Name ⇒ Muhammad Zahid

ID No ⇒ 16679

Department ⇒ Radiology

Semester 2nd Section "B"

Paper ⇒ Physiology

Submitted To ⇒ Mam Kousar Shah

Jehan

Q.No 1 :- Answers

Function of Blood

Blood has three main functions: transport, protection and regulation. Blood transports following substances Gases, namely oxygen (O_2) and Carbon dioxide (CO_2) between the lungs and rests of Body. Nutrients from the digestive tract and storage sites to the rest of the Body. The primary functions of Blood is to deliver oxgen and nutrients to and remove waste from the Body cells: but that is only the beginning.

Composition of Blood

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.
Blood is a suspension of blood elements (erythrocytes leukocyte and platelets) in blood plasma.

Plasma (55 %)

White blood cells & platelets (4 %)

Red blood cell (41 %)

Q No 2 ANSWERS

ERYTHROCYTE :-

The erythrocyte commonly known as red blood cell (OR) RBC, is by far the most common formed element. A single drop of blood contains million of erythrocytes

and just thousand of leukocytes Specifically males males have about 5.4 million erythrocytes per microliter of blood and females have approximately 4.8 million per. In fact erythrocytes are estimated to make about 25% of the total cell in body.

Erythropoiesis *

(from Greek 'erythro' meaning "red" and 'poiesis' meaning "to make") is the process which produces red blood cells (erythropoietic stem cell to mature red blood cell. It is stimulated by decreased O_2 in circulation which is detected by the kidneys, which make then secrete the hormone erythropoietin. This hormone stimulates proliferation and differentiation of red cells precursors which activates increased erythropoiesis in the hemopoietic tissues ultimately producing red blood cell (erythrocytes.)

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 to many of these cells make your organs and tissues. make your blood thicker than normal and lead to blood clots and other complications.

Two Types of erythrocytosis
① Primary erythrocytosis ② Secondary

ERYTHROPENIA :-

***

If erthrocyte count less than normal, such as state is erythropenia.
A deficiency in number of RBCs or reduced haemoglobin levels in RBCs is known as anaemia.

* Erythropenia may be because of-
  * Problems in production.
  * Excessive destruction (haemolysis)
  * Blood loss.

Q No 13 ANSWERS

PLATELETS ★

Platedets are tiny blood cells that help your body from clots to stop bleeding. if one of your blood vessels gets damaged, it sends out signals to platelets. The platelets then rush to the site of damage. they form a plug (clot) to fix the damage.

PLATELETS CLOTTING :-

Coagulation also known as clotting, is the proces by which blood changes from a liquid to a gel forming a blood changes clot the mechanism of coguletion involves activation adhesion and

and aggregation of platelets as well as deposition and maturation of fibrin.

Vasoconstriction * is narrowing of blood vessels resulting from contraction of the muscular wall vessels, in particular the large arteries and small arterioles On a large level vasoconstriction is one mechanism by which body regulates and maintains mean arterial pressure.

* The plug provides a temporary blockage of the break in the vasculture. As such platelet plug formation occurs after vasoconstriction of the blood vessels but before the creation of the fibrin mesh clot, which is the more parment solution to the injury

Q No 04 :- ANSWERS

ABO System :-

The classification of human blood based on the inherited properties of red blood cells (erythrocytes) as determined by the presence or absence of 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. The A, B, and O blood groups were first identified by Austrain immunologist karl landsteiner in 1901.

Blood containing red cells with type A antigen on their surface has in its serum (fluid) antibodies against type B red cells. If in transfusion, type B blood

is injected into persons with type A blood the red cells in the injected blood will be destroyed by the antibodies in the recipients blood can be In the same way type A red cells will be destroyed by anti A antibodies in type B Blood. Type O blood can be injected into persons with type A, B, or O Blood unless there is incompatibility with respect to some other blood group system also present. Persons with type AB blood can receive type A, B, or O blood.

System	Recipient Type	Donor Red cell	Donor plasma Type
ABO	A	A* or O	B or AB
ABO	B	B or O	O, A, B or AB
ABO	O	O only	AB
ABO	AB	AB*, A*, B,	+ive OR -ive
Rh	+ive	+ive OR -ive	+ive OR +ive
Rh	-ive	-ive, OR +ive	"

Q NO 5 :- ANSWERS.

PART (i)

* When people bang their heads it can be difficult to tell whether they have done any serious damage.

First of all you call to Reseve of your country. Then

* Apply a wrapped ice pack to the injured area fo 10 minutes.
* Observe them carefully for the next 48 hours No one should go home to empty house for the 48 hours following a severe head injury. if you notice any of these signs of brain injury (see) below phone an ambulance immediately.
* If the casualty is unusually drowsy or can't be woken, or they

any symtoms of a brain injury (see below) call an ambulance immediately. People can go to sleep following a head injury but only they appear to completely alert and showing no signs of confusion, losing conciousness or any ether Symptoms. If worries seek medical attention immediately.

PART II

First of all we are no touching of anything and also no meet with family members.

First we wash our hand one minute and then we wash our clothes and bath our body. And after we are decide to live

a separate room. And separat eating things for fourteen days. After we test covid that we are positive patients. and after wait to his result of our test that w How much we are exposed.

Then my test covid is tive we are going to hospital and fights with covid virus.