



ARJUNA NEET BATCH



BODY FLUIDS AND ITS CIRCULATION-LECTURE -08



Objective of today's class



DISORDERS OF CIRCULATORY SYSTEM AND PYQ's



DISORDERS



① Hypertension: High B.P ✓

→ 140 mmHg
90

* Vital organs can be affected:

✓ KIDNEY ?
✓ BRAIN

Hypotension
Low B.P

Blood pressure = $\frac{\text{Systolic Pres}}{\text{Diastolic Pres.}}$
(B.P.)

Sphygmomanometer

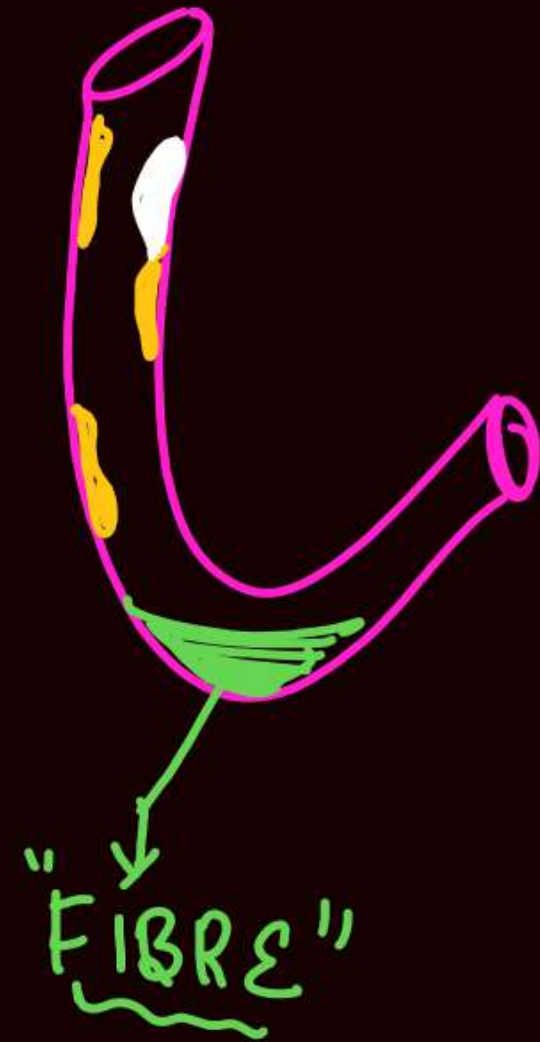
B.P = $\frac{120}{80}$ mmHg

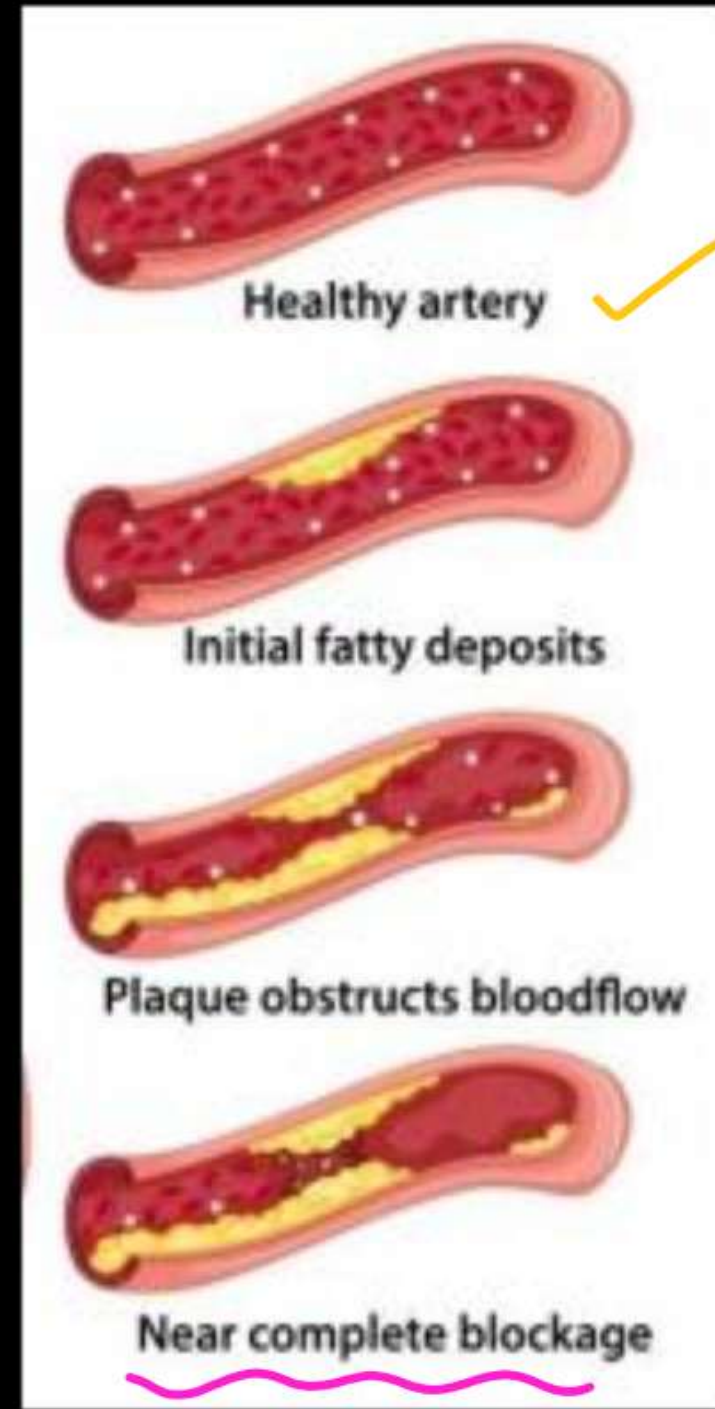
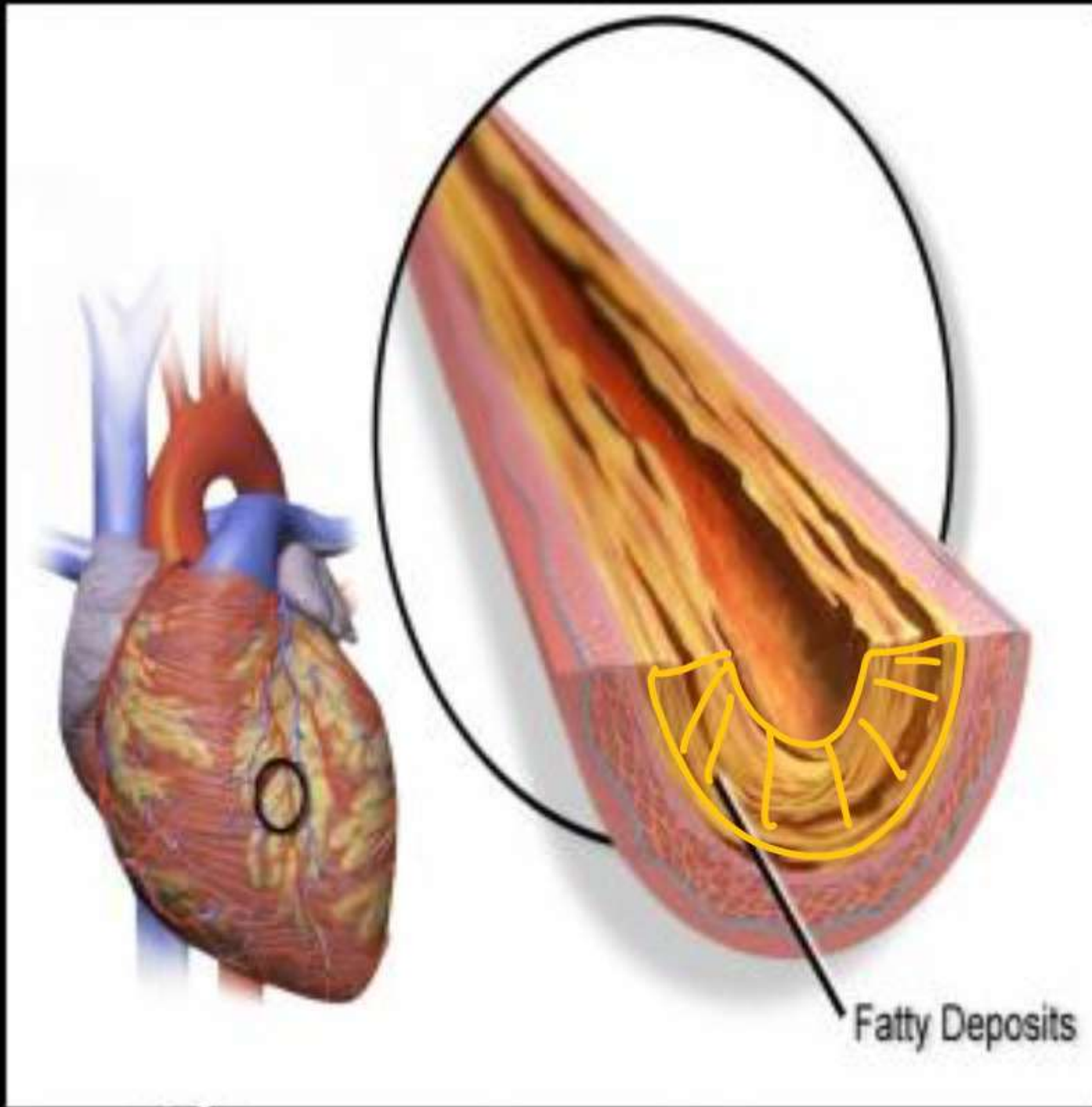


② CAD (Coronary Artery Disease)

→ ATHEROSCLEROSIS

If there is a deposition of CHOLESTEROL, FATS, CALCIUM, FIBRES etc is seen in the blood vessels supplying to heart, making small, pressure high, in fact in severe cases Blockage is called 'Atherosclerosis'.





③ Angina Pectoris: (Acute Chest pain)

→ Due to insufficient O_2 reaching the heart muscles.

Myocardial ischemia

↳ Chest pain

→ is more commonly seen in MIDDLE | ELDERLY aged people.

④ Heart attack (Myocardial infarction)
↳ Heart is not receiving enough blood hence the death of Cardiac Muscles is seen overtime.

⑤ Heart failure: Heart is unable to pump sufficient blood to the body to meet the demands.

⑥ Cardiac arrest: Complete stoppage of Heart Beat.



Which of the following conditions cause erythroblastosis foetalis?

- (1) Mother Rh^{+ve} and foetus Rh^{-ve}
- (2) Mother Rh^{-ve} and foetus Rh^{+ve}
- (3) Both mother and foetus Rh^{-ve}
- (4) Both mother and foetus Rh^{+ve}



Question- Match the following columns and select the correct option.

NEET2020



Column 1	Column 2
A) Eosinophils	1) immune response
B) basophils	2) phagocytosis
C) Neutrophils	3) Release histaminase, destructive enzymes
D) lymphocytes	4) Release granules containing histamine

A B C D
✓ A- 3), 4), 2), 1) ✓
B- 4), 1), 2), 3)
C- 1), 2), 4), 3)
D- 2), 1), 3), 1) ✓

Eosinophils
↳ ALLERGY ↑↑↑

Basophils
↳ Histamine



QUESTION- What would be the heart rate of a person if the cardiac output is 5L, blood volume in the end of ventricular diastole is 100ml and at the end of ventricular systole is 50ml?

- a) 50 beats/min
- b) 75 beats/min
- ~~c) 100 beats/min~~
- 4) 125 beats/min

Heart rate = ? $CO = 5L = 5000 \text{ ml}$

$$CO = HR \times SV$$

$$HR = \frac{CO}{SV} = \frac{5000 \text{ ml}}{50 \text{ ml/Beat}} = 100$$



Question- Match the following columns and select the correct option.

NEET2018



Column 1	Column 2
A) Fibrinogen	(i) OSMOTIC BALANCE
B) Globulin	(ii) BLOOD CLOTTING
C) Albumin	(iii) DEFENSE

plasma proteins

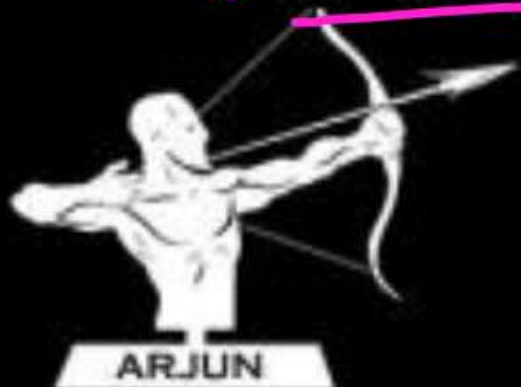
A B C

A- 3), 2), 1)

B- 1), 2), 3),

C- 1), 3), 2)

D- 2), 3), 1),



Question- adult human RBC's are enucleate. Which of the following statements is appropriate explanation for his feature.

1) they do not need to reproduce ✓

2) They are somatic cells. ✓

3) They do not metabolise ✓

✓ 4) All their internal space is available for oxygen transport ✓

A- ONLY 1

B- 1, 3 AND 4

C- 2, 3

~~D- ONLY 4~~



Question- Name the blood cells , whose reduction in no. can cause clotting disorder, leading to excessive loss of blood from the body

A- erythrocytes

B- leukocytes

C- neutrophils

← D- thrombocytes (Blood platelets)

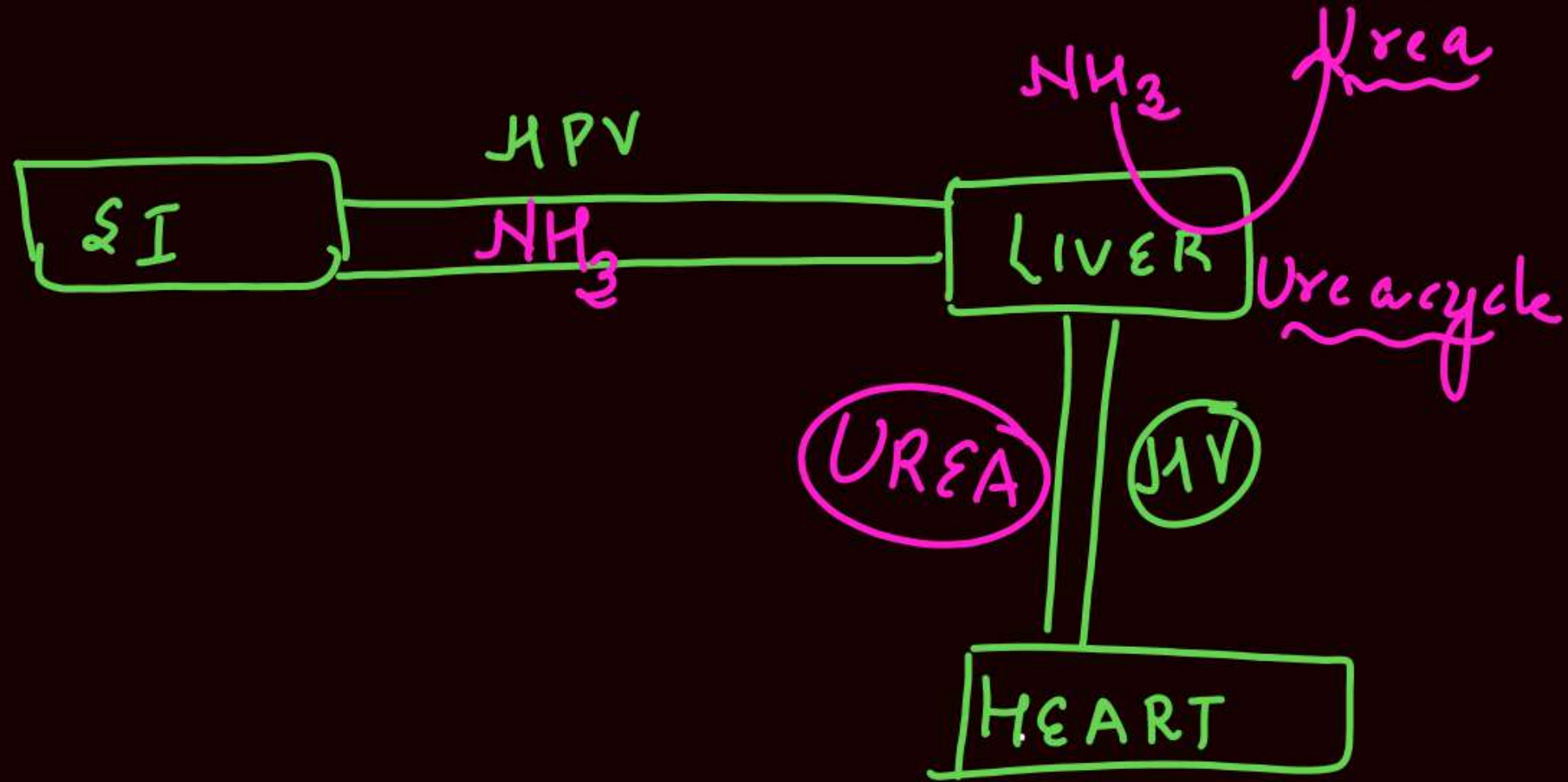
Thrombocytopenia



Q. In Mammals, which blood vessel would carry largest amount of urea?

(NEET 2016)

- a) Hepatic portal vein
- b) Renal vein
- c) Dorsal aorta
- d) Hepatic vein



Question- serum differs from blood in

- A- lacking globulins ✗
- B- lacking albumins ✗
- ☒ C- lacking clotting factors
- D- lacking antibodies

SERUM
↑
Blood Plasma - clotting factors



Question- erythropoiesis starts in

- A- spleen
- B- red bone marrow
- C- kidney
- ~~D- liver~~

Embryonic → Yolk sac ✓
↳ Liver



Thank You AIL

Biomolecules