Neha Malhotra

R.L. Institute

M: 9416974837

Class : XI

"BODY FLUIDS & CIRCULATIONS"

Max Time : 1 hr **Worksheet – 1** **Max Marks = 80**

(Based on Blood , Lymph and Circulatory Pathways)

Q.1 The percentage of water and protein in a straw colored viscous fluid, i.e. plasma is
a) 92% and 8% b) 50% each c) 60% and 40% d) 32% and 68%

Q.2 The type of proteins found in plasma is
a) fibrinogen b) globulin c) albumin d) all of these

Q.3 Serum differs from blood in
a) lacking globulins b) lacking albumins c) lacking clotting factors d) lacking antibodies

Q.4 In humans, RBC's are formed in
a) red bone marrow b) heart c) lungs d) yellow bone marrow

Q.5 An iron containing respiratory pigment in human blood is
a) myoglobin b) haemoglobin c) heem-erythrin d) haemocyanin

Q.6 Leucocytes are colorless due to
a) lack of water b) lack of haemoglobin
c) presence of a white pigment d) presence of calcium ions

Q.7 Lymphocytes (20 - 25%) are two major types, B and T forms. They are responsible for
a) blood coagulation b) thickness of blood c) immune responses d) all of the above

Q.8 Which is the largest among the givens types of leucocytes?
a) Eosinophils b) basophils c) monocytes d) lymphocytes

Q.9 Which enzyme is responsible for lysis of fibrin during fibrinolysis?
a) plasmin b) thrombokinase c) thrombin d) fibrin

Q.10 Which of the following option describes all the components of human blood group?
a) A & B blood group b) AB & O blood group
c) RH and ABO blood group d) RH and AB blood group

Q.11 Person with blood group AB is considered as universal recipient because he has
a) Both A & B antigens on RBC, but no antibodies.
b) Both A & B antibodies in the plasma.
c) No antigen on RBC and no antibodies in the plasma.
d) Both A & B antigens in the plasma, but no antibodies

Q.12 A certain road accident patient with unknown blood group needs immediate blood transfusion. His one doctor friend at once offers his blood what was the blood group of the donor?
a) Blood Group B b) Blood group AB c) Blood group O d) blood Group A

Q.13 What will happen if a RH^- person donates blood to a RH^+ person for the first time
a) RH^- person will die b) RH^+ person will die
c) Nothing will happen to both d) RH^- will leave and RH^+ will die

Q.14 Prothrombinase is formed in the presence of

a) Ca^{2+} b) Mg^{2+} c) Fe^{2+} d) Fe^{3+}

Q.15 Exchange of gases, nutrients etc. between the blood and the cells takes place through

a) RBC b) WBC c) interstitial fluid d) intrastitial fluid

Q.16 Match the following columns

Column – I (Blood cellls)	**Column – II** (Composition)
A. erythrocytes	1. 6000 – 8000 mm^{-3} of blood
B. leucocytes	2. 150000 – 350000 mm^{-3} of blood
C. thrombocytes	3. 5 – 5.5 million mm^{-3} of blood

a) A – 1, B – 2, C – 3 b) A – 2, B – 3 , C – 1

c) A – 3, B – 1, C – 2 d) A – 2, B – 1, C – 3

Q.17 Match the following columns

Column – I (Functions)	**Column – II** (Segments of DNA)
A. neutrophils	1. 20-25% of WBCs
B. basophils	2. 2-3% of WBCs
C. monocytes	3. 6-8% of WBCs
D. eosinophils	4. 0.5-1% of WBCs
E. lymphocytes	5. 60-65% of WBCs

a) A – 5, B – 4, C – 3, D – 2, E – 1 b) A – 5, B – 4, C – 2, D – 3, E – 1

c) A – 1, B – 2, C – 3, D – 4, E – 5 d) A – 5, B – 2, C – 4, D – 3, E – 1

Q.18 The number of chambers in the muscular heart of fishes amphibians and birds is

a) 2, 2, 4 b) 2, 3, 4 c) 2, 4, 4 d) 3, 3, 4

Q.19 All reptiles have a three chambered heart except

a) snake b) crocodile c) lizard d) Both (b) and (c)

Q.20 Two separate circulatory pathways, i.e. Double circulation is found in

a) reptiles and birds
b) mammals only
c) crocodile, birds and mammals
d) reptiles and mammals

Neha Malhotra **R.L. Institute** **M: 9416974837**

Class : XI

"BODY FLUIDS & CIRCULATIONS"

Max Time : 1 hr **Worksheet – 2** **Max Marks = 80**

(Based on Human Circulatory System , Cardiac Cycle , Disorders)

Q.1 Bicuspid and tricuspid valves open to allow
a) blood from the pulmonary artery and vena cava to flow into the left and right ventricles, respectively
b) blood from the pulmonary vein and vena cava to flow into the left and right ventricles, respectively
c) blood from the pulmonary vein and vena cava to flow into the left and right atrium, respectively
d) oxygen from the pulmonary vein and vena cava to flow into the left and right atrium, respectively

Q.2 Action potential generated by SAN
a) Stimulates atrial contraction, i.e. Atrial systole
b) increase blood flow into ventricles
c) stimulates AVN
d) all of the above

Q.3 Duration of cardiac cycle is
a) 0.6 second b) 0.7 second c) 0.8 second d) 0.9 second

Q.4 During each cardiac cycle, prominent sounds are produced which can be easily heard through stethoscope. They are
a) lubb b) dupp c) tick d) both (a) and (b)

Q.5 The first heart sound 'Lubb' occurs in which phase of cardiac cycle
a) isometric relaxation b) atrial diastole
c) ventricular systole d) ventricular diastole

Q.6 ECG is a graphical representation of
a) rate of heartbeat b) volume of blood pumped
c) ventricular contraction d) electrical activities of heart

Q.7 To obtain standard ECG, the patient is connected to the machine with three electrical leads. These three electrical lead are connect it to
a) chest and each wrist b) each ankle and wrist
c) thigh and chest ankle d) each wrist and left ankle

Q.8 The beginning of ventricular systole is represented in ECG through
a) P&Q wave b) QRS wave c) P&S wave d) S&T wave

Q.9 Match the following columns

	Column I (ECG wave)		**Column II** (Features)
A.	P-wave	1.	Depolarisation of ventricles
B.	QRS complex	2.	Repolarisation of ventricles
C.	T-wave	3.	Coronary ischemia
D.	Reduction in the size of T-wave	4.	Depolarisation of atria

a) A – 4, B – 1, C – 3, D – 2 b) A – 2, B – 3, C – 1, D – 4
c) A – 2, B – 1, C – 3, D – 4 d) A – 4, B – 1, C – 2, D – 3

Q.10 Match the following columns

	Column I (Cardiac abnormality)		**Column II** (Features)
A.	Tachycardia	1.	Increased heart rate
B.	Bradycardia	2.	Irregular heartbeat
C.	Arrythmia	3.	Decreased heart rate
D.	Arteriosclerosis	4.	Hardening of lose of elasticity of artries

a) A – 1, B – 2, C – 3, D – 4 b) A – 4, B – 3, C – 2, D – 1
c) A – 1, B – 3, C – 2, D – 4 d) A – 1, B – 4, C – 3, D – 2

Q.11 Neutral center in medulla oblongata can moderate the cardiac function through

a) ANS (Automatic nervous system)
b) sympathetic nervous system
c) parasympathetic nervous system
d) somatic nervous system

Q.12 Neural signals through the sympathetic nerves (ANS) can increase the rate of heartbeat by

a) increasing heart output
b) increasing the strength of ventricular contraction
c) both (a) and (b)
d) increasing the contraction of atrium

Q.13 Heartbeat increases by

a) adrenal hormones
b) sympathetic nerves
c) Both (a) and (b)
d) parasympathetic nerve

Q.14 Systolic or pumping pressure in a normal human is

a) 70 mm of Hg
b) 80 mm of Hg
c) 90 mm of Hg
d) 120 mm of Hg

Q.15 Which one indicates hypertension or high blood pressure(BP)?

a) 120/80 b) 110/70 c) 130/80 d) 140/90

Q.16 Atherosclerosis is caused by deposition of

a) calcium
b) fat and cholesterol
c) deposition of fibrous tissue
d) all of the above

Q.17 The main symptom of congestive heart failure is

a) Hypertension
b) impared heart value
c) congestion in lungs
d) blockage in pulmonary artery

Q.18 Which of the following events occurs during joint diastole

I. All four chambers are in relaxed state.
II. Tricuspid and bicuspid valves are open.
III. Semilunar valves are closed.
IV. Blood from the pulmonary veins and vena cava flows into the left and right ventricles, respectively through the left and right Atria.

The correct option containing correct choices is.

a) Only I b) Only III c) II and IV d) I, II, III and IV

Q.19 Which of the following statements are correct

I. Closure of atrioventricular valves produces 'dupp' sound.
II. A cardiac cycle consists of asystole and a diastole of both Atria and ventricles.
III. The average number of times, a normal heart beats in one minute is 72.
IV. Changing the blood volume in all the chambers of the heart occurs during the cardiac cycle.

The option with correct statement is.

a) I, II and III b) II, III and IV c) I, II and IV d) I, III and IV

Q.21 When to atria contract simultaneously and result in the blood pumping into ventricles, this is called

a) atrial diastole
b) atrial systole
c) ventricular diastole
d) ventricular systole

Q.22 Choose the incorrect pair

a) Dupp –> opening of semilunar valve
b) Lubb –> Sharp closure of AV valve
c) Initiation of heartbeat –> AV nodal tissue of heartbeat
d) Pulmonary artery –> Deoxygenated blood artrey

Q.23 ECG depicts the depolarization and repolarization processes during the cardiac cycle. In the ECG of a normal/healthy individual, one of the following waves is not represented.

a) Depolarization of atrial
b) Repolarization of atrial
c) Depolarization of ventricules
d) Repolarization of ventricules

Q.24 The second heart sound (dupp) is associated with the closure of

a) tricuspid valve b) semi lunar valve c) bicuspid valve d) tricuspid and bicuspid valve

Q.25 The first heart sound 'Lubb' occurs in which phase of cardiac cycle

a) isometric relaxation b) atrial diastole c) ventricular systole d) ventricular diastole