

## قائمة الاسئلة

## تجلط الدم - شعبة المختبر اتالمستوى الثالث - درجة الاختبار (60)

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- 1) Which combination is true about haemostasis: (i) Vascular factors causes vasodilation. (ii) Platelet adhere to injured surface to form plugs. (iii) Plasma contains blood coagulation factors that forms Fibrin clot. (iv) Endothelial factors is not important for blood coagulation.
  - 1) i and ii are true.
  - 2) + i, ii and iii are true..
  - 3) ii and iii are true.
  - 4) All of the above are true.
- 2) Qualitative platelet disorders means:
  - 1) Abnormal distribution
  - 2) Number defects
  - 3) + Function defects
  - 4) Coagulation factors disorder
- 3) Thrombopoietin secreted by:
  - 1) Spleen
  - 2) Bone marrow
  - 3) + Liver and kidneys
  - 4) Lymph nodes
- 4) Normally blood dose not clot in blood vessels because:
  - 1) Due to the presence of plasminogen activators
  - 2) The blood vessels are covered with smooth endothelial cells and presence of coagulation inhibitors.
  - 3) Due to the presence of FDPs
  - 4) + All the choices
  - 5) None of them
- 5) Platelets formed by fragmentation of megakaryocyte cytoplasm, approximately each megakaryocyte giving rise to:
  - 1) + 1000-5000 platelets
  - 2) 5000-10000 platelets
  - 3) 100-500 platelets
  - 4) All the choices
- 6) Inheritance of von Willebrand Disease is:
  - 1) + Autosomal dominant
  - 2) Heterozygote carriers in whom X chromosome
  - 3) X-linked recessive manner
  - 4) -
- 7) Platelet Contain the contractile proteins are:
  - 1) + Actin and myosin
  - 2) PF-4 & β-TG
  - 3) Fibrinogen & albumin
  - 4) All the choices
- 8) Which of the following is associated with a decrease in platelet counts?
  - 1) Systemic lupus erythematosus
  - 2) + Dengue fever
  - 3) Corticosteroid
  - 4) Iron deficiency anemia
- 9) Which of the following statements is NOT TRUE about immune thrombocytopenia?



- 1) It is usually acute in children
- 2) It is associated with systemic lupus erythematosus
- 3) + It is more common in men than women 3:1%
- 4) It may be treated by gammaglobulin infusions
- 10) Dense granules contain all of the following Except:
  - 1) Serotonin
  - 2) Calcium ions.
  - 3) Adenosine diphosphate (ADP)
  - 4) + Fibrinogen
- 11) The integrity of the intrinsic coagulation system is evaluated by the :
  - 1) + APTT
  - 2) PT
  - 3) Bleeding time
  - 4) Thrombin time test
- 12) Vitamin K-deficiency most commonly shows up as an abnormality on which of the following screening tests:
  - 1) + Prothrombin time (PT)
  - 2) Platelet count
  - 3) Partial thromboplastin time (PTT)
  - 4) Bleeding time
- 13) In Christmas disease:
  - 1) + If PTT is prolonged, it can be corrected by mixing equal volumes of the patient's plasma with plasma absorbed with aluminum hydroxide.
  - 2) The PT is prolonged
  - 3) All the choices
  - 4) None of them
- 14) Laboratory diagnosis of Liver Disease are decreased in all clotting factors are true Except:
  - 1) VII
  - 2) III
  - 3) II & I
  - 4) + XII & VIII
- 15) Coagulation Factor V is:
  - 1) + Stored in PLT  $\alpha$ -granules
  - 2) Stored in endothelial cells
  - 3) Contact factor
  - 4) Stored in PLT delta-granules
- 16) Prothrombin time(PT) detect the :
  - 1) Both pathways
  - 2) Intrinsic pathway & Common pathway
  - 3) + Common pathway & Extrinsic pathway
  - 4) All the choices
- 17) Cryoprecipitate Prepared from FFP, which Contain all the following Except:
  - 1) + Factor V
  - 2) Fibrinogen
  - 3) Factor VIII
  - 4) Von Willebrand factor
  - 5) None of the above
- 18) Haemophilia are:
  - 1) Autosomal dominant inheritance
  - 2) + Cause Soft tissue hematomas

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- Autosomal dominant inheritance & Cause Soft tissue hematomas
- 4) VIIIa and XIIa deficiency
- 19) Glanzman thrombasthenia caused by:
  - 1) Defective GP IIb IIIa
  - 2) Vascular disorder.
  - 3) Inherited Platelet functional defects
  - 4) + Defective GP IIb IIIa & Inherited Platelet functional defects
- 20) Hemophilia may be suspected in patient with:
  - 1) Low platelets count
  - 2) Prolonged PT
  - 3) + Prolonged PTT
  - 4) Prolonged bleeding time
- 21) Von Willebrand disease: In
  - 1) is inherited as autosomal dominant gene
  - 2) the bleeding time is usually prolonged
  - 3) the factor VIII is usually low
  - 4) + All the choices
  - 5) None of them
- 22) INR means::
  - 1) + International normalized ratio
  - 2) International normalized range
  - 3) International normalized reagents
  - 4) All the choices
- 23) Factor X Known as:
  - 1) Proconvertin
  - 2) Proaccelerin
  - 3) Hageman factor
  - 4) + Stuart factor
- Which of the following factors is not measured by the PT?
  - 1) II.
  - 2) VII.
  - 3) + VIII.
  - 4) V.
  - 5) X
- 25) Activated Partial Prothrombin Time (APTT) measures all coagulation factors, Except for:
  - 1) + VII and XIII.
  - 2) VIII and VII.
  - 3) VIII and V.
  - 4) I and V.
- 26) A patient has a prolonged PT but a normal APTT. What is the most likely factor deficiency?
  - 1) Factor X.
  - 2) + Factor VII
  - 3) TF
  - 4) Factor V
- 27) Which test is used to monitor warfarin anticoagulant therapy?
  - 1) APTT.
  - 2) + PT.
  - 3) Bleeding time.
  - 4) Euglobulin lysis test.



- Which ONE of these is NOT an inhibitor of platelet activation?
  - 1) Prostacyclin
  - 2) Nitric oxide
  - 3) + Phospholipid
  - 4) None of these
- 29) Factor XIII is activated by which factor?
  - 1) + Thrombin.
  - 2) Factor V.
  - 3) Fletcher Factor.
  - 4) Factor IVa.
- 30) Which of the following anticoagulants works by neutralizing, thrombin in vivo:
  - 1) EDTA
  - 2) Thromboplastin
  - 3) ACD
  - 4) Oxalate
  - 5) + Heparin.
- 31) Regarding fibrinolysis:
  - 1) The FDPs are usually low
  - 2) + Plasminogen is changed into plasmin by plasminogen activators.
  - 3) Streptokinase is used medically to stop bleeding when there is excessive fibrinolysis
  - 4) None of the above.
- 32) Protein C and its cofactor protein S proteolytically inactivate factors:
  - 1) VIIa and Xa
  - 2) IXa and VIIa
  - 3) + Va and VIIIa
  - 4) VIIIa and XIIa
- Nose bleeding, deep bruising, and gum bleeding are usually manifestations of which type of coagulation disorder?
  - 1) + Platelet defect.
  - 2) Thrombosis
  - 3) Clotting factor disorder
  - 4) Vascular disorder.
- Which of the following are defects of platelet Adhesion:
  - 1) Glanzmann's thrombasthenia
  - 2) Hermansky-Pudlak syndrome
  - 3) + Bernard Soulier syndrome
  - 4) Wiskott-Aldrich
- 35) Plasmin is capable of:
  - 1) hydrolyzing thrombin.
  - 2) + hydrolyzing fibrinogen
  - 3) hydrolyzing fibronectin
  - 4) Hydrolyzing thrombin
- 36) For coagulation studies blood is mixed with sodium citrate in the ratio of:
  - 1) 1:10 in a plastic test tube
  - 2) + 1:9 in a plastic test tube.
  - 3) 1:4 in a plastic test tube
  - 4) 1:6 in a glass test tube
- 37) Some patients have antibodies to EDTA, which may cause platelets to clump in EDTA specimens. How might a correct platelet count be done in these patients?

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- Do an indirect platelet count from smear of EDTA Sample.
- 2) Use lithium heparin as the anticoagulant
- 4) Use sodium citrate as the anticoagulant, one part citrate to nine parts blood, and use platelet count from smear prepared direct from syringe drop.
- 4) Do nothing, just report that patients platelets clump.
- 38) The intrinsic pathway is critical in initiating of blood clotting it takes in :
  - 1) Occurs on the surface of activated platelets
  - 2) + Initiate a clot ~ 1-6 minutes
  - 3) Initiation of clot in  $\sim$ 15 seconds
  - 4) proteins adsorb and are converted
- 39) Vasoconstriction is molecules, which include caused by several regulatory:
  - 1) fibringen and vWF
  - 2) ADP and EPI
  - 3) Collagen and actomyosin
  - 4) + Thromboxane A2 and serotonin
- 40) Platelets are direct fragments of the:
  - 1) Nucleus of the megakaryoblast
  - 2) + Cytoplasm of the megakaryocyte
  - 3) Cytoplasm of the megakaryoblast
  - 4) Nucleus of the megakaryocyte
- 41) In vascular bleeding disorders, the standard screening tests are normal:
  - 1) Bleeding time, Plats counts
  - 2) PT
  - 3) APTT
  - 4) + All the choices
- 42) The chief function of the platelet is to:
  - 1) Fight infection
  - 2) + Aid in coagulation
  - 3) Antibody formation
  - 4) Carry oxygen
- 43) The precursor of the platelet is:
  - 1) Meyloblast
  - 2) Megablast
  - 3) + Megakaryocyte
  - 4) Plasmablast
- 44) The term thrombocytopenia indicates a/an
  - 1) + Abnormally low number of thrombocytes
  - 2) Abnormally high number of thrombocytes
  - 3) Normal number of platelets
  - 4) Abnormally low total white blood count
- The normal number of thrombocytes per/mm3 is:
  - 1) 5,000 10,000
  - 2) 125,000 150,000
  - 3) + 150,000 450,000
  - 4) 500,000 1,000,000
- Which of the following is not a characteristic of platelets?:
  - 1) + The presence of a nucleus
  - 2) Size of 2 to 4 um
  - 3) Cytoplasm a light blue with red-purple granules



- 4) A discoid shape as an inactive cell
- The cell that functions as a plug at the site of bleeding is the:
  - 1) Eosinophil
  - 2) Red cell
  - 3) + Platelet
  - 4) Neutrophil
- 48) Which of the following anti-clotting substances acts on factors V and VIII?
  - 1) TIII
  - 2) Plasmin
  - 3) TFPI
  - 4) + Protein C
- 49) The largest blood cell found in the bone marrow is a:
  - 1) Megakaryoblast
  - 2) + Megakaryocyte
  - 3) Monocyte
  - 4) Pormonocyte
- 50) Which ONE of these statements is TRUE concerning fibrinolysis?
  - Plasminogen is a key protein and is activated following conversion into tissue plasminogen activator (tPA)
  - 2) + tPA is released after stimuli such as trauma, injuries or exercise (It then converts plasminogen to plasmin.)
  - 3) Fibrinolysis is systemic and not localized to the clot
  - 4) Fibrinolytic agents are too powerful to allow their therapeutic use
- 51) The PFA-100 measures:
  - 1) + platelet functions
  - 2) platelet counts numbers
  - 3) the change in blood flow pressure in vessels
  - 4) all the above are correct
- 52) Epistaxis is mean
  - 1) Blood in the urine
  - 2) Vomiting of blood
  - 3) Excessive menstrual bleeding
  - 4) + Nose bleed
- The factor that is responsible for stabilizing a soluble fibrin monomer into an insoluble clot is:
  - 1) fII
  - 2) fX
  - 3) fXII
  - 4) + fXIII
- Which of the following is/are true statements?
  - 1) Ecchymoses and petechiae tend to imply platelet problems.
  - 2) Hemarthrosis joint hemorrhages and deep muscle tend to imply clotting factor problems.
  - Both Ecchymoses and petechiae tend to imply platelet problems. and Hemarthrosis joint hemorrhages and deep muscle tend to imply clotting factor problems.
  - 4) Neither.
- 55) The extrinsic pathway is critical in initiating of blood clotting it:
  - 1) Occurs on the surface of activated platelets
  - 2) Initiate a clot  $\sim 1-6$  minutes
  - 3) + Initiation of clot in ~15 seconds
  - 4) proteins adsorb and are converted



- The normal haemostatic response to vascular damage depends on three major factors. Which ONE of these is not included in that group?
  - 1) The blood vessel wall
  - 2) + Stasis of the blood flow
  - 3) Circulating platelets
  - 4) Blood coagulation factors
- 57) Which ONE of these statements concerning platelets is NOT TRUE?
  - 1) + They extrude their nucleus as they pass through the spleen
  - 2) The megakaryocyte matures by endomitotic synchronous replication so that the number of nuclear lobes increases within the cell
  - 3) Thrombopoietin is the major regulator of platelet production and is produced by the liver and kidneys
  - 4) The platelet lifespan is 7-10 days
- 58) Which ONE of these statements concerning the structure of platelets is NOT TRUE?
  - 1) Adhesion to collagen is mediated by glycoprotein Ia (GPIa)
  - 2) α-Granules contain clotting factors, vWF and platelet derived growth factor (PDGF)
  - 3) HPA-1a and HPA-1b are alleles that act as important platelet antigens
  - 4) + Platelets do not express ABO antigens
- 59) Which ONE of these statements is TRUE concerning von Willebrand factor?
  - 1) It cross-links platelets to each other
  - 2) It carries factor IX
  - 3) After release it forms large aggregates that are needed for its function
  - 4) + Plasma vWF is derived from endothelial cells
  - 5) All the choices
- 60) Which of the following initiates the coagulation cascade IN VIVO?
  - 1) Factor XII
  - 2) Thrombin
  - 3) Factor X
  - 4) + Tissue factor