HAEMATOPOIETIC SYSTEM

1. An infectious complication of transfusion
    a. Is most commonly hepatitis C
    b. Is most commonly hepatitis B
    c. Is rarely transmission of HIV since screening was instituted
    d. Never includes gonorrhoea or malaria
    e. Can be clinically apparent mononucleosis in about 7 % of cases

2. Which of the following is true of chronic myeloid leukaemia
    a. Most common leukaemia
    b. Decreased WBC alkaline phosphatase level
    c. Usually occurs in patients less than 40 years old
    d. Increased WBC count with an abnormal differential
    e. Rarely associated with the Philadelphia chromosome

3. transplant rejection involves
    a. type IV hypersensitivity only
    b. type IV and III hypersensitivity only
    c. type IV, III and II hypersensitivity only
    d. type IV and II hypersensitivity only
    e. type II and III hypersensitivity only

4. iron deficiency anaemia features
    a. a normal haematocrit
    b. increased serum ferritin
    c. normal mean cell volume
    d. low platelet count
    e. none of the above

5. Platelets
    a. Have a normal concentration range of $80 – 100 \times 10^3/mm^3$
    b. Are important in haemostasis only
    c. Remain viable in stored blood for 24 hours only
    d. Normally are removed from the circulation almost entirely by the spleen
    e. Have an average lifespan of 20 days

6. With regard to blood types
    a. Group A is most common
    b. Anti A and anti B agglutinins increase into the 6^{th} decade
    c. There are 6 possible ABO genotypes
    d. Group AB persons have both anti A and anti B agglutinins
    e. Group O + is the universal recipient

7. Sickle cell anaemia
    a. Is a thalassaemia
    b. In the heterozygote does not cause sickling
    c. Is caused by reduced G6PD
    d. Causes normoblastic hyperplasia of bone marrow
    e. Gives resistance against haemophilis influenzae

8. Of the heritable hypercoagulable states
    a. ATIII deficiency results in reduced destruction of Va and VIIIa
    b. Factor V gene mutations are the most common
    c. Antiphospholipid antibody syndrome results in reduced platelet activation
    d. The Leiden mutation renders thrombin resistant to deactivation
    e. All of the above

9. The blood group of the universal recipient is
    a. AB+
    b. O+
    c. A-
    d. B+
    e. O-

10. With regards to anaemia, which is true
    a. In most anaemias there is a reduction in erythropoiesis
    b. Haemolytic anaemias are associated with decreased reticulocyte count
    c. In pernicious anaemia there is hypertrophy of gastric parietal cells
    d. With intravascular haemolysis there is a reduction in serum haptoglobins
    e. Lymphoma is not associated with cold agglutinins

11. Regarding ITP
    a. Bleeding tendency becomes clinically evident with small drops in platelet count
    b. It is commonly seen in children following bacterial infections
    c. Splenectomy is beneficial in up to 40% patients
    d. An increased number of megakaryocytes are normally seen in the bone marrow
    e. PT and APPT is increased

12. All of the following conditions are associated with polycythaemia except
    a. Leukaemia
    b. Emphysema
    c. Cyanotic heart disease
    d. Renal cell carcinoma
    e. Myeloproliferative disorders

13. With regard to anaemia
    a. There is decreased erythropoiesis in haemolytic anaemia
    b. Sickle cell anaemia is associated with some protection against malaria
    c. Neurological complications are often associated with anaemia due to folate deficiency
    d. Gene deletions are common in β thalassaemia
    e. An increase in serum haptoglobin levels is characteristically seen in all cases of intravascular haemolysis

14. regarding β thalassaemia
    a. it characteristically results from deletion in the β globin gene
    b. it may involve an asymptomatic carrier state with no demonstrable REB abnormalities
    c. it results in marked peripheral haemolysis requiring transfusion in the most severe cases
    d. it is a major cause of hydrops foetalis and foetal death
    e. it may result in iron overload and haemochromatosis

15. In anaemia
    a. Ferritin is usually elevated
    b. EPO levels are generally reduced
    c. Extramedullary haematopoiesis is important in all age groups
    d. TIBC can be increased or decreased
    e. Haemoglobinaemia does not occur

16. Platelets
    a. Release β granules and clear bodies
    b. Adherence is inhibited by TXA_2
    c. Do not need vWF to adhere
    d. Deficiency causes serious bleeding disorders
    e. Adherence initiated by ATP and TXA_2

17. haemolytic anaemia
    a. complement fixation does not occur during transfusion reaction
    b. senescent RBC distribution occurs in the vascular system
    c. serum haptoglobin is elevated in intravascular haemolysis
    d. serum bilirubin is largely conjugative in severe haemolysis
    e. malaria infection can cause haemolytic anaemia

18. which is not a cause of megaloblastic anaemia
    a. pregnancy
    b. folate/B12 deficiency
    c. EBV infection
    d. Neoplasm
    e. Hyperthyroidism

19. Features of iron deficiency
    a. Increased serum ferritin
    b. Decreased transferring saturation
    c. Decreased TIBC

20. platelets
    a. contain α and β granules
    b. are biconcave discs
    c. contain a nucleus
    d. are found in the plasma at levels of 200-500 per microlitre
    e. are the main source of thrombin

21. A man with type B blood
    a. Has the commonest blood type
    b. Cannot have a child with type O blood
    c. Cannot have a child with AB blood
    d. Cannot have a child with type A blood
    e. None of the above

22. thrombocytopenia
    a. occurs commonly with HIV
    b. causes spontaneous bleeding at levels less than 90000/mm^3
    c. occurs with hyposplenism
    d. is related to platelet survival in paroxysmal nocturnal haemoglobinuria
    e. is not associated with megaloblastic anaemia

23. myelofibrosis
    a. causes decreased megakaryocytes
    b. stimulates EPO production
    c. causes leukoerythroblastic anaemia

ANSWERS

1. A
2. B
3. C
4. E
5. C
6. C
7. D
8. C
9. A
10. D
11. D
12. A
13. B
14. E
15. D
16. D
17. E
18. C
19. B
20. D
21. E
22. A
23. C