

## PROVISIONAL ANSWER KEY

Question 41/2023/OL

Paper Code:

Category 139/2022

Code:

Exam: Assistant Professor in Transfusion Medicine (Blood Bank)

Date of Test 26-05-2023

Department Medical Education

Question1:-Purification of Albumin with cold ethanol precipitation process was first introduced in 1940 by

A:-Edwin J. Cohn

B:-Norbert Heimburger

C:-Bernard Horowitz

D:-James Blundell

Correct Answer:- Option-A

Question2:-According to the GSR 166(E) dated 11-03-2020 the deferral period for a donor suffered from Zika virus infection is

A:-28 days

B:-3 months

C:-4 months

D:-12 months

Correct Answer:- Option-C

Question3:-Shelf Life of RBC in whole Human Blood collected in the anticoagulant CPD when stored at 1-6 degree celsius is

A:-35 days

B:-21 days

C:-28 days

D:-30 days

Correct Answer:- Option-B

Question4:-Plateletpheresis donor can be accepted for double unit apheresis platelets, if the body weight is more than 60 kg and those who are not first-time apheresis donors, having a platelet count of at least

A:-1.5 lakhs/ $\mu$ l

B:-2.5 lakhs/ $\mu$ l

C:-2 lakhs/ $\mu$ l

D:-4.5 lakhs/ $\mu$ l

Correct Answer:- Option-B

Question5:-Alpha Granules of platelet contains

A:-Calcium

B:-Phosphate

C:-PDGF

D:-Serotonin

Correct Answer:- Option-C

Question6:-Shift to right of the Hemoglobin-Oxygen dissociation curve occurs when there is

A:-Decrease in pH

B:-Decrease in temperature

C:-Decreased 2,3 - DPG

D:-Decrease in  $P_{50}$

Correct Answer:- Option-A

Question7:-Storage lesions of RBC include all *except*

A:-Decreased 2,3 - DPG

B:-Decreased ATP

C:-Decreased plasma hemoglobin

D:-Decreased glucose

Correct Answer:- Option-C

Question8:-Thawed cryoprecipitate AHF is kept at temperature of

A:-1-6°C

B:-18°C

C:-20-24°C

D:-37°C

Correct Answer:- Option-C

Question9:-Leubering Rapaport Shunt pathway is important to RBC function as it permits accumulation of

A:-ATP

B:-2,3 DPG

C:-Both of the above

D:-None of the above

Correct Answer:- Option-B

Question10:-DNA fingerprinting is used in

A:-Identity testing

B:-Paternity testing

C:-Monitoring chimerism after marrow transplant

D:-All of the above

Correct Answer:- Option-D

Question11:-Human Urea Transporter is linked to a Blood Group system

A:-Duffy

B:-Kidd

C:-Kell

D:-Lewis

Correct Answer:- Option-B

Question12:-Advantages of pre storage leucoreduction : it reduces the chance of all *except*

A:-FNHTR

B:-CMV Transmission

C:-Alloimmunisation

D:-TA-GVHD

Correct Answer:- Option-D

Question13:-Autosomal Dominant Macrothrombocytopenia syndrome associated with MYH19 gene mutation is

A:-May-Hegglin Anomaly

B:-Wiskott Aldrich Syndrome

C:-Jacobsen Syndrome

D:-Bernard Soulier Syndrome

Correct Answer:- Option-A

Question14:-Culture system which detects bacteria by detecting a change in the  $CO_2$  levels associated with bacterial growth, during continuous monitoring of platelet sample containing bottles

A:-eBDS

B:-BacT/ALERT

C:-Pan Genera Detection (PGD) test

D:-All the above

Correct Answer:- Option-B

Question15:-Fc Portion of IgG immunoglobulin is involved in

A:-Neutralisation of toxins

B:-Cytokine regulation

C:-Neutralisation of viral adhesion

D:-Agglutination of antigens

Correct Answer:- Option-B

Question16:-The required storage temperature for frozen RBC using 20% weight per

volume, low glycerol method is

A:-At or below -120 degree celcius

B:-1-6 degree celcius

C:-Zero degree celcius

D:-At -20 degree celcius

Correct Answer:- Option-A

Question17:-Features of Natural Killer Cells are

A:-They have surface Ig

B:-TCR is the Antigen Receptor

C:-Have CD56 and CD16 as markers

D:-Thymus dependent

Correct Answer:- Option-C

Question18:-Viral inactivation method where only enveloped viruses are destroyed by disrupting lipid membrane

A:-Vapor heat method

B:-Solvent/detergent treatment

C:-UV irradiation

D:-Pasteurization

Correct Answer:- Option-B

Question19:-Transgenic goat's milk is used in the production of

A:-Factor VIII

B:-Factor IX

C:-Prothrombin

D:-Antithrombin III

Correct Answer:- Option-D

Question20:-What is true about Bone Marrow Transplantation ?

A:-G-CSF to be given to the donor for at least 2-4 days prior to aspiration

B:-The maximum volume collected from the donor should not be more than 15-20 ml/kg body weight of the donor

C:-Both 1 and 2

D:-None of the above

Correct Answer:- Option-C

Question21:-Hemoglobin resulting from a mutation where lysine is substituted for glutamate in the sixth position of the  $\beta$ -globin chain

A:-Hemoglobin A

B:-Hemoglobin F

C:-Hemoglobin C

D:-Hemoglobin S

Correct Answer:- Option-C

Question22:-Shipment of frozen HSC product is made in a secondary container to prevent leakage and contamination. The temperature is continuously monitored and maintained at or below

A:-minus 80°C

B:-zero °C

C:-10°C

D:-minus 150°C

Correct Answer:- Option-D

Question23:-Fever of a non-infectious origin, which develops when white cell count increases HSC post transplant. Classical features include fever >38.3° C, skin rash, non cardiogenic pulmonary edema or hypoxia, or a sudden increase in CRP values >20mg/dL. This is known as

A:-FNHTR

B:-Job's syndrome

C:-Engraftment syndrome

D:-Lazy leucocyte syndrome

Correct Answer:- Option-C

Question24:-Which of the following is FDA approved CAR-T cells ?

A:-Tisagenlecleucel (Kymriah)

B:-Humate P

C:-Both

D:-None of the above

Correct Answer:- Option-A

Question25:-X linked recessive pattern of inheritance is seen in

A:- $X_g^a$  Blood group system

B:-Hemophilia A

C:-XK gene

D:-Both 2 and 3

Correct Answer:- Option-D

Question26:-1-4 Butane Diol Wax

A:-is a leaching agent

B:-is a cryoprotectant

C:-is used to bring down the temperature of collected blood to 20°C

D:-is a rejuvenating agent

Correct Answer:- Option-C

Question27:-Minimum haematocrit of PRBC in SAGM should be

A:-65-70%

B:-60-70%

C:-50-60%

D:-65-75%

Correct Answer:- Option-C

Question28:-Red cells washed in a closed system have an expiry time of

A:-24 hours

B:-14 days

C:-6 hours

D:-none of the above

Correct Answer:- Option-B

Question29:-Most commonly used cryopreservation method by Glycerol is

A:-Low concentration glycerol with rapid freezing

B:-Low concentration glycerol with slow freezing

C:-High concentration glycerol with slow freezing

D:-High concentration glycerol with rapid freezing

Correct Answer:- Option-C

Question30:-Method of pathogen inactivation that does not affect coagulation and anti thrombotic factors

A:-Methylene blue

B:-Psoralen UV-A

C:-Riboflavin

D:-Solvent detergent

Correct Answer:- Option-B

Question31:-In the risk stratification for emerging viral infections, chikungunya is classified under

A:-Red

B:-Orange

C:-Yellow

D:-White

Correct Answer:- Option-B

Question32:-The titre of which antibody is known to wean off in the serum of as immunised person

A:-Anti kidd

B:-Anti Kell

C:-Anti c

D:-Anti S

Correct Answer:- Option-A

Question33:-Pick out the false statement :

A:-Lw antigen is a low frequency antigen

B:-Duffy blood group antibodies are capable of producing severe extravascular haemolytic reactions

C:-Next to ABO and Rh blood groups, Kell antigen is the most immunogenic

D:-Kell antigen is destroyed by DTT

Correct Answer:- Option-A

Question34:-Severity of anaemia in HDFN caused by which blood group, antibodies is much more pronounced than other blood group antibodies

A:-Anti Kidd

B:-Anti D

C:-Anti Kell

D:-Anti Duffy

Correct Answer:- Option-C

Question35:-Definition of massive transfusion and its indications are all except

A:-Transfusion of three or more blood units in one hour

B:-Transfusion of 10 or more blood units in 24 hours

C:-Replacement of 50% of blood volume in 3-4 hours

D:-Blood loss at the rate 150 ml per hour or more

Correct Answer:- Option-A

Question36:-Pick out the false statement :

A:-Leucapheresis quickly decreases the burden of circulating WBC

B:-Leucapheresis prolongs the S and G2/M phase of leukemia

C:-Clinical signs and symptoms of leucocytosis develop in more than 10% of ALL patients

D:-Leucapheresis improves response of proliferating cells to chemotherapy

Correct Answer:- Option-C

Question37:-All immunoadsorption columns can be used in a patient on ACE 1 inhibitor (Angiotensin Converting Enzyme) except

A:-Cholesterol

B:-Sheep antihuman immunoglobulin

C:-Phenylalanine

D:-Tryptophan

Correct Answer:- Option-D

Question38:-Pick out the wrong statement regarding West Nile Virus :

A:-Usually patients over 50 suffer from severe disease

B:-A common cause of death in the elderly is encephalitis

C:-Around 38% of infected individuals die succumb to disease

D:-One out of 150 patients suffer from severe CNS disease

Correct Answer:- Option-C

Question39:-Vertical transmission is most frequent in

A:-HIV

B:-HBV

C:-CMV

D:-EBV

Correct Answer:- Option-C

Question40:-The most common immune cause of platelet refractoriness is

A:-Anticomplement antibodies

B:-Antibodies to class II HLA antigens

C:-Cytokines

D:-Antibodies to class I HLA antigens

Correct Answer:- Option-D

Question41:-Investigation that can aid in the diagnosis of Transfusion Associated Circulatory Overload (TACO)

A:-Brain natriuretic peptide

B:-Measurement of total blood volume

C:-Doppler ultrasound

D:-All of the above

Correct Answer:- Option-A

Question42:-Protein A capture antibodies by binding to

A:-Fab portion of immunoglobulin

B:-Surface of test cells

C:-Surface of indicator cells

D:-Fc portion of immunoglobulin

Correct Answer:- Option-D

Question43:-The component of choice for low birthweight infant with Hb 7g/dl, Mother is anti CMV negative

A:-Irradiated leucoreduced RBC

B:-RBCs from a donor who is anti CMV negative

C:-Solvent detergent treated plasma

D:-None of the above



Correct Answer:- Option-B

Question44:-Which clotting factor deficiency is treated by Prothrombin Complex Concentrates ?

A:-Factor VIII deficiency

B:-Factor IX deficiency

C:-Factor XII deficiency

D:-Factor XI deficiency

Correct Answer:- Option-B

Question45:-All are agents for immunoadsorption except

A:-Charcol

B:-Cellulose

C:-Polymyxin B

D:-Polyethylene glycol

Correct Answer:- Option-D

Question46:-Elutriation refers to

A:-Removal of attached antibodies

B:-Leaching out of chemical from blood bag

C:-Method of separation of cell populations based on two physical characteristics

D:-Method of stem cell propagation

Correct Answer:- Option-C

Question47:-Addition of which agent helps in reducing the percentage of DMSO during cryopreservation ?

A:-40% glycerol

B:-Hydroxyl ethyl starch

C:-20% glycerol

D:-5% albumin

Correct Answer:- Option-B

Question48:-Gilcher's rule of 5 is used in

A:-Calculation of body surface area

B:-Calculation of extracorporeal volume

C:-Calculation of plasma volume

D:-Calculation of total blood volume

Correct Answer:- Option-D

Question49:-Hyperleucocytosis is referred to as circulating white cells or leukemic blast cells

A:-More than  $100 \times 10^9$  /L

B:-More than  $100 \times 10^8$  /L

C:-More than  $100 \times 10^{10}$  /L

D:-More than  $100 \times 10^{11}$  /L

Correct Answer:- Option-A

Question50:-The agent given to an apheresis donor to increase the number of circulating granulocytes

A:-Immunoglobulin

B:-Cyclophosphamide

C:-G-CSF

D:-DDAVP

Correct Answer:- Option-C

Question51:-Side effects of hemoglobin-based blood substitutes include all except

A:-Increased systemic pressure

B:-Rapid elimination

C:-Renal toxicity

D:-Thrombocytopenia

Correct Answer:- Option-D

Question52:-Oxygen dissociation curve of perfluorocarbons with  $PO_2$  is

A:-Linear

B:-Sigmoid shaped

C:-Curved

D:-Log linear

Correct Answer:- Option-A

Question53:-Which of the following is a feature of stem cells collected from peripheral blood ?

A:-Low CD 4 cell count compared to bone marrow stem cells

B:-Hematopoietic recovery is faster compared to bone marrow stem cells

C:-Low T cell count compared to bone marrow stem cells

D:-Less graft versus tumour effect compared to bone marrow stem cells

Correct Answer:- Option-B

Question54:-Which is not a cause of immune thrombocytopenia ?

A:-Collagen vascular disorder

B:-Neonatal thrombocytopenia

C:-Microangiopathic hemolytic anaemia

D:-Post transfusion purpura

Correct Answer:- Option-C

Question55:-Which of the following can be seen in sickle cell anaemia ?

A:-Acute chest syndrome

B:-Hepatomegaly

C:-Both 1 and 2

D:-None of the above

Correct Answer:- Option-C

Question56:-Which of the following is not correct ?

A:-Hemoglobin F level can be increased in beta thalassemia

B:-Hemoglobin A2 level can be increased in alpha thalassemia

C:-Hemoglobin H can be increased in alpha thalassemia

D:-Hemoglobin barts can be increased in alpha thalassemia

Correct Answer:- Option-B

Question57:-Hemophilia B is caused by deficiency of

A:-Factor 8

B:-Factor 9

C:-Factor 7

D:-Factor 10

Correct Answer:- Option-B

Question58:-Which of the following statement is correct ?

A:-Hemophilia B is a X linked dominant disorder

B:-TYPE 1 von Willebrand disease is a mild disease

C:-TYPE 1 von Willebrand disease is an autosomal recessive disorder

D:-von Willebrand factor is synthesised by hepatocytes

Correct Answer:- Option-B

Question59:-Bone marrow failure syndrome commonly associated with symptoms of skin pigmentation, nail dystrophy and leucoplakia is

A:-Dyskeratosis congenita

B:-Fanconi's anaemia

C:-Schwachman diamond syndrome

D:-Congenital amegakaryocytic thrombocytopenia

Correct Answer:- Option-A

Question60:-Which of the following is not correct in umbilical cord stem cell collection ?

A:-Can be collected from placenta in utero

B:-Collected from umbilical vein

C:-About 300 ml blood is collected

D:-A minimum count of  $3 \times 10^7$ /kg nucleated cell count is needed for engraftment

Correct Answer:- Option-C

Question61:-Which of these conditions commonly results in increased crystallisation of hemoglobin in RBC ?

A:-Hemoglobin E

B:-Beta thalassemia

C:-Alpha thalassemia

D:-Hemoglobin C

Correct Answer:- Option-D

Question62:-Which of the complications of sickle cell anaemia is an accepted indication for transfusion ?

A:-Priapism

B:-Leg ulcer

C:-Acute hepatic sequestration

D:-Non surgical avascular necrosis

Correct Answer:- Option-C

Question63:-Prothrombin complex concentrate does not contain

A:-Factor II

B:-Factor IX

C:-Factor X

D:-Factor XII

Correct Answer:- Option-D

Question64:-Novoseven (factor VIIa) can be used in the treatment of

A:-Acquired hemophilia

B:-Congenital factor VII deficiency

C:-Glanzmanns thrombasthenia

D:-All of the above

Correct Answer:- Option-D

Question65:-Donor in stem cell transplantation is O positive. Recipient is AB positive. Which blood group packed RBC/Plasma should recipient receive in the post-transplant period ?

A:-O group PRBC, AB group plasma

B:-A group PRBC, AB group plasma

C:-AB group PRBC, O group plasma

D:-B group PRBC, AB group plasma

Correct Answer:- Option-A

Question66:-Which of the following agent is used as alternative to platelet

transfusion and in platelet dysfunction ?

A:-Factor VIII

B:-Desmopressin

C:-Prothrombin complex concentrate

D:-Fibrinogen

Correct Answer:- Option-B

Question67:-Hepcidin level is usually increased in

A:-Iron deficiency anaemia

B:-Anaemia of chronic disease

C:-Thalassemia

D:-Both 2 and 3

Correct Answer:- Option-B

Question68:-Which of the following statements are correct ?

- i. Irradiation decreases storage life of platelets.
- ii. Irradiation damages DNA of T cells.
- iii. Cryoprecipitate does not need irradiation.
- iv. Platelets processed with pathogen reduction techniques need no irradiation.

A:-i, ii, iii are correct iv is wrong

B:-ii, iii, iv are correct i is wrong

C:-ii and iii are correct i and iv are wrong

D:-All are correct

Correct Answer:- Option-B

Question69:-Which of the following is not correct ?

A:-Thrombopoetin is produced by megakaryocytes

B:-G CSF is produced by Macrophages Endothelial cells

C:-Erythropoetin is produced by kidney

D:-GM CSF is produced by Macrophages

Correct Answer:- Option-A

Question70:-Which of the following is characteristics of paroxysmal cold hemoglobinurea ?

A:-IgM type of antibody

B:-RBC distruction at lower temperature

C:-Antibody specificity against P antigen

D:-Both 1 and 2

Correct Answer:- Option-C

Question71:-Which of the following statement about cryopreservation of stem cells is wrong ?

A:-Reducing the amount of DMSO during cryopreservation reduces adverse

effects during stem cell infusion

B:-Cryopreservation of hematopoietic stem cell is generally done using rapid freezing

C:-Delay in cryopreservation affect stem cell viability

D:-Stem cell viability decreases after freeze thaw cycling

Correct Answer:- Option-B

Question72:-Minimum nucleated cell count needed for efficient stem cell engraftment

A:- $5 \times 10^6$  cells/kg recipient body weight

B:-2 to  $3 \times 10^8$  cells/kg recipient body weight

C:- $0.5 \times 10^8$  cells/kg recipient body weight

D:-2 to  $3 \times 10^6$  cells/kg recipient body weight

Correct Answer:- Option-B

Question73:-Statement 1 - Patient blood management advocates normothermia during surgery.

Statement 2 - Hypothermia increases bleeding by affecting platelet function.

A:-Statement 1 is correct, statement 2 is correct explanation for 1

B:-Statement 1 is correct, statement 2 is wrong explanation for 1

C:-Statement 1 is wrong, statement 2 is correct

D:-Statement 1 is wrong, statement 2 is wrong

Correct Answer:- Option-A

Question74:-Normocytic normochromic anaemia with high reticulocyte count is seen in

A:-Aplastic anaemia

B:-Myelodysplastic syndrome

C:-Acute blood loss

D:-Anaemia of chronic disease

Correct Answer:- Option-C

Question75:-Which of the following is not a side effect of iron chelators ?

A:-Retinal disturbances

B:-Hearing loss

C:-Pancreatic dysfunction

D:-Arthropathy

Correct Answer:- Option-C

Question76:-Equipment calibration is an essential component of current good manufacturing practices in order to obtain accurate results. Which of the following is correct for the optimal centrifugation time for a manual tube method when calibration of a serologic laboratory centrifuge is performed ?

A:-The shortest time when the cell button is easily suspended and the supernatant is clear

B:-The shortest time when the cell button is not easily suspended and supernatant is fizzy

C:-The longest time when the cell button is easily suspended and supernatant is clear

D:-The longest time when the cell button is not easily suspended and the supernatant is fizzy

Correct Answer:- Option-A

Question77:-Which of the following biological safety cabinet provides personal, environment and product protection ?

A:-Class I B

B:-Class I A

C:-Class II A

D:-Class IV B

Correct Answer:- Option-C

Question78:-Which of the following is the highest level document in the documentation pyramid of a quality management system of a blood centre ?

A:-Standard operating procedure

B:-Quality policy

C:-Quality manual

D:-Job description

Correct Answer:- Option-C

Question79:-What is the mandatory requirement for storage of various records and registers of blood centre as per the Drugs and Cosmetics Rules 1945 ?

A:-2 years

B:-5 years

C:-7 years

D:-10 years

Correct Answer:- Option-B

Question80:-Which of the following is NOT a role of the hospital transfusion committee ?

A:-Appropriate clinical use of blood components

B:-Review of transfusion triggers

C:-Frame specifications for purchase of equipment

D:-Proper reporting of adverse events related to transfusion

Correct Answer:- Option-C

Question81:-Which of the following ethical principles emphasizes the concept of 'Do no Harm' ?

A:-Justice

B:-Beneficence

C:-Autonomy

D:-Non Malificence

Correct Answer:- Option-D

Question82:-Jehovah's witness refuse blood transfusions due to religious reasons. Which of the following ethical principles best describes this ?

A:-Justice

B:-Autonomy

C:-Beneficence

D:-Non Malificence

Correct Answer:- Option-B

Question83:-Which of the following techniques is not an automation technique in the immunohematology laboratory ?

A:-Solid phase technology

B:-Electronic cross matching

C:-Erythrocyte magnetized technology

D:-Column agglutination technology

Correct Answer:- Option-B

Question84:-A protein is poorly expressed in a diseased tissue. Which of the following techniques will determine whether the defect is at the level of transcription or translation ?

A:-Southern and western blot

B:-Southern and northern blot

C:-Northern and western blot

D:-Western and south western blot

Correct Answer:- Option-D

Question85:-What is the correct statement for polymerase chain reaction ?

A:-It is used to transcribe specific genes

B:-It is a method for sequencing of full genome

C:-It amplifies specific DNA sequences

D:-It is based on transcription mediated amplification

Correct Answer:- Option-C

Question86:-When there is a warning of 'Current blood group of the patient not matching with previous ABO-Rh results' of a donor in the blood centre information system software, it is an example of which control function ?

A:-Process control

B:-Calibration



C:-Document control

D:-Decision support

Correct Answer:- Option-D

Question87:-Preventing the tissue of an incompatible blood unit by using information system software best describes which of the following ?

A:-Control function

B:-Inventory management

C:-System security

D:-Validation

Correct Answer:- Option-A

Question88:-As per the Drugs and Cosmetics (Second Amendment) Rules 2020, what is the recommended deferral period for a blood donor who has undergone a minor surgery ?

A:-One month

B:-Three months

C:-Six months

D:-Twelve months

Correct Answer:- Option-C

Question89:-You are the incharge of a blood component separation unit and your licence is going to expire on 31-12-2023. When and on which form should you supply for renewal of blood centre licence ?

A:-Form 28 C; three month before expiry of licence

B:-Form 28 C; six months before expiry of licence

C:-Form 27 C; three months before expiry of licence

D:-Form 27 C; six months before expiry of licence

Correct Answer:- Option-D

Question90:-A new process is to be implemented in the transfusion laboratory. What would you ensure so that the process consistently produces the desired results ?

A:-Quality control

B:-Process validation

C:-Quality indicator

D:-Supplier qualification

Correct Answer:- Option-B

Question91:-According to latest biomedical waste management guidenlines, all broken or contaminated glassware is disposed off in which colour coded container ?

A:-Red

B:-Green

C:-Yellow

D:-Blue

Correct Answer:- Option-D

Question92:-A laboratory wishes to implement a new automated analyser. The instrument is expected to run 100 specimens per hour with turnaround time 10 minutes per specimen and a failure rate of less than 1%. The process that demonstrates this instrument meets customer specifications is called

A:-Calibration

B:-Validation

C:-Performance qualification

D:-Quality control

Correct Answer:- Option-C

Question93:-All of the following statements are true about forms except

A:-Anyone can design a form

B:-Blank forms provide template for capture of information

C:-A form becomes a record once completed providing objective evidence of work performed

D:-Forms should be managed within document control

Correct Answer:- Option-A

Question94:-Hold over time for blood storage refrigerator is defined as

A:-A half load of blood units at 4°C takes at least half hour to rise above +6°C

B:-A full load of blood units at 4°C takes at least half hour to rise above +6°C

C:-A half load of blood units at 4°C takes at least one hour to rise above +6°C

D:-A full load of blood units at 4°C takes at least 2hours to rise above +6°C

Correct Answer:- Option-B

Question95:-Which of the following proteomics approach used for in-depth characterization of protein structure utilizes small sequences of peptides obtained from proteolytic digestion for reconstruction and analysis of primary structure of proteins ?

A:-Top-top proteomics

B:-Bottom-bottom proteomics

C:-Top-down proteomics

D:-Bottom-up proteomics

Correct Answer:- Option-D

Question96:-Which of the following is a disadvantage of solid phase red cell adherence assay for use in immunohematology tests ?

A:-Low sensitivity for autoantibodies

B:-High sensitivity for weak autoantibodies

C:-Hemolysed or icteric samples cannot be tested

D:-Results are subjective in nature

Correct Answer:- Option-B

Question97:-Which of the following non-conformances best describes 'Difference or inconsistency in the outcomes of a process, procedure or test results' in a blood centre laboratory ?

A:-Discrepancy

B:-Adverse reaction

C:-Error

D:-Accident

Correct Answer:- Option-A

Question98:-Which of the following is a molecular method used in Human Leukocyte Antigen (HLA) testing, in which the individual's deoxyribonucleic acid (DNA) is immobilized on a membrane and incubated with a labeled complementary DNA designed to detect specific HLA sequence ?

A:-Sanger based sequencing

B:-Western blotting

C:-Sequence specific oligonucleotide probe hybridization

D:-Southern blotting

Correct Answer:- Option-C

Question99:-Which of the following statements is incorrect statement for blood centre information system software ?

A:-User codes and passwords prevent unauthorized use of the system

B:-Control functions assist in making decisions at critical points in the selection of donors

C:-Data can be edited once entered

D:-There is no requirement of standard operating procedure

Correct Answer:- Option-D

Question100:-What is the required minimum hemoglobin content of Red cells, leucocyte depleted using filtration as per European blood component quality control standards ?

A:-40 gram per deciliter

B:-40 gram per unit

C:-45 gram per deciliter

D:-45 gram per unit

Correct Answer:- Option-B