

# Q of final exam in 1425 – 1426 h ( P. 3)

## PART I\ One Best Response

- 1- **A monoclonal increase of immunoglobulin ...**
  - a- Rheumatoid arthritis
  - b- Tuberculosis
  - c- Chronic liver disease
  - d- Multiple myeloma
  - e- Sarcoidosis
  
- 2- **Which of the following coenzymes is required for succinyl Co-A**
  - a- 5'Deoxyadenosyl cobalamin
  - b- Pyridoxal Phosphate
  - c- Tetrahydrofolate
  - d- Thiamine pyrophosphate
  - e- Biotin
  
- 3- **The following ultraviolet damage of DNA in the skin**
  - a- DNA Polymerase 1 recognises the damaged area
  - b- Purine dimmers are formed
  - c- Both strands are cleaved
  - d- A specific exonuclease removes the damaged area
  - e- DNA Polymerase Beat splices the newly synthesis
  
- 4- **Adult hemoglobin**
  - a- Is formed of two dimmers: (alpha 2 & Beta 1) 1 & (alpha 1 &Beta 2) 2
  - b- Contains a negatively charged pocket for attachment ...
  - c- Is responsible for oxygen carriage from tissues to ...
  - d- Can bind carbon dioxide directly
  - e- Undergoes degradation and resynthesis during the ...
  
- 5- **Haptoglobin is**
  - a- alpha 1 globulin
  - b- alpha 2 globulin
  - c- Beta 1 globulin
  - d- Beta 2 globulin
  - e- Gamma globulin



- 6- **All about erythropoiesis are true except**
- a- In infancy all of the bone marrow is hematopoietic
  - b- In adult life hematopoietic marrow is confined to the central ... of femurs & humerus
  - c- Pregnancy is characterized by an increased rate of erythropoiesis
  - d- Intrauterine erythropoiesis takes place mainly in the b... trimesters
  - e- Liver and spleen can resume their fetal hematopoietic ...
- 7- **Regarding Embden-Myerhof pathway ( glycolysis )**
- a- It needs the presence of glucose-6-phosphate dehydrogenase
  - b- Pyruvate is its end-product in RBCs
  - c- It produces reduced glutathione
  - d- It produces NADPH
  - e- It is an important energy source for the normal action ion ...
- 8- **The major cation in RBCs is**
- a- Sodium
  - b- Potassium
  - c- Calcium
  - d- Zinc
  - e- Magnesium
- 9- **Alpha 2 macroglobulin is**
- a- Of low molecular weight
  - b- The main plasma protein
  - c- Synthesized by lymphocytes
  - d- One of the -ve acute phase reactants
  - e- Retained in patients with nephrotic syndrome
- 10- **The third hemoglobin band migrating from site of ... electrophoretic separation of hemoglobin**
- a- Hb A<sub>2</sub>
  - b- Hb S
  - c- Hb A
  - d- Hb C
  - e- Hb F
- 11- **Ketonuria might be due to one of the following conditions EXCEPT**
- a- Diabetes mellitus
  - b- Glycogen storage disease
  - c- Prolonged starvation
  - d- Prolonged vomiting especially in pregnant women
  - e- Diabetes insipidus



- 12- The first marker that rises in acute myocardial infarction is**
- a- AST
  - b- CK-MB
  - c- LDH
  - d- ALP
  - e- CK
- 13- A technician wrongly added a solution to a suspension of RBCs, but ... hemolysis, he most probably added**
- a- Hypnotic solution
  - b- Soap solution
  - c- Chloroform
  - d- Detergent
  - e- Isotonic solution
- 14- The urinary test that can differentiate between diabetes mellitus and ...**
- a- Urine volume
  - b- Urine color
  - c- Specific gravity
  - d- Nitrite test
  - e- Bilirubin
- 15- The anion exchange protein in the red cell membrane**
- a- Ankyrin
  - b- Band 3
  - c- Band 4.1
  - d- Actin
  - e- Spectrin
- 16- All of the following are functions of blood EXCEPT**
- a- Synthesis of carrier proteins
  - b- Transport of hormones
  - c- Coagulation
  - d- Regulation of body temp.
  - e- Buffering function
- 17- Aging of RBC is associated with**
- a- Increased cell density
  - b- Increased potassium content
  - c- Decreased osmotic fragility
  - d- Increased sialic acid
  - e- Increased deformability



- 18- All the following can be NORMALLY seen in both the bone marrow & ...**
- a- Mature RBC
  - b- Platelets
  - c- Lymphocytes
  - d- Normoblasts
  - e- Reticulocytes
- 19- Proteins destined for secretion are synthesized in**
- a- Golgi apparatus
  - b- Smooth endoplasmic reticulum
  - c- Free ribosomes
  - d- Rough endoplasmic reticulum
  - e- Mitochondria
- 20- The RBCs acquire their flexibility through their**
- a- Lipid structure
  - b- Production of NADPH
  - c- Protein structure
  - d- Production of NADH
  - e- Carbohydrate structure
- 21- The red blood cell mass is**
- a- High in individuals living at sea level
  - b- 60-80 mg/ml
  - c- Affected by cardio-pulmonary function
  - d- The same in females and males
  - e- Decreased with decreased kidney perfusion
- 22- The shape of the RBCs is maintained by the production of**
- a- Reduced glutathione
  - b- NADH
  - c- ATP
  - d- Lactate
  - e- NADPH
- 23- ONE of the following statements about the composition of RBCs is INCORRECT**
- a- Water content is about 65%
  - b- Protein content is about 31-33%
  - c- Solid content is about 35%
  - d- Hemoglobin is the chief protein
  - e- The specific gravity is 1.026



- 24- The plasma viscosity is**
- a- 7-8 atmosphere
  - b- Higher in neonates
  - c- Increases with anemia
  - d- 5-6 times water
  - e- Similar in males & females
- 25- Concentration of one of the following protein is higher in plasma than ...**
- a- Ceruloplasmin
  - b- Fibrin
  - c- Albumin
  - d- Fibrinogen
  - e- Transferring
- 26- Protein electrophoresis**
- a- Is a quantitative technique
  - b- Requires antigen-antibody reaction for complete separation
  - c- Depends on migration of charged particles to the electrode carrying opposite charge
  - d- Indicates separation of one protein in each broad band
  - e- Used to separation of proteins from lipid
- 27- The binding site for plasmodium falciparum in the red cell membrane**
- a- Glycophorin B
  - b- Spectrin
  - c- Glycophorin A
  - d- Ankyrin
  - e- Glycophorin C
- 28- Protein that is expected to be decreased in Wilson's disease is**
- a- Alpha 1 antitrypsin
  - b- Alpha 2 macroglobulin
  - c- Ceruloplasmin
  - d- Transferrin
  - e- Hemopexin

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## PART II\ True & False

- 1- Acute phase reactants are specific to acute disease
- 2- Prolonged treatment with isotretinoin leads to hyperlipidemia
- 3- Hemolytic anemia is one of the causes of an increase in urinary urobilinogen
- 4- At PH 8.6 most of the plasma proteins carry –ve charges
- 5- The eukaryotic mRNA is usually polycistronic
- 6- Pernicious anemia may be associated with reversible CNS manifestations
- 7- DNA ligase is required for DNA replication of the lagging, but NOT the leading strand.
- 8- Alpha 1 fetoprotein is increased in down syndrome
- 9- Dietary fibers increases zinc absorption
- 10- During translation, peptidyl transferase is an RNA that has catalytic activity
- 11- 2,3 bisphosphoglycerate stabilizes deoxyhemoglobin
- 12- The double helix of the DNA is stabilized by H<sup>+</sup> bonds in addition to stacking forces between bases of the same strand
- 13- ESR is used for monitoring chronic inflammatory diseases
- 14- ABO blood groups are phospholipids
- 15- Formyl methionine is the N-terminal amino acid of human protein
- 16- Methotrexate drug inhibits the activity of dihydrofolate reductase
- 17- Gamma glutamyl transferase is one of the indicator of ...
- 18- Bilirubin does NOT freely cross the BBB because it ...
- 19- All plasma proteins synthesized by liver
- 20- Bence-Jones proteins precipitate at 100 C
- 21- The coenzyme of G6PD is glutathione
- 22- Vit C rich diet reduces the risk for certain cancers
- 23- Erythropoietic production is increased by low atmospheric ...
- 24- Biotin is a coenzyme in the carboxylation reactions

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... ولا تنسوننا من دعائكم ...

أبو عمر

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