes are able to speed up chemical reactions. A
4.11	Anabolic metabolism requires energy. A
5	MATCH EACH ORGANELLE WITH THE APPROPRIATE STATEMENT. (Note: Items A through E may be used more than once.) A) Ribosome B) cell membrane C) endoplasmic reticulum (ER) D) lysosome E) mitochondrion
5.1	May be attached to ER, or free in the cytoplasm A
5.2	Membranous sac of digestive enzymes D

5.3	Regulates passage of material into and out of the cell B
5.4	Contains cristae E
5.5	Usually described as a fluid-mosaic model B
5.6	Plays an important role in autophagy D
5.7	Contains DNA, can move and reproduce E
5.8	The appearance may be rough or smooth C
5.9	Made up of interconnected tubules C
6	Which of the following is classified as a monosaccharide? A) sucrose B) glycogen C) glucose D) lactose E) starch.
7	As a result of mitosis, each new cell has: A) twice as many chromosomes as its parent cell B) half as many chromosomes as its parent cell C) four times as many chromosomes as its parent cell D) the same number of chromosomes as its parent cell E) none of the above
8	Cells placed in an isotonic solution will: A) shrink B) swell C) neither swell nor shrink
9	Which of the following correctly lists the levels of organization from least complex to most complex? A) cellular, tissue, chemical system, organ, organism B) chemical, cellular, tissue, organ, system, organism C) tissue, cellular, chemical, organ, system, organism D) chemical, tissue, cellular, system, organ, organism E) organism, system, organ, tissue cellular, chemical
10	An organ is defined as a structure that has a specific structure and is composed on two or more different types of: A) molecules B) cells C) systems D) tissues E) membranes
11	The sum of all chemical reactions that occur in the body is known as A) growth B) reproduction C) metabolism D) differentiation E) responsiveness
12	The two body systems that regulate homeostasis are the: A) cardiovascular and respiratory systems B) cardiovascular and urinary systems C) cardiovascular and endocrine systems D) nervous and cardiovascular systems E) nervous and endocrine systems

13	Which of the following best describes the endocrine system? A) It regulates homeostasis by means of nerve impulses B) It absorbs nutrients C) It contains hair, skin, and nails | D) It produces blood cells that transport oxygen. E) It is made up of glands that secrete hormones
14	The body system that distributes oxygen and nutrients to cells and carries carbon dioxide and wastes away from cells is the: A) respiratory system B) cardiovascular system C) endocrine system D) urinary system E) integumentary system
15	The system that plays the major role in regulating the volume and chemical composition of blood, eliminating wastes, and regulating fluid and electrolyte balance is the: A) respiratory system B) cardiovascular system C) endocrine system D) urinary system E) integumentary system
16	Which of the following are considered part of the integumentary system? A) liver, stomach, and intestines B) brain and spinal cord C) hormone-secreting glands D) kidneys and urinary bladder E) hair, skin, and nails
16	Which of the following is an example of a positive feedback loop? A) A neuron is stimulated, thus opening membrane channels to allow sodium ions to leak from the extracellular fluid to the intracellular fluid. This causes more membrane channels to open, thus allowing more sodium ions to enter the intracellular fluid. B) Baroreceptors notify the brain that the blood pressure has increased. The brain then notifies the blood vessels to dilate, thus lowering the blood pressure. C) Low levels of glucose in the blood cause the pancreas to release less insulin (a hormone that lowers blood glucose). D) Elevated body temperature is sensed by cells in the brain. As a result, sweat is produced, and heat is lost as the water in the sweat evaporates. E) An auto factory produces 1000 cars per week. The sales office could sell 1200 cars per week. Extra production personnel are added at the factory to meet the sales demand.
17	You are eating a hot fudge sundae. The pleasant taste information is sensed by your taste buds, which notify your brain. Your brain releases endorphins, which make you feel very good. You now associate the good feeling with hot fudge sundaes, so you eat another hot fudge sundae. Now you feel even better. Which of the following statements is TRUE regarding this scenario? A) This is a negative feedback loop because two hot fudge sundaes will make you sick. B) This is a positive feedback loop because the results make you feel good. C) This is a negative feedback loop because you were doing something bad for your health in the first place, and the result makes the situation worse. D) This is a positive feedback loop because the stimulus (eating a hot fudge sundae) and the effect (eating another hot fudge sundae) are the same.

	E) This is a negative feedback loop because the stimulus (eating a hot fudge sundae) and the effect (eating another hot fudge sundae) are the same.
18	Which of the following best defines tissue? A) the basic structural and functional unit of an organism B) the molecules that form the body's structure C) a group of cells and the surrounding materials that work together to perform a particular function D) a group of related organs with a common function E) the membranes that cover organs
19	Which of the following body systems provides protection against disease and returns proteins and plasma to the cardiovascular system? A) respiratory B) urinary C) endocrine D) lymphatic E) integumentary
20	Which of the following is TRUE regarding the skeletal system? A) It provides support and protection. B) It stores minerals. C) It assists in body movements. D) It houses cells that give rise to blood cells. E) All of the above are true.
21	Place the following in correct sequence from the simplest to most complex: 1. Molecules 2. Atoms 3. Tissues 4. Cells 5. Organ A) 1,2,3,4,5 B) 2,1,4,3,5 C) 2,1,3,4,5 D) 1,2,4,3,5.
22	Which statement is not true concerning characteristics of life? A) All body cells exhibit irritability to some extent B) Each organ system is isolated from all other body systems C) Growth can be an increase in size due to an increase in the number of cells D) Reproduction occurs on both the cellular and organismal level
23	Homeostasis is the condition in which the body maintains: A) The lowest possible energy usage B) A relatively stable internal environment, within limits C) A static state with no deviation from preset points D) A changing state, within an unlimited range
24	Human bodies are able to maintain a certain constancy of their internal environment. This statement A) Refers only to the physiology of the vascular (circulatory) system B) Refers to homeostasis in the body C) Tells how positive feedback mechanisms work D) Refers to the direct control of cell activities by nucleic acids E) is not true in very old or very young humans
25	Anabolism is the: A) Breakdown of matter B) Expulsion of matter C) Synthesis of matter

	D) All of the answers are correct
26	If a response enhances the original stimulus, the system is classified as a _____ feedback system. A) Neutral B) Polarized C) Deficit D) Negative E) Positive
27	Energy used by cells is temporarily stored in and released from a. ATP molecules. b. the cytoskeleton. c. ribosomes. d. lysosomes.
28	Maintaining stable conditions in the internal environment of a cell is called a. homeostasis. b. homozygous. c. hypotonic. d. homologous.
29	A group of specialized cells with the same structure and function form a. organs. b. tissues. c. membranes. d. stem cells.
30	Your body temperature is controlled by a. your reproductive system. b. your respiratory system. c. lipids. d. negative feedback
31	All body systems contain a. skin. b. nerves. c. organs. d. muscle cells.
32	The circulatory system exchanges matter with cells via a. the arteries. b. the veins. c. the lymph. d. the capillaries.
33	The body's specific immune system is a function of a. lymphocytes. b. plasma. c. platelets. d. lymph nodes.
34	The three components of a homeostatic mechanism in the body are a. a stimulus, a sensor, and a response. b. a sensor, an effector, and a control centre. c. too much, too little, homeostasis. d. tissues, organs, organ systems.
35	When performing a dissection, cuts made with a scalpel should

	a. enable you to view all specimen structures at all times. b. follow a dorsal-to-ventral direction. c. always be made away from the body. d. always be made toward the body.
36	Which of these statements about muscle tissue is accurate? a. Muscles can only push; they cannot pull. b. Muscles can only lengthen; they cannot shorten. c. Muscles can only pull; they cannot push. d. Muscles can only pull; they cannot contract.
37	Hormones a) are chemical regulators that are conveyed from one organ to another via the blood stream. b) may be secreted by endocrine cells. c) may be secreted by nerve cells. d) A and B. e) A, B and C.
38	The site where most of the ATP is generated in a cell is the a) nucleus. b) plasma membrane. c) endoplasmic reticulum. d) Golgi apparatus. e) mitochondria.
39	Which of the following statements concerning complete oxidation of glucose is true? a) Carbon dioxide is not released. b) Oxygen is released. c) Oxygen is used during the Krebs cycle reactions. d) Carbon dioxide is released during the Krebs cycle reactions. e) None of the above.
40	During exercise, there is an increased flow of blood to a) the brain. b) the kidneys. c) the skin. d) B and C. e) A, B and C.
41	Oxygen is carried in blood a) bound to haemoglobin. b) dissolved in the plasma. c) dissolved in the cytosol of erythrocytes. d) A and C. e) A, B and C.
42	Insulin a) increases the uptake and utilization of glucose by muscle and adipose-tissue cells. b) increases the uptake and utilization of glucose by most nerve cells. c) decreases the uptake of amino acids by muscle cells. d) A and B. e) A and C.
43	If you are overweight or obese, the health benefits of losing weight through diet and exercise include:

	a) Improved sensitivity to the action of insulin and improved blood sugar levels b) Lowered risk of developing heart disease, like heart attacks and stroke c) Prevention or delaying of serious health conditions, like breathing problems, joint and bone disorders d) All of the above. e) None of the above
44	How much carbohydrate should you eat each day? a) 10% of your daily calories b) 30% of your daily calories c) 45-65% of your daily calories. d) 90% of your daily calories e) None of the above
45	Sources of heart healthy "good" fats include: a) Olive oil, nuts, avocados and salmon b) Bacon, hot dogs and liver c) Butter, cheese and coconut oil d) Olive oil, vegetable oil, rice bran oil e) All of the above
46	A heart healthy diet is one that is: a) Low in saturated fat, hydrogenated fat, trans fat and cholesterol b) High in soluble fiber c) Low in sodium d) All of the above e) None of the above
	Short questions that must be memorized for final exam
	Human Physiology
1	What organ involved in homeostasis? Describe the basic mechanism with example by which Feedback homeostasis is maintained?
2	Briefly describe the regions of hypothalamus of brain responsible for the maintenance of different homeostatic and autonomic functions.
3	What skin and its functions? Describe the exact responses of the effectors to high and low temperatures
4	What do you understand about human Respiratory system? Describe how red blood cell carries oxygen from lung to tissue and tissue to lung.
5	Write the component of blood and describe their characteristics and major function
6	What causes a heart attack? and who is in risk of CHD?
7	Describe the human respiratory system and its functions and Diseases?
8	What organs make up the excretory system? Describe their functions How is urea formed in the human body?

9	Describe the role of Bile Acids in Digestion? What is the main functions of liver & Kidney?
	Health and Diseases
10	What is the main function of Carbohydrates, Fats and Proteins and how much unit of energy can we get from the three major nutrients.
11	What factors to be considered to formulate a balanced diet and how much of total calorie requirements for a healthy adult Male and Female?
12	What is BMI and what is the BMI range for underweight, normal, overweight and obese person?
13	What do you know about hypoglycemia and Hyperglycemia? Describe the possible causes of hyperglycemia?
14	What is gestational diabetes? how it develops and possible fates of a baby born to mother having gestational diabetes?
15	What is Lipid profile and what is the implication of doing Lipid Profile test?