FINAL TERM EXAMINATION ( spring 2020)

Paper = Haematology

Bs. MLT 2nd semester

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Q5

Ans:

DEF:

Anemia:

A decrease in haemoglobin level for the age

And sex of a person is called as Amelia.

* On the basis of morphology and with regard of red

Cell induce can classify Amelia into the following.

**Microcytic hypochromic Anemia.**

This types of anemia individual RBCs are smaller in size and contain and

Sub normal amount of homoglobin.

Classification of morphological anaemia:

* **Microcytic anemias:**

\_ iron deficiency

\_ thalassemia

\_ siderroblastic anemia

\_ Anemia of chronic diseases.

* **Microcytic anaemias:**

**\_** Anemia of chronic diseases ( most classes)

**\_** iron deficiency ( early)

**\_** Anemia of renal diseases.

**\_** Morrow failure.

**\_** Hypothyroidism.

* **Microcytic enemies:**

**\_**  Hypothyroidism.

**\_** Mylodysplasia.

**\_** Liver disease.

\_ Megaloblastic anemia( folate or cobalamine deficiency)

\_ Hemolytic Anaemia ( rreticulocytosis).

Q 1:

ANS:

Def:

**Erythropoiesis:** is the process which produces red blood cells, to

Which is development from erythropoitic stem cell to mature red

Blood cell. It is stimulated by deccreased O2 in circulation, which is

****Detected by the kidneys, which then secrete the hormones erthropoietin.

**Proerythroblast**

* **15to20 micron**
* **Nucleus with multiple nucleoli**
* **Basophilic cytoplasmic with perinuclear halo**
* **No haemoglobin**
* **Mitosis present**

**Basophillic:**

* **Slight reduction in size 14to 17**
* **Large nucleus**
* **Basophillic cytoplasmic**
* **Active mitosis**

**Polychromatophillic**

* **10 to15um size**
* **Polychromasia**
* **Reduce mitosis**
* **HB start appearing**

**Psychosomatic normoblast:**

* **Mitosis absent**
* **Cytoplasm is like mature red reflecting high IN constant**
* **Acidophilic erythroblast which is the last precursor with a nucleus**

**Reticulocytes:**

* **Nucleus extruded**
* **Testicular nuclear parchment.**

**DURATION OF ERTHROPOIESIS:**

* **HSC to RBC 21 days**
* **Maturation phase. From reticulocytes to RBC 2 days.**
* **Differentiates phase. From pronormoblast to reticulocytes phase 5 days**

Q3:

Ans:- Granulupoiesis:

 Under the stimulation of cytokines and the CFU – GEMM differentiates into the CFU-GM the common precursor for both neutrophils and monocytes

This the further differentiates into CFU-G.

FORMATION OF NEUTROPHILLSS.

1. **Myeloblast.** An early precursor cell diameter 15- 20um lower nuclear cytoplasmic ratio, no cytoplasmic granules.

**Large** cell with a large nucleus which demonstrates basophilic stabbing. This stage exists for all granulocytes.

1. **Promyeoloctess.** It is the nest stage of maturation, similar in size and appearance to myeloblast.
2. **Myelocyt.** Secondary granules become apparent.
* Increased size and smaller primary granules.
* Secondary granules have several bactericidal enzyme.
* Nucleus become infected.

4 . **Metamyelocyte.** Next stage in myelopooiesis is a cell having more indebted and smaller nucleus

And having more granules.

**5.Mature neutrophils.** Arise from stem cells in approx. 10 days remain visible in systemic circulation for 8 to 12 hours

Q2:

Ans: the common causes of poor blood filam in the following below.

* Drop of blood to large of too small .
* Holes on dokan slide contaminated with fat or France.
* Irregular spread with ridges and long tail edge of spreader dirty or capped just slide.
* Spread slide spreader slide pushed across the slide a jersey manner
* Cellular generative change defray in fixing adequate fixing time methanol contaminated with water
* Failure to push the spreader slide completely across the slide
* .

Q4:

Ans:-

 Define

 Anemia is a number of red blood cell are deficiency in total haemoglobin contain per unite of blood value.

 Disease cause

* Chronic blood lose
* Uterine
* Gastrointestinal e g peptic ulcer oesophageal varise,ingestion, partial gastretomy,carcinoma of stomach
* Painfully body
* Splenomegaly
* Shortness of breath
* Rarely, haematuria, aemoglobinuria pulmonary
* Skin polar