DENTAL SEC B PHYSIOLOGY, 2ND SEMESTER

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Attempt all questions. Every question carry 10 marks.

Q1. Write the functions and composition of blood?

ANS:Blood is a specialized body fluid. It has four main components: plasma, red blood cells, white blood cells, and platelets. Blood has many different functions, including:

>transporting oxygen and nutrients to the lungs and tissues
>forming blood clots to prevent excess blood loss
>carrying cells and antibodies that fight infection
>bringing waste products to the kidneys and liver, which filter and clean the blood
>regulating body temperature

The blood that runs through the veins, arteries, and capillaries is known as whole blood, a mixture of about 55 percent plasma and 45 percent blood cells. About 7 to 8 percent of your total body weight is blood. An average-sized man has about 12 pints of blood in his body, and an average-sized woman has about nine pints.

Q2. What is erythrocyte, erythropoiesis, erythrocytosis and erythropenia?

ANS:ERYTHROCYTOSIS: Erythrocytosis is a condition in which your body makes too many red blood cells (RBCs), or erythrocytes. RBCs carry oxygen to your organs and tissues. Having too many of these cells can make your blood thicker than normal and lead to blood clots and other complications.

ERYTHROCYTE: A red blood cell, which (in humans) is typically a biconcave disc without a nucleus. Erythrocytes contain the pigment haemoglobin, which imparts the red colour to blood, and transport oxygen and carbon dioxide to and from the tissues.

ERYTHROPOIESIS:Erythropoiesis is the process which produces red blood cells, which is the development from erythropoietic stem cell to mature red blood cell. It is stimulated by decreased O_2 in circulation, which is detected by the kidneys, which then secrete the hormone

erythropoietin. ERYTHROPENIA: deficiency of red blood cells called also *erythropenia*

Q3. What is platelets and write about clotting mechanism and its all steps?

ANS:Hemostasis involves three basic **steps**: vascular spasm, **the** formation of a **platelet** plug, and **coagulation**, in which **clotting factors** promote **the** formation of a fibrin **clot**. Fibrinolysis is **the** process in which a **clot** is degraded in a healing vessel.

What is the clotting mechanism?

Coagulation, also known as **clotting**, is the process by which blood changes from a liquid to a gel, forming a blood **clot**. ... The **mechanism** of **coagulation** involves activation, adhesion and aggregation of platelets, as well as deposition and maturation of fibrin.

Q4. Write a note on ABO system?

ANS:**ABO blood group system**, the classification of human blood based on the inherited properties of red blood cells (erythrocytes) as determined by the presence or absence of the antigens A and B, which are carried on the surface of the red cells. Persons may thus have type A, type B, type O, or type AB blood.

Q5.(i) A person fell down from a tree and become unconscious, with bleeding from head, what will you do as a first aid?

ANS:**They are** breathing. Look closely how **they** have **fallen** and carefully put them into the recovery position to keep their airway clear. **They are** not breathing: start CPR immediately and act according to your organisation's emergency policy. Request a defibrillator immediately if there is one available.

(ii) you have to meet with your friend and you came to know he is covid positive, what precautionary measures will you take?

ANS: **must** play a role if **we are** to stop **the** spread of this ... **they are** standing within one meter **of a** person with **COVID**-19 **they can** catch **it** by breathing in droplets ... WE NOT TRY TO SHAKE WITH HIM. AND USE MASK ,AND AFTER THE MEETING WASH OUR HANDS WITH A SANITIZER.