AAH-003-038202 Seat No. _____

B. Voc. (MLMDT) (Sem. II) (CBCS) Examination

April / May - 2016

MLMDT-2.2 : Hematology

Faculty Code : 003
Subject Code : 038202

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

Instructions : (1) All questions are compulsory.
(2) The paper is divided in two sections.
(3) There is no separate OMR sheet will be provided for Section I.
(4) Figures on right indicate marks.

SECTION - I

1 Answer the following MCQ : **20**

(1) The percentage of formed elements in the blood is

(A) 35% (B) 45%

(C) 50% (D) 65%

(2) During blood coagulation, thromboplastin is released by

(A) RBC

(B) WBC

(C) Blood plasma

(D) Clumped platelets and damaged tissue

(3) Sickle cell disease is

(A) An autosomal recessively inherited condition, affecting the white cells

(B) Inherited red blood cell disorder

(C) An autosomal recessively inherited condition, affecting plasma

(D) A non autosomal recessively inherited condition, affecting the haemoglobin

(4) Following types of leukocytes are characterized by the presence of S shaped nucleus

(A) Eosinophil (B) Basophil

(C) Monocyte (D) Neutrophil

(5) Megakaryocytes give rise to

(A) Thrombocytes (B) Agranulocyte

(C) Granulocyte (D) Erythrocytes

(6) The type of anemia that is fairly common and caused by insufficient dietary iron is

(A) Aplastic anemia

(B) Iron deficiency anemia

(C) Megaloblastic anemia

(D) Hemolytic anemia

(7) Which type of condition is directly related to bone marrow suppression?

(A) Hemolytic anemia

(B) Aplastic anemia

(C) Megaloblastic anemia

(D) Sickle cell anemia

(8) Most common type of congenital leukemia is

(A) ALL (B) AML

(C) CLL (D) CML

(9) Excessive Iron overload in body results in

(A) Hemosiderosis

(B) Cirrhosis

(C) Hemochromatosis

(D) Iron deficiency anemia

(10) Multiple myeloma is a cancer of

(A) Liver (B) Blood

(C) Plasma cells (D) RBC

(11) What is the most common inherited bleeding disorder?

(A) ITP

(B) Hemophilia A

(C) Hemophilia B

(D) von Willebrand's disease

(12) Choose the correct order of hemostasis steps

(A) Blood vessel spasm, platelet plug formation, blood coagulation

(B) Blood coagulation, platelet plug formation, blood vessel spasm

(C) Blood vessel spasm, blood coagulation, platelet plug formation

(D) Platelet plug formation, blood vessel spasm, blood coagulation

(13) The anchoring of platelets to the injured vessel wall is facilitated by the binding of von Willebrand factor to which of the following?

(A) Platelet factor 3

(B) Glycoprotein lb

(C) Platelet factor 4

(D) Thromboplasmin

(14) Coagulation cascade IN VIVO is initiated by

(A) Tissue factor (B) Factor IX

(C) Factor VII (D) Thrombin

(15) Hemophilia A is caused by deficiency of

(A) Factor IX (B) Factor VIII

(C) Factor X (D) Factor V

(16) Granules filled with histamine and heparin is present in

(A) Monocyte (B) Eosinophil

(C) Basophil (D) Neutrophil

(17) Myeloid dysplastic syndrome is a stem cell disorder in which

(A) Stem cells reproduce excessively and differentiate into the various types of blood cells

(B) Stem cells fail to reproduce and differentiate into the various types of blood cells

(C) Stem cells produce excessively and differentiate into the various types of white blood cells only

(D) Stem cells reproduce and differentiate into the various types of red blood cells only

(18) An increase in the number of circulating red cells above established normal limits is seen in

(A) Polycythemia

(B) Thrombocytopenia

(C) Acute leukemia

(D) Myelofibrosis

(19) Which of the following is/are true statements?

(A) Arterial thrombi tend to form because of platelet activation or endothelial injury

(B) Venous thrombi tend to form because of blood stasis and factor activation

(C) Both

(D) Neither

(20) The anticoagulant used to collect blood specimens for most coagulation studies is usually

(A) Heparin

(B) Sodium citrate

(C) Flouride

(D) Double oxalate

SECTION - II

2 (a) Answer in brief : (any 3) **3×2=6**

(1) Write morphological classification of anemia with example.

(2) Enlist the laboratory test for the diagnosis of Iron Deficiency Anemia.

(3) What is leukemia? Give its classification.

(4) Write a note on peripheral blood findings in CML.

(5) Write the difference between granulocytes and agranulocytes,

(6) Define lymphocytopenia and write its causes.

(b) Answer in brief : (Any 3) **3×3=9**

(1) Write the steps of basophil formation,

(2) Enlist the causes of hemolytic anemia.

(3) What are the symptoms of megaloblastic anemia?

(4) Enlist the disorders of lymphocytes with its causes.

(5) Define malignant lymphoma and write its types.

(6) Write the basic steps of venipucture.

(c) Answer in detail : (Any 2) **2×5=10**

(1) State the functions of blood.

(2) Write a note on RBC formation.

(3) Write a note on sickle cell anemia.

(4) Explain in detail about granulocytes and their disorders.

(5) Write a note on megaloblastic anemia.

3 (a) Answer in brief : (Any 3) **3×2=6**

(1) What are the sites of hemopoiesis?

(2) Define thalassaemia and classify them.

(3) What is lodiopathic Thrombocytopenic Purpura?

(4) Explain myeloproliferative disorder with examples.

(5) Enlist the cell adhesion factors produced by vascular endothelium.

(6) Write the common steps of intrinsic and extrinsic pathway.

(b) Answer in brief : (Any 3) **3×3=9**

(1) Enlist the coagulation factors.

(2) Define fibrinolysis and enlists its activator.

(3) Write a note on von Willebrand's disease and its different forms.

(4) Write the symptoms and management of acute leukemia.

(5) Classify acute leukemia.

(6) What is hematoma? Write about its prevention and management.

(c) Answer in detail : (Any 2) **2×5=10**

(1) Write a note on hemostasis.

(2) Write etiology, symptoms and laboratory diagnosis of ALL.

(3) Write a note on hemophilia.

(4) Write a note on different types of anticoagulants with their use.

(5) Write a note on specimen rejection criteria for blood.
