The correct statment:
Maximal Activation of cytotoxic T-Cells involves both interactions through MHC-I & MHC-II

1) about the thalassemia major which of this is not true :
a) HbA2 increases in B thalassemia
b) HbF increase in B thalassemia
c) Hb bart's increase in a thalassemia
>>> d) in a thalassemia major 3 or 4 copies are mutated but in B thalassemia major 2 copies are mutated

2) regarding the binding of 2,3 BPG , it makes a cross linking by which subunits:
>>B1 , B2 subunits

3) The wrong statment:
>> Macrophages secretes IL-2 that stimulates T-cells

4) monocytes : phagocytic cells

5) F XIII (Fibrin Stablizer) >> the wrong about it was:
related only tho the Intrensic pathway of coagulation ((it's related to both; Intrensic & extrensic ones))

6) An amino acid substitution in one of chains of hemoglobin could lead to hemoglobinopathy (hemoglobin with abnormal function) for any of the following reasons EXCEPT:
a) An increase in the 2,3-BPG binding affinity
b) A change in the affinity of subunits contact
c) A change in the solubility properties of reduced hemoglobin
d) An increase in the hydrophilic property of hemepocket
>>> e) An increase tendency of the heme iron to exist in the reduced state.

7) Heme oxygenase:
a) Produces carbon dioxide
b) Can oxidize the membrane bridge between two pyrole rings of heme
>> c) Requires molecular oxygen
d) Produces bilirubin
e) two of the above are correct

8) Which of the following about Haemophilia-A and Von-Willibrand inheritance is NOT TRUE:
a) Von-Willibrand is a haemorrhagic disease
b) Haemophilia-A is usually confined to males
c) Haemophilia-A is inherited as a sex-linked abnormality
d) Haemophilia-A passes on from mother to child
>>> e) Von-Willibrand disease also appears in males only.

9) A 25 year old female with red cell count of 3.2 X 106/µl.Haematocrite of 37 and haemoglobin concentration of 120g/l
According to the above parameters.
Which of the following statements is TRUE?
>>> a) The RBCs are macrocytic, normochromic
b) The RBCs are normocytic, normochromic

c) The RBCs are microcytic, normochromic
d) The RBCs are microcytic, hypochromic
e) The RBCs are macrocytic, hyperchromic

10) A guy with Chest Stab came to the hospital, his lab findings with regard to his RBS's are:
>> Normocytic Normochrmic RBC's

11) Which of the following statements about iron is NOT TRUE:
a) More than 65% in haemoglobin
>>> b) The iron daily intake is usually equal to daily iron requirement
c) Women have less store of iron than man
d) Iron absorption mostly at upper part of jejunum
e) There is more iron absorption from meat and meat products than that from vegetables

12) A man of blood group A has 2 children, plasma from the blood
of one of them agglutinates his red cells while that from the does not.
All of the following are TRUE EXCEPT ONE:
a) Mother of 'agglutinating' child could be group B
b) Father must be heterozygous group A
>>> c) Children must have different mothers
d) 'agglutinating' child could be group O
e) 'Non-agglutinating' child could be group AB.

13)which is true:
>>> if an antigen cross the blood- thymus barrier it will induce tolerance to that specific antigen.

14) which of the following cells their granules contain peroxidase and histaminase:
>>> eosinophile.

15) HbF Wrong statment :
It has affinity for O2 similar to that of Myoglobin which in both more than the Hemoglobin affinity for O2
.

16) Which statment is False about spleen :-
Spleenectomy Affect Cell mediated , and Antibody mediated Immune respone .

17) about oxygen - Hb curve, which is wrong:
>>> the % saturation of Hb with oxygen is dependent on Po2 as well as Hb concentration.

18) which of the following is not required for clot formation: (1) vitamin K (2) Ca (3)... (4).... (5) fibrinogen

>>> 3 and 4

19)which of the following is true:
>>> activated IRE-BP increase levels of transferrin receptor.

20)which of the following is true about transferrin:
a- binds only 2 molecules of iron
b- for transport and storage of iron in the blood

21) a patient has hemorrahage , he loses 1.5 L of blood , when his blood is tested :
a) normochromic , normocytic anemia

22)about G6PD deficiency which is wrong:
>>>mostly result from large deletions or frameshift mutation

23) AIDS progression : CD4+ count decreases and viral load increases ..

24) an increase in 2,3 BPG and decrease in ATP indicate which of the following enzyme deficiency:
>>a- Pyruvate kinase
b- G6PD

25) in chronic myeloid leukemia the most apparent cell is the myeloblast (wrong)

26) thalassemia major is assosiated with all of the following except:
a- increase HbA2 in beta thalassemia
b- increase HbF in beta thalassemia
c- HbH in beta thalassemia
d- Hb barrt in alpha thalassemia
e- 3 0r 4 genes deficient for alpha to be major, and only 2 for beta to be major

27) a man with blood group A , has 2 children ,, one of them agglutinates his cells & the other one doesnt ,,, which statement is false :
a- the father must be heterozygous
>>>b- children must have different mothers

28) heme oxygenase :
need molecular oxygen

29) all of the following favors the transformation from the T form to the R form of hemoglobin except:
a- decrese Pka
b- NO favors binds to the oxy form

30) all the following is true about bacteremia except :
a- mostly transient
b- asymptomatic
>>>c- high fatality
d- mostly by gram -ve bacteria

31) in the second stage of iron deficiency:
>>..... serum ferritin (low), TIBC (increase)

32) which of the following is a rare cause of anemia:
>>>a- vit B 12 deficiency

b- folate deficiency
c- iron absorption defect

33) which of the following isnt a correct match
haemophilia A Von wilbrands disease
the answer is >>> aggregation is normal in both

34) a 62 year old male, presented with microcytic hypochromic anemia, which of the following is the most common cause of the condition:
>>>a- GI bleeding
b- malabsorption

35) which one of these Hemoglobins isnt normally found in our body ?
Hb H

36) which of the following is not true about fetal hemoglobin:
a- produced only in fetus.
b- carries 8 atoms of oxygen

37) which of the following statments most describe why RBC's are efficient in carrying O2 : (1) contains hemoglobin (2) no nucleus (3) biconcave shape (4) 4 oxygen molecule in each Hb inside the cell (5) have many mitochondria to produce ATP

ANSWER IS (1+2+3 +4)

38) which of the following combinations isn't true :
a- factor 3 .. tissue thromboplastin ...extrinsic pathway
b- factor 10 ... steuart factor .....both
c- factor 13 ..... fibrin stabilizing factor .... intrinsic
d- factor 12.....hageman factor .....intrinsic
answer >> c

39) commonly used techniques for infectious mononucleosis include all of the following except:
a- atypical lymphocytes.
b- heterophile antibodies
c- specific antibodies
d- detection of viral genome by molecular techniques
>> e- viral isolate in culture.

40) which of the following can't be seen in a patient of pure red cell aplasia:
>>> skin rash and Arthralgia .

41) a woman with RBC count 3.2 *10^6 /microliter
HcT= 37%
HB concentration is 120 g/l
which of the following best describes her RBC's ?
>> RBC's are macrocytic normochromic

42) regarding origin of blood infection, which of the following is most commonly to contribute:
a- streptococcus pneumonia.

<<<b- E coli.
c- staphylococcus aureus.
d- streptococcus faecalis
e- bacteroides fragilis.

43) all of the following is true about septic shock except:
a- kills about 50% of their victims.
<<< b- most common victims are adults.
c- involve the development of metabolic acidosis.
d- decrease effective blood flow.
e- decrease oxygen consumption