Target MLT

Class-4

TOP

MLT MCQS

- RRB - LA / LS
- AIIMS - JLT/SLT
- PGIMER Chandigarh
- MHSRB Telangana

Target MLT

External Quality Assessment is needed for-

A) Monitoring the performance of a single laboratory
B) Daily monitoring of accuracy
C) Daily monitoring of precision
D) Comparing the performance of different laboratories

Target MLT

Feature	Internal Quality Control (IQC)	External Quality Assessment (EQA)
Frequency	Daily or routinely conducted within the lab	Periodic (e.g., monthly, quarterly, annually)
Objective	Ensure accuracy and precision of tests within the lab	Compare performance with other labs and ensure compliance with standards
Scope	Focuses on the individual lab's procedures and instruments	Assesses overall performance compared to external labs
Control	Lab has direct control over the process	Lab has no control over the external samples or results
Results Interpretation	Based on known control samples	Based on results from multiple laboratories

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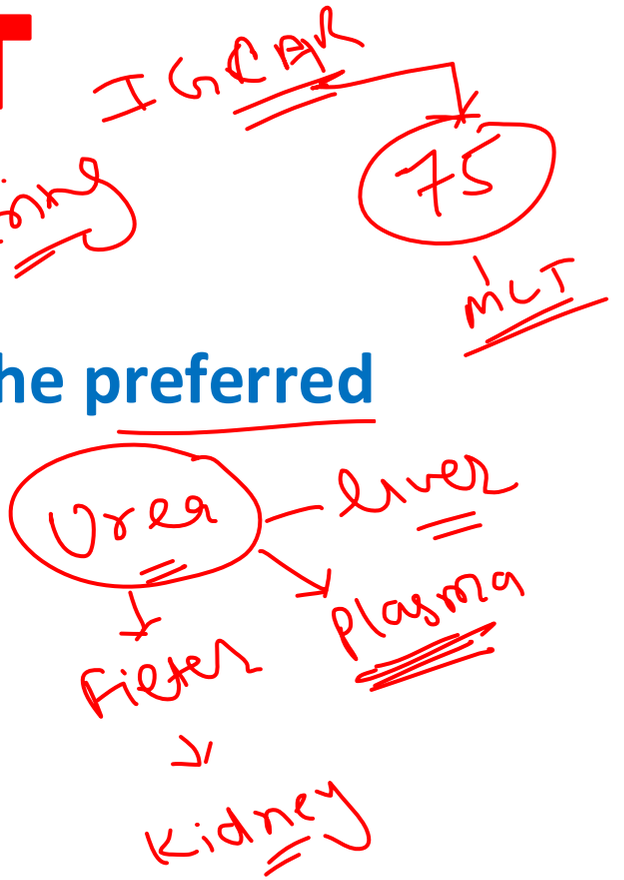
For estimating urea and bicarbonate, the preferred specimen of choice is-

A) White blood corpuscles (WBC)
B) Whole blood
C) Plasma
D) Red blood corpuscles (RBC)



Target MLT

Plasma glucose values in clinical laboratory are commonly reported using which of the following units?

A) IU/L
B) mg/dl
C) g/l
D) mg/L

Fasting ⇒ Normal ⇒ 110 mg/dL

P.P. (2H) ⇒ 140 mg/dL

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Table 36.3 Diagnostic criteria for oral glucose tolerance test (WHO 1999)

Condition	Plasma glucose concentration as mmol/l (mg/dl)		
	Normal	Impaired glucose tolerance	Diabetes
Fasting	<6.1 (<110)	<7.0 (<126)	>7.0 (>126)
2 hours after glucose	<7.8 (<140)	<11.1 (<200)	>11.1 (>200)

Symptoms of

110-126

140-200

Q ⇒ Hypoglycemia can be seen when ⇒ ??

A - 75mg/dL

B - 110mg/dL

C ~~45mg/dL~~

D 90mg/dL

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Imp.

Ketone bodies sin urine are identified by-

A) Heat coagulation test ⇒ Protein
B) Benzidine test ⇒ Blood
C) Rothera'a test → Ketone Bodies
D) Fouchet's test ⇒ Bile Pigment

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The normal range of total bilirubin level in the serum is-

0.2-1
0.2-0.4
0.2-2.0

A) 2 to 4 mg/dl

B) The total bilirubin concentration in serum is

C) 0.2-1 mg/dl (conjugated ~ 0.6 mg/dl; unconjugated

D) ~ 0.4 mg/dl). Elevation in serum bilirubin concentration is observed in jaundice. Unconjugated bilirubin is increased in hemolytic jaundice, conjugated bilirubin in obstructive jaundice, while both of them are increased in hepatic jaundice.

Target MLT

Q Icteric Sample ⇒ ??
→ S. Bilirubin ↑↑↑↑
IMP.
5-7

Q.

The total bilirubin concentration in serum is 0.2-1 mg/dl (conjugated ~ 0.6 mg/dl; unconjugated ~ 0.4 mg/dl). Elevation in serum bilirubin concentration is observed in jaundice. Unconjugated bilirubin is increased in hemolytic jaundice, conjugated bilirubin in obstructive jaundice, while both of them are increased in hepatic jaundice.

Liver

1 mg/dl
1. Conjugated ⇒ ≃ 0.6 mg/dl
2. Unconjugated ⇒ ≃ 0.4 mg/dl

Vanbergh Rxn ⇒ S. Bilirubin

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Aerobic → Pyruvate
Anaerobic → lactate

??

Why is fluoride added for blood glucose estimation?

A) It stimulates glycolysis
B) It stimulates clotting
C) It inhibits glycolysis
D) It prevents clotting

Enolase enzyme
↓
Inhibitor
is
Fluoride

Glucose → Pyruvic

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Which of the following test is preferred by the blood bank to prevent disease transmission?

A) ABO typing → Blood grouping
B) HB → HB ?? Anemia HB↓ Polycythemia HB↑
C) HBsAg ↔ Surface Ag of HBV / Australia Ag
D) HCT = Hematocrit → PCV → Packed cell Volume.

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Temperature used for storing blood in a blood bank refrigerator is-

A) 4-6 °C
B) 8-10 °C
C) 10 12 °C
D) 0-1°C

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Comparative chart of storage and expiry of blood components

Component	Storage	Temperature	Expiry
Whole Blood Red Blood Cells	Blood Bank Refrigerator	2-6°C ± 1°C	35 days for CPDA Bags 42 days for CPD SAGM
Fresh Frozen Plasma Cryoprecipitate	Freezer	-30°C or below	12 months
Platelet concentrate	Platelet agitator	22 ± 2°C	5 days
Cryo poor plasma	Freezer	-30°C or below	5 year ; usually sent for plasma fractionation

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Fresh frozen plasma can be utilize till-

A) 35 days
B) 6 hrs
C) 12 hrs
D) 1 year

FFP can be stored for 1 year if temperature is maintained below -25° C. When required for transfusion, FFP is thawed between 30-37° C and then stored in the refrigerator at 2-6° C. Since labile coagulation factors rapidly deteriorate, FFP should be transfused within 2 hours of thawing.

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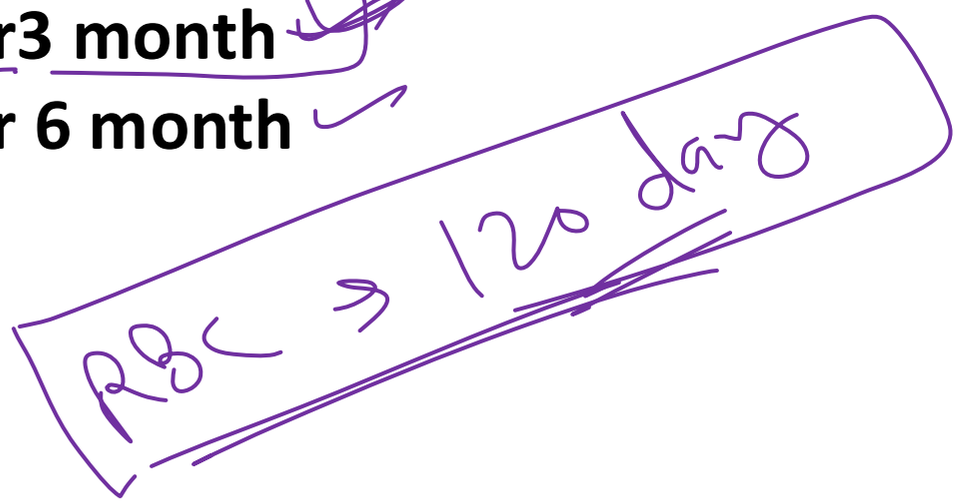
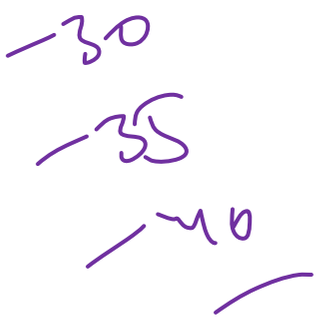
How often blood can be donated?

A) After 24 hour
B) After 3 hour
C) After3 month
D) After 6 month





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Q) What is anticoagulant?

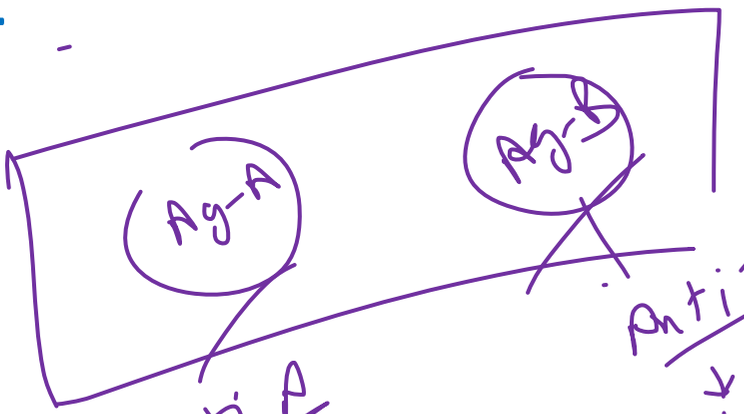
A) Liquid which stop bleeding
B) Chemical which prevent bleeding
C) Salt that allow blood to clot
D) None of the above

Target MLT

ABO Typing

Agglutination with both Anti-A and Anti-B typing indicates the blood group is-

A) AB
B) A
C) B
D) O



Anti-D - ??

Anti A → Agglutination present

Anti-B → Agglutination +

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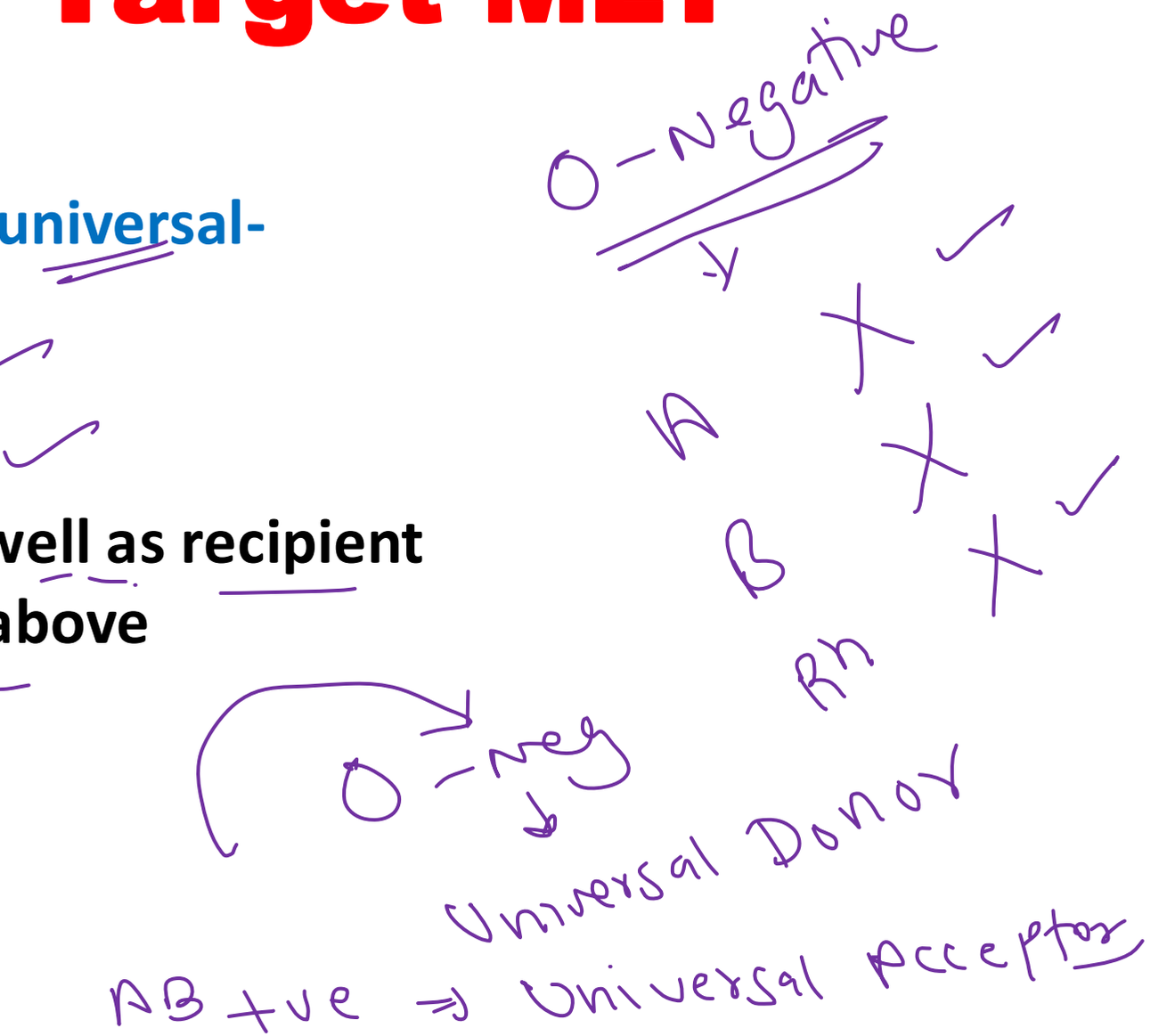
O Negative is universal-

A) Donor
B) Recipient
C) Donor as well as recipient
D) All of the above



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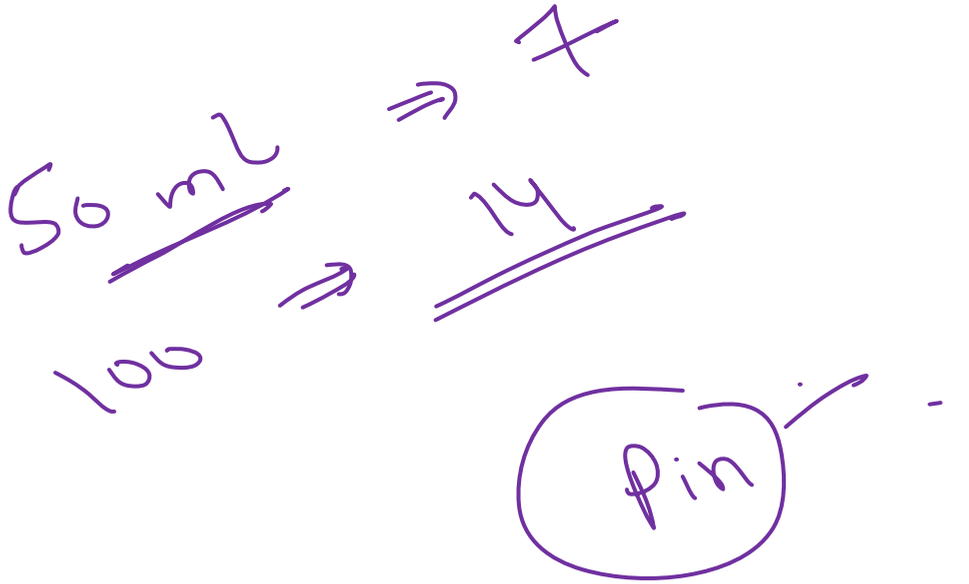
Volume of ACD solution used to collect 100ml of blood is-

A) 16 ml
B) 30ml
C) 28ml
D) 5ml



Target MLT

Under which circumstances will an antigen – antibody reaction occur?

A) A person with type AB blood is given type O blood
B) A person with type AB blood is given type B blood
C) A person with type O blood is given type A blood
D) A person with type A blood is given type O blood

O Blood gp ⇒ A X
B X

Antibody ⇒ A/B