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*Section A*

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*Paper Pathology*

**Q1.What are the circulating cells in acute inflammation?Also write the characteristics of Acute inflammation.**

Ans: *CIRCULATING CELL:*

*THE circulating CELL ON ACUTE INFLAMMATION are the fallowing .*

*.NEUTROPHILS*

*.MANOCYTES*

*.EOSINOPHILS*

*.LYMPHOCYTES*

*.BASOPHILS*

*.PLATELETES.*

*CHARACTERISTICS OF ACUTE INFLAMMATION:*

*.SHORT DURATION*

*.Last from a few minutes upto a few days.*

*.formation of inflammatory exudate.*

*.Predominantly neutrophil leukocyte accumulation.*

*.exudation of fluid and plasma proteins edema*

*.Emigration of leukocytes mainly neutrophils to the side of injury.*

**Q2. Write a note on infarction and its types and write a note on Mast cells.**

Ans: *INFARCTION*:

*The formation of a localizad area of ischemic necrosis within a tissue or organ due to impaired arterial supply or the venous drainage*

*The necrosis area is called “infarct”.*

*An extremely important cause of clinical illness:*

*…myocardiac infarction*

*…cerebral infarction*

*TYPES OF INFARCTON:*

* *White infarcts*
* *Red infarcts*
* *Septic infarcts*
* *WHITE INFARCTS:*
* *Arterial occlusion*
* *Solid, compact organs*
* *Few collateral circulation*
* *(spleen, kidney, heart,brain etc)*
* *Morphology*
* *Gross*
* *Dull pale, dry, wedge-shaped necrotic lesion*
* *A hemorrhagic zone surrounding*

*RED INFARCTS;*

. *Arterial occlusion*

*. Venous occlusion*

*. Loose tissue*

*. Dual circulations: lung , small intestine*

*EXAMPLE:*

. *Brain infarction*

*SEPTIC INFARCTS:*

* *Bacteria containing emboli*
* *May form abscess and pus*

*MAST CELLS:*

*Found in both acute and chronic inflammation.*

*Expresses surface receptor that bind to Fc portion of IgE.( when certain antigen bind with IgE ).*

*The mast cell degranulate release histamine.*

*Granules release histamine and prostaglandins during allergic reactions to foods, insect venom, or drugs, sometimes with catastrophic results (e.g. anaphylactic shock).*

**Q3. Which are the cells having proliferative capacity?Explain them,also write about the characteristics of Benign tumor?**

Ans: *CELL PROLIFERATION:*

*.Several cell types proliferation during tissues repair . Remnants of the injured tissues which attempt to restore normal structure]*

*VASCULAR endothelial cell to create new vessels that provide the nutrient needed for the repair process a]*

*FIBROBLASTS the sources of the fibrous tissues that forms the scars to fill defects that cannot be corrected by regeneration].*

*THE ability of tissues to repair themselves is determined in part by their intrinsic proliferative capacity.*

*Tissues of the body are divided into three groups.*

*LABILE CONTINOUSLY dividing tissues.*

*STABLE tissues*

*PERMANENT TISSUES.*

*CHARACTERISTICS OF BENIGN TUMORS:*

*1]never give matastasis and relapse.*

*2]grow slowly and have few mitotic figures only tiisues atypism.*

*3] cell resemble normal cells and tumors architecture resembles that if the mature organ homological by appearance to architectonics color consistence.*

**Q4. What is hypovolumic shock?Explain along with its conditions.**

Ans: *HYPOVOLEMIC SHOCK:*

*Hypovolemic shock is a medical emergency and an advanced from of hypovolemia due to insufficient amount of blood and or fluid inside the human body to let the heart pump enough blood to the body . more specifically hypovolemic shock occurs when there is decreased intravascular volume to the point of cardiovascular compromise . the hypovolumic shock could be due to serve dehydration through a variety of mechanisms of from blood loss.*

SIGNS AND SYMPTOMS:

*SYMPTOMS of hypovolemic shock can be related to volume depletion electrolyte imbalances or acid base disorders that accompany hypovolrmic shock*.

*CAUSES:*

*THIRD SPACEING*

*FLUID LOSS*

*GASTRONINTESTINAL*

*KIDNEY*

*SKIN.*

**Q5.What is Edema?Explain its types also write about the classification of Thrombosis.**

Ans: *EDEMA:*

*Edema is swelling caused by excess fluid trapped in your body tissues although edema can affect any part of your body you may notice it more in your hands arms feet ankles and legs.*

*Taking medication to remove excess fluid and reducing the amount of salt in your food often relieves edema . when edema is a sign of an underlying disease the disease itself requires separate treatment.*

*Types:*

*PERIPHERAL EDEMA:*

*THIS affects the feet ankles legs hands and arm sign include swelling puffiness and difficult moving apart of the body .*

*PULMONAY EDEMA:*

*EXCESS fluid collects in the lung making breathing difficult.*

*CEREBRAL EDEMA:*

*This occurs in the brain*.

*THROMBOSIS:*

*THROMBOSIS is the formation of a blood clot inside a blood vessels obstructing the flow of blood through the circulatory system when a blood vessels is injured the blood uses platelets thrombocytes and fibrin to form a blood clot to prevent blood loss . even when a blood vessels is not injured blood clots may from in the body begins to travels around the body is know as an embolus.*

*Classification of THROMBOSIS:*

*VENOUS THROMBOSIS:*

*Venous thrombosis is the formation of a through blood clot with in a vein .there are several diseases which can be classified.*

*DEEP VEIN THROMBOSIS:*

*DEEP vein thrombosis DVT is the formation of A blood clot with a deep vein it most commonly affects leg veins such as the femoral vein three factor are important in the formation of a blood clot with in a deep vein these are the rate of blood flow the thickness of the blood and qualities of the vessels wall classical signs of DVT include swelling pain and redness of the effected area.*

*PORTAL VEIN TROMBOSIS:*

*Portal vein thrombosis s affects the hepatic portal vein which can lead to portal hypertension and reduction of the blood supply to the liver*.

***THE END***