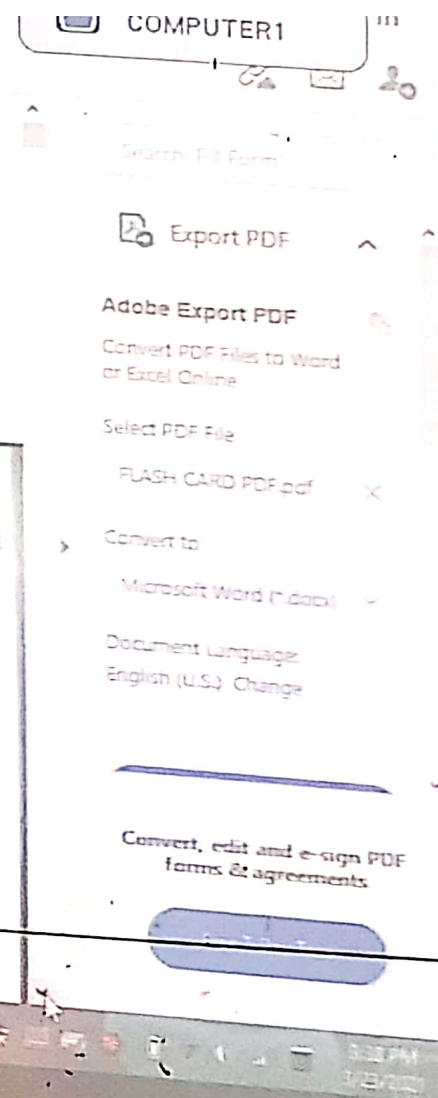


Patient of advanced age(average 69 years).with bone pain and pathological fractures at unusual sites not associated with trauma and which does not improve with treatment, bone pain with lytic lesions discovered on routine skeletal films or other imaging modalities.

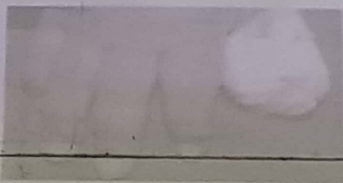
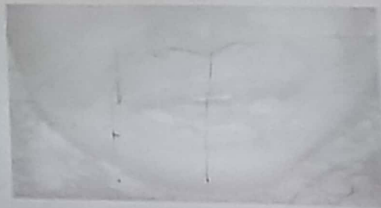
An increased total serum protein concentration and/or the presence of a monoclonal(M) protein in the serum and urine

What is the provisional diagnosis?



A young with gouty features presented with the following self mutilating lesions.

What is the provisional diagnosis?



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Select PDF File

FLASH CARD PDF.pdf

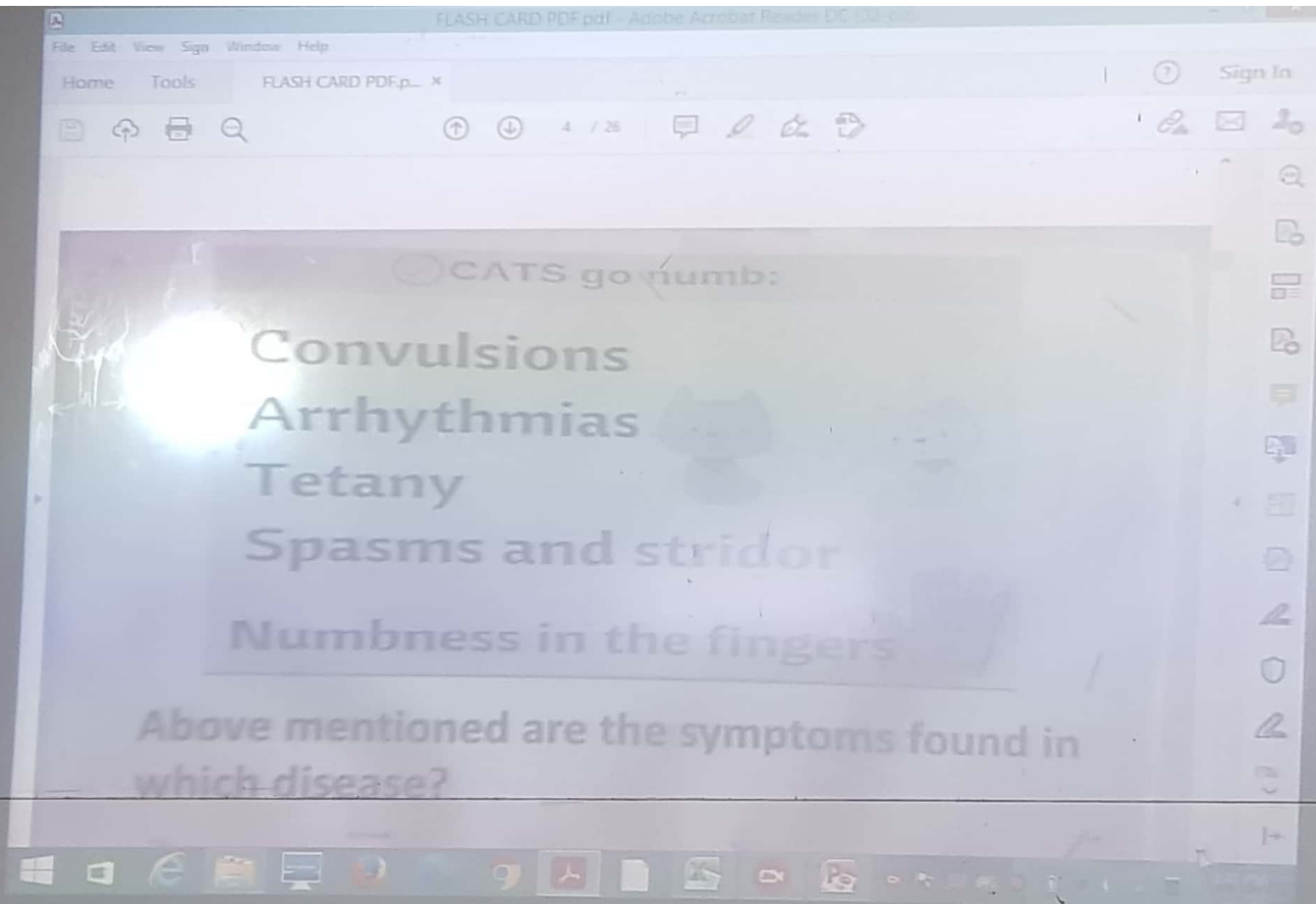
Convert to

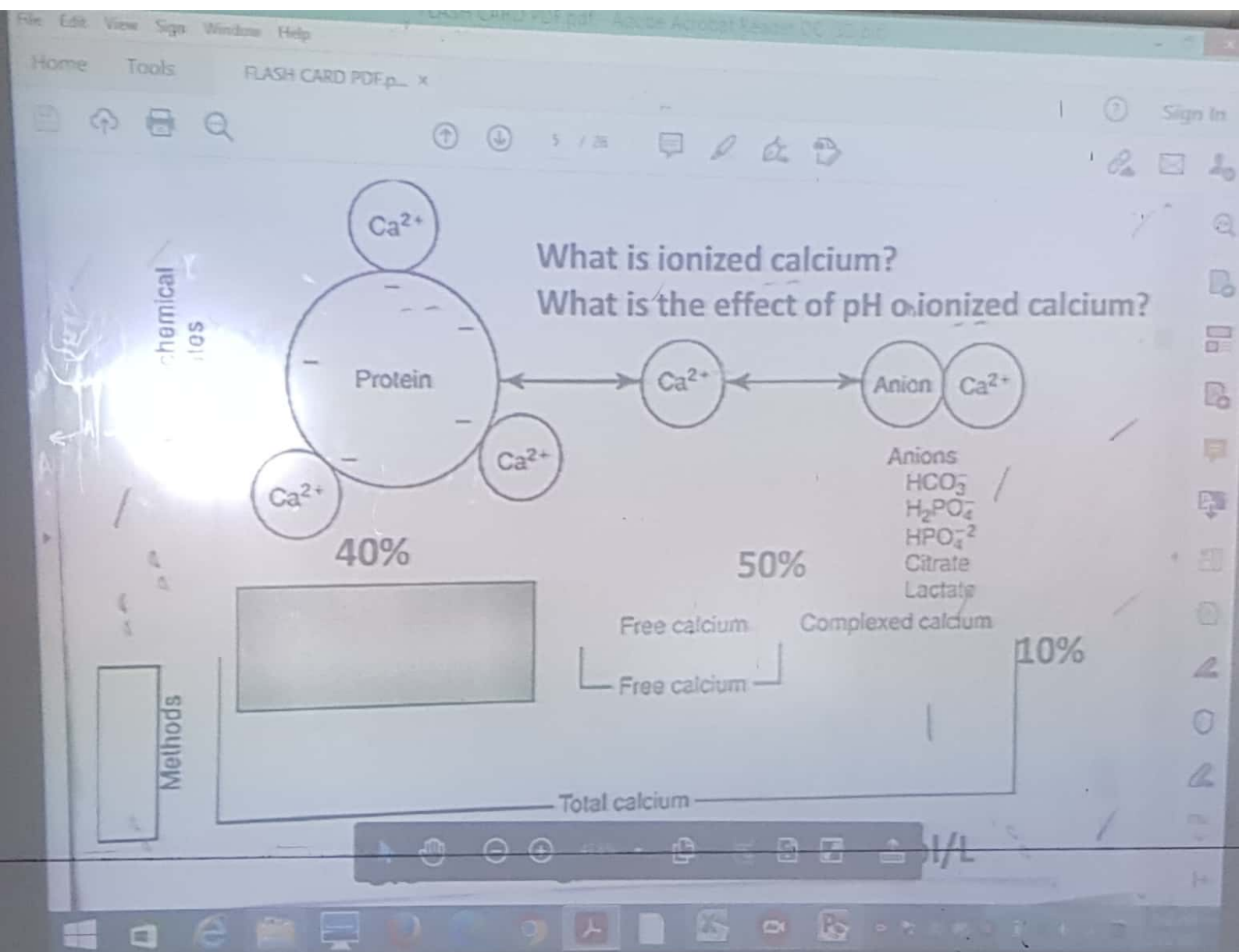
Microsoft Word (*.docx)

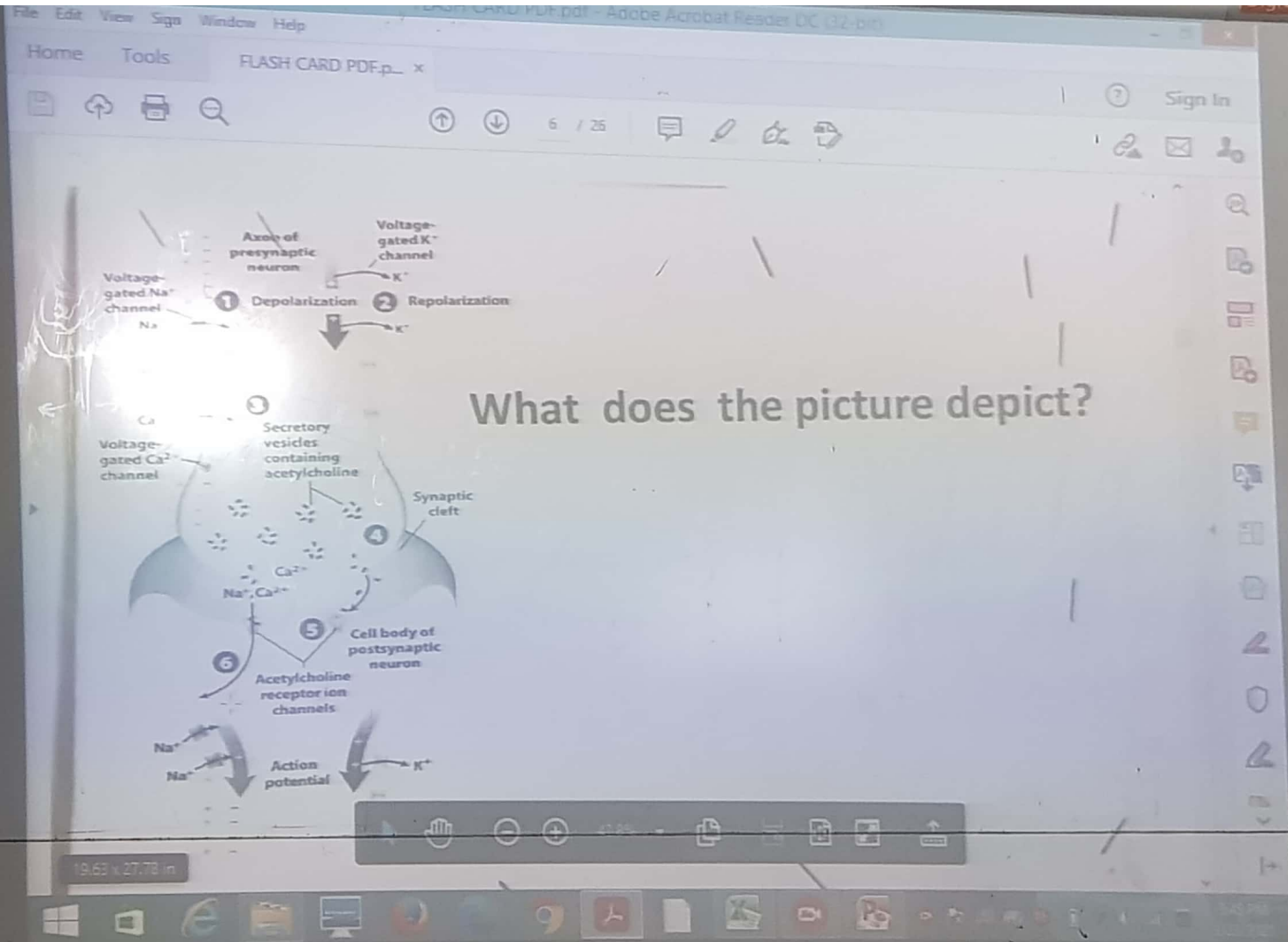
Document Language:
English (U.S.) Change

Convert, edit and e-sign PDF forms & agreements

A 50-year-old corporate executive rushed to casualty at midnight. He had excruciating pain in the right metatarsophalangeal joint and was unable to keep his foot on the floor. On examination, joint was swollen, red and extremely tender. He was given indomethacin and he relieved. He gave previous history of renal colic. Give your interpretation about the case.







Home Tools FLASH CARD PDF.p... x

7 / 25

Sign In

Which of the following is not correct?

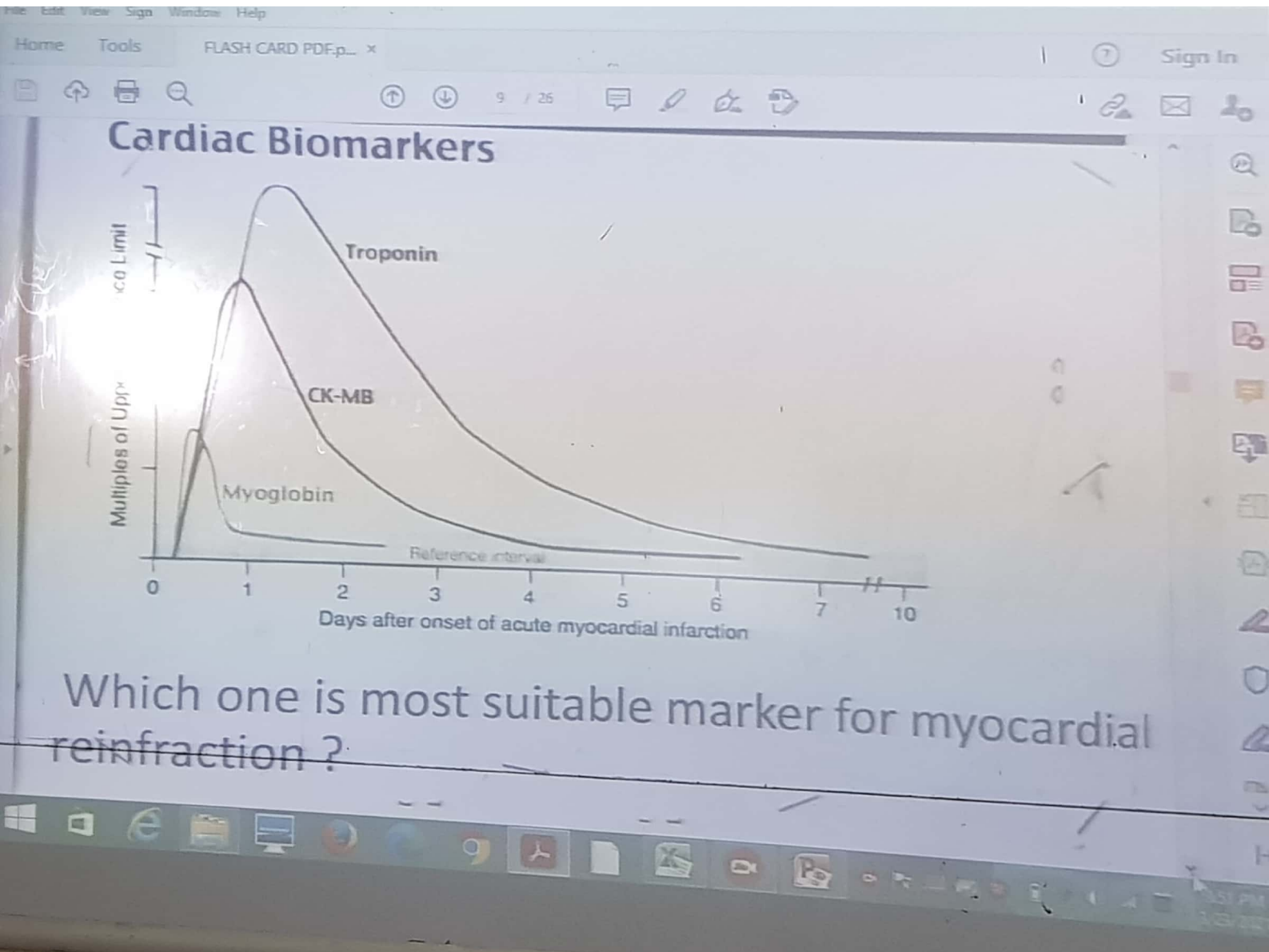
- A. Major cation of ICF: K^+ and Mg^{2+}
- B. Major anion of ICF: phosphate
- C. Major cation of ECF: Na^+ and Ca^{2+}
- D. Major anion of ICF: Cl^-
- E. Glucose is high in ICF and protein is high in ECF

Windows taskbar icons: File Explorer, Edge, Word, PowerPoint, etc.

Home Tools FLASH CARD PDF.p... x Sign In

Fatty acid role in membrane fluidity. Which one is incorrect?

- A. Longer the FA membrane more rigid
- B. More saturated FA membrane more rigid
- C. More unsaturated FA membrane more fluid
- D. More cis double bonds membrane more rigid
- E. Higher Strength of Van der waals forces between lipid molecules membrane more rigid



Home Tools FLASH CARD PDF.p... x

Sign In

10 / 25

- A 40 year old women, weighing about 80kg came to OPD of a hospital, complaining of weakness and lethargy for the last 2-3 months. She also noticed that she felt very thirsty.
- Following were the result of investigations done.
- Blood sugar (fasting) 152 mg/dl
- Blood sugar (Postprandial) 246mg/dl
- HbA1C 10%
- Cholesterol 270mg/dl
- What is your diagnosis?

Home Tools FLASH CARD PDF.p... x

11 / 25

Sign In

ABG (arterial blood gas) analysis was done for a 60 year old male who is admitted in hospital. His ABG data are as below:

Parameters	Values	Reference Range
pH	6.9	7.35-7.45
pCO ₂ (partial pressure of CO ₂)	55 mm of Hg	35-45 mm of Hg
Bicarbonate (HCO ₃ ⁻) conc.	24 mmol/L	22-28 mmol/L

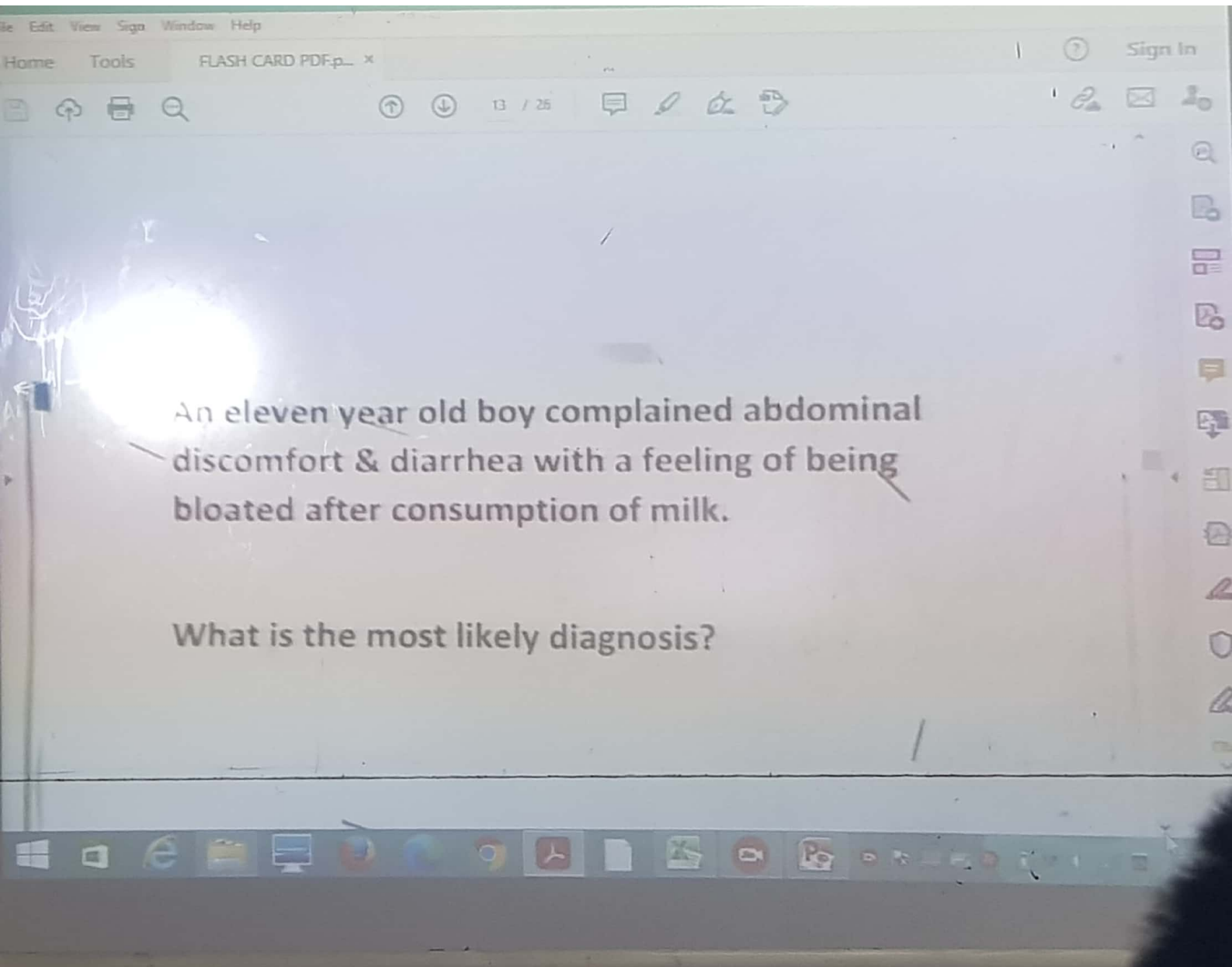
What is the diagnosis of in terms of acid-base disorder?

Windows taskbar icons: File Explorer, Edge, Chrome, Word, PowerPoint, etc.

A 40 years old male met with an RTA with chest wall injury. He was brought to the casualty hospital and ABG was done. The values are as below:

Parameters	Values	Reference Range
pH	7.0	7.35-7.45
pCO ₂ (partial pressure of CO ₂)	52 mm of Hg	35-45 mm of Hg
Bicarbonate (HCO ₃ ⁻) conc.	34 mmol/L	22-28 mmol/L

What is the diagnosis in terms of acid-base imbalance?



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Home Tools FLASH CARD PDF.p... x

14 / 26

12-day old baby had yellow discoloration of sclera of eyes & passing yellow colored urine. His serum total bilirubin level is 17 mg/dl (reference range <1 mg/dl), most of it being unconjugated bilirubin. The pediatrician has advised for phototherapy for the baby.

What is the most likely diagnosis?

What is the most likely diagnosis?

Taskbar icons: Windows, File Explorer, Edge, Word, PowerPoint, OneDrive, etc.

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15 / 26

A 50 year old female was complaining of tiredness, weight gain, cold intolerance, husky voice, neuromuscular pain & constipation. She was found to be anemic. Her lab data are as below:

Parameters (serum)	Lab value	Reference range
T3	110 ng/dl	70-210 ng/dl
T4	4 mcg/dl	4.2-12 mcg/dl
TSH	22 microU/ml	0.5-4 micro U/ml
Cholesterol	256 mg/dl	150-220 mg/dl

What is the most probable diagnosis?

File Edit View Sign Window Help

Home Tools FLASH CARD PDF.p... x

Sign In

A 28 year old female patient with severe vomiting & hypokalemia was admitted in hospital. Her ABG (arterial blood gas) analysis data was as below:

Parameters	Values	Reference Range
pH	7.6	7.35-7.45
pCO ₂ (partial pressure of CO ₂)	38 mm of Hg	35-45 mm of Hg
Bicarbonate (HCO ₃ ⁻) conc.	38 mmol/L	22-28 mmol/L

What is the diagnosis in terms of acid-base disorder?

Home Tools FLASH CARD PDF.p_ x

17 / 25

Sign In

A 11 months old male baby had growth retardation, reduced physical activity, muscle wasting (emaciation), loose folds of skin wrapped over bones. The mother of baby informed the physician that she had been giving child rice gruel along with breast milk. The laboratory data of the baby are given below:

Parameter	Lab Value	Reference range
Hb	7.1 g/dl	12-16 g/dl
Serum proteins (total)	6 g/dl	6-8 g/dl
Serum albumin	3 g/dl	3-4.5 g/dl
Serum Potassium	3.5 mmol/L	3.5-5 mmol/L

What is the most likely diagnosis?

FLASH CARD PDF.p... x

18 / 25

Sign In

A 7-year old boy had bone deformities such as bow legs and pigeon chest. He had history of delayed eruption of teeth. His mother informed the physician that the boy had been on a strict vegetarian diet with low intake of milk as well as fats & oils.

His serum Calcium level is 7.9 mg/dl (reference range 9-11 mg/dl), serum Phosphate level is 2.4 mg/dl (reference range is 3-4.5 mg/dl) & serum Alkaline phosphatase (ALP) is 45 KAU/dl (reference range 3-13 KAU/dl).

What is the most likely diagnosis?

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19 / 25

A 3 year old boy suffering from delayed development, speaking & walking difficulty, mental retardation, seizures & tremors. The boy had a plasma phenylalanine level of 32 mg/dl (reference range 1-2 mg/dl). His urine gave a positive FeCl_3 test.

What is the diagnosis?

Windows taskbar icons: Start, File Explorer, Edge, Word, PowerPoint, OneDrive, Camera, Mail, Photos, Settings, Task View, Search, Taskbar.

A 17 year old boy had generalized edema with puffiness of face. His lab data are as below:

Parameter	Lab value	Reference range
Serum total proteins	4.5 g/dl	6-8 g/dl
S. albumin	1.5 g/dl	3.5-5 g/dl
S. globulin	3.0 g/dl	2.5-3.5 g/dl
S. Cholesterol	355 mg/dl	150-220 mg/dl
Blood urea	30 mg/dl	15-40 mg/dl
S. creatinine	1.1 mg/dl	0.5-1.2 mg/dl
Urinary proteins	17 g/day	<100 mg/day

The serum electrophoresis of the subject showed a sharp & prominent Alpha2-globulin band.

What is the most likely diagnosis?

File Edit View Sign Window Help

Home Tools FLASH CARD PDF.p... x

Sign In

A 60 year old man was brought to emergency with c/o severe chest pain, breathlessness & palpitation. His lab finding of blood is as below:

Parameters (Serum)	Lab Value	Reference Range
Creatine phosphokinase (CPKMB)	420 IU/L	10-50 IU/L
Aspartate Transaminase (AST)	70 IU/L	5-45 IU/L
Lactate dehydrogenase (LDH)	318 IU/L	50-200 IU/L

File Edit View Sign Window Help

Home Tools FLASH CARD PDF.p_ x

22 / 26

Sign In

A 30 year old man was on treatment with antimalarial drug, Primaquine. As the treatment was in progress, he developed complications. This patient's laboratory investigation data are as below:

Parameter	Value	Reference Range
Hematocrit	30%	45-50%
Hemoglobin	Before treatment-12 g/dl & after treatment-8 g/dl	12-16 g/dl
Serum total bilirubin	3.6 mg/dl	<1.2 mg/dl

The laboratory test also indicated that there was increased fragility of RBCs.

Taskbar icons: File Explorer, Edge, Chrome, Word, PowerPoint, etc.

FLASH CARD PDF.p... x

		Reference range
Hematocrit	30%	45-50%
Hemoglobin	Before treatment-12 g/dl & after treatment-8 g/dl	12-16 g/dl
Serum total bilirubin	3.6 mg/dl	<1.2 mg/dl

The laboratory test also indicated that there was increased fragility of RBCs.

What is the deficiency syndrome?

Windows taskbar icons: Windows, Edge, File Explorer, Microsoft Word, Google Chrome, Adobe Reader, PowerPoint, etc.

File Edit View Sign Window Help

Home Tools FLASH CARD PDF.p... x

Sign In



A 60 year old man was brought to hospital in semiconscious & confused state. He had low BP & feeble pulse. His breath had fruity odour. The lab data of the patient is as below:

Parameter	Lab value	Reference Range
Blood pH (arterial blood)	7.1	7.35-7.45
Serum bicarbonate	14 mmol/L	22-28 mmol/L
pCO ₂ of arterial blood	40 mm of Hg	35-45 mm of Hg
Random plasma glucose	575 mg/dl	< 140 mg/dl



FLASH CARD PDF.p... x

Sign In

bicarbonate		
pCO ₂ of arterial blood	40 mm of Hg	35-45 mm of Hg
Random plasma glucose	575 mg/dl	< 140 mg/dl
Urine for glucose (dip-stick method)	Positive	
Urine for ketone bodies (dip-stick method)	Positive	

What is the most probable diagnosis & what type of acid base disorder is it?

Windows taskbar icons: File Explorer, Edge, Word, PowerPoint, etc.

File Edit View Sign Window Help

Home Tools FLASH CARD PDF.p_ x

23 / 26

glucose		
Urine for glucose (dip-stick method)	Positive	
Urine for ketone bodies (dip-stick method)	Positive	

What is the most probable diagnosis & what type of acid-base disorder is it?

Scanned by TezScanner

Scanned with CamScanner

- The bone marrow smear of a strict vegetarian female patient presenting with weakness, fissured tongue and paralysis is displayed.



- Make a diagnosis ?

File Edit View Sign Window Help

Home Tools FLASH CARD PDF.p_ x

25 / 25

- A 35 year old male was brought to emergency department of sanaka hospitals, after RTA. He had chest wall injury. His ABG report was showing the following values :
 - PH 7.2 (**7.35 – 7.45**)
 - HCO_3^- 22 (**22-28**) mmol/L
 - pCO_2 60 (**35- 45**) mm of Hg Normal values mentioned in **Bold**
- Which acid-base imbalance it denotes ?

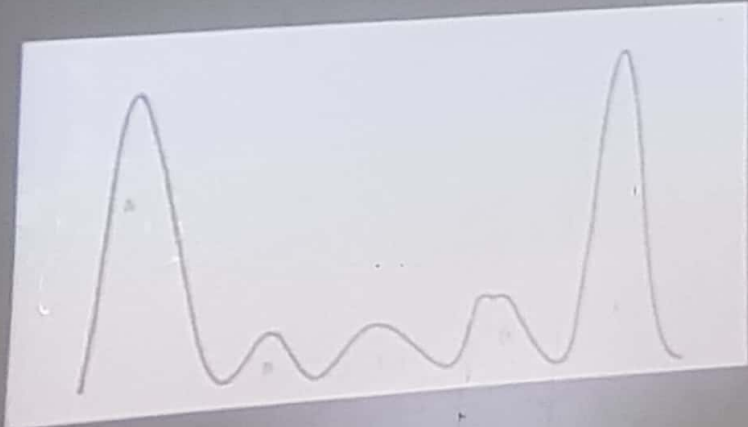
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Home Tools FLASH CARD PDF.ppt x

25 / 25

ELECTROPHORESIS

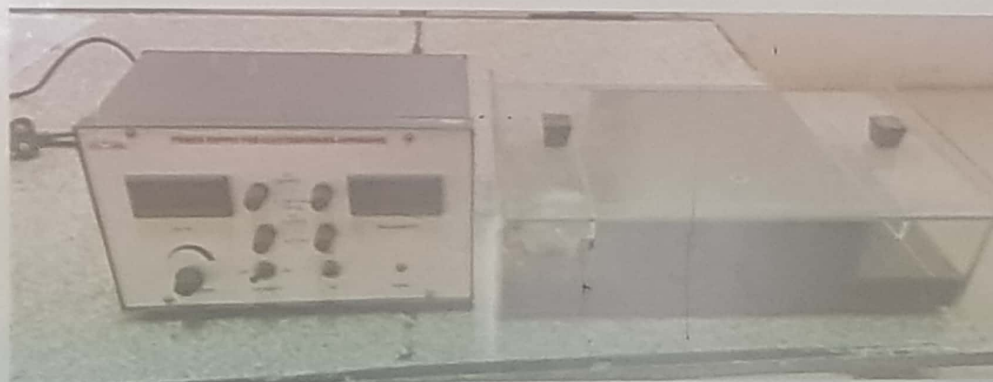


Identify peak E and mention two important functions of the biomolecule that occupies this region

Spotting

- Identify the instrument
- Write the principle in short

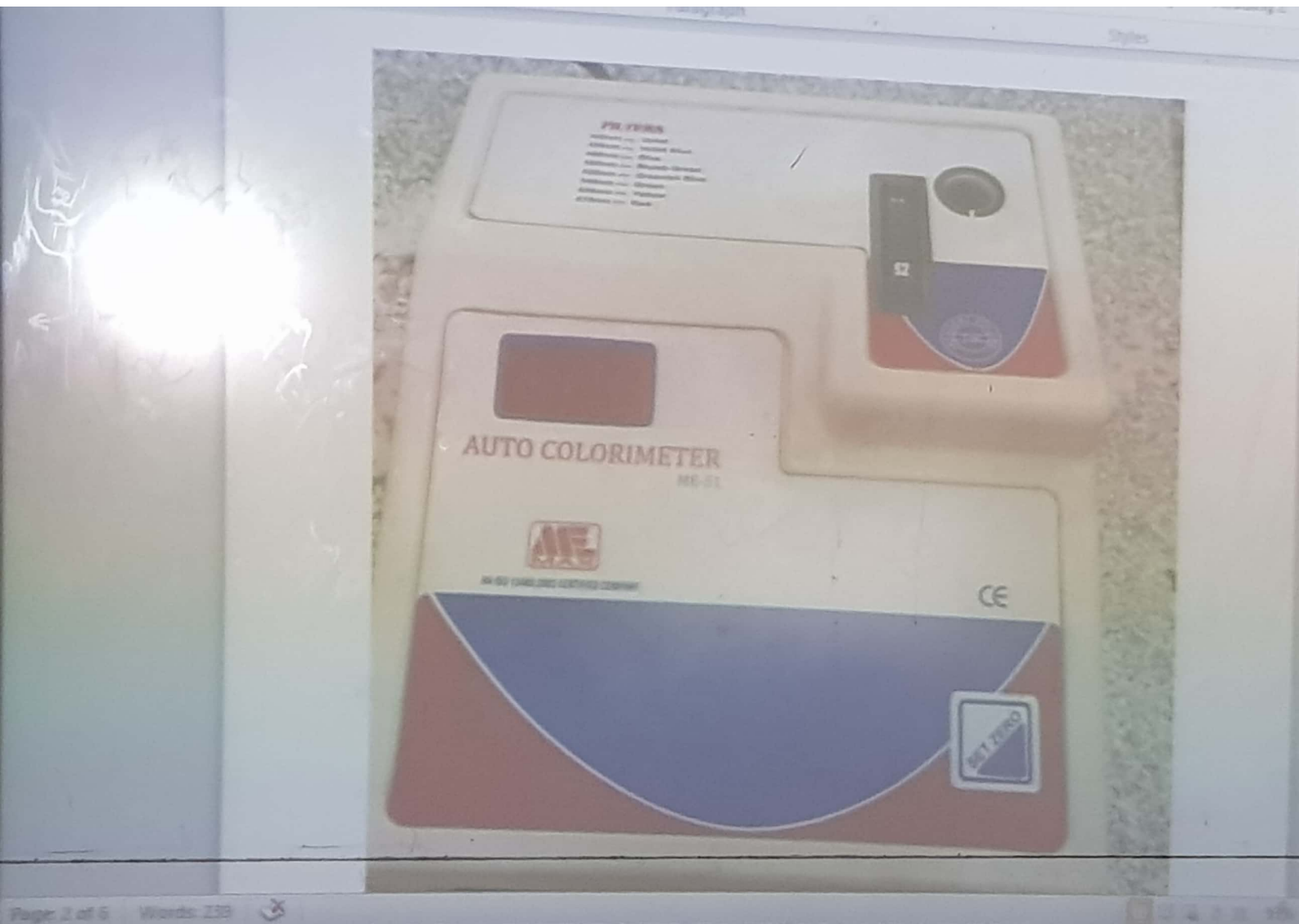
2 (1+1)



- electrophoresis with power pack

- Identify the instrument
- Write the different components of the instrument

2 (1+1)



➤ electrophoresis with power pack

➤ Identify the instrument /

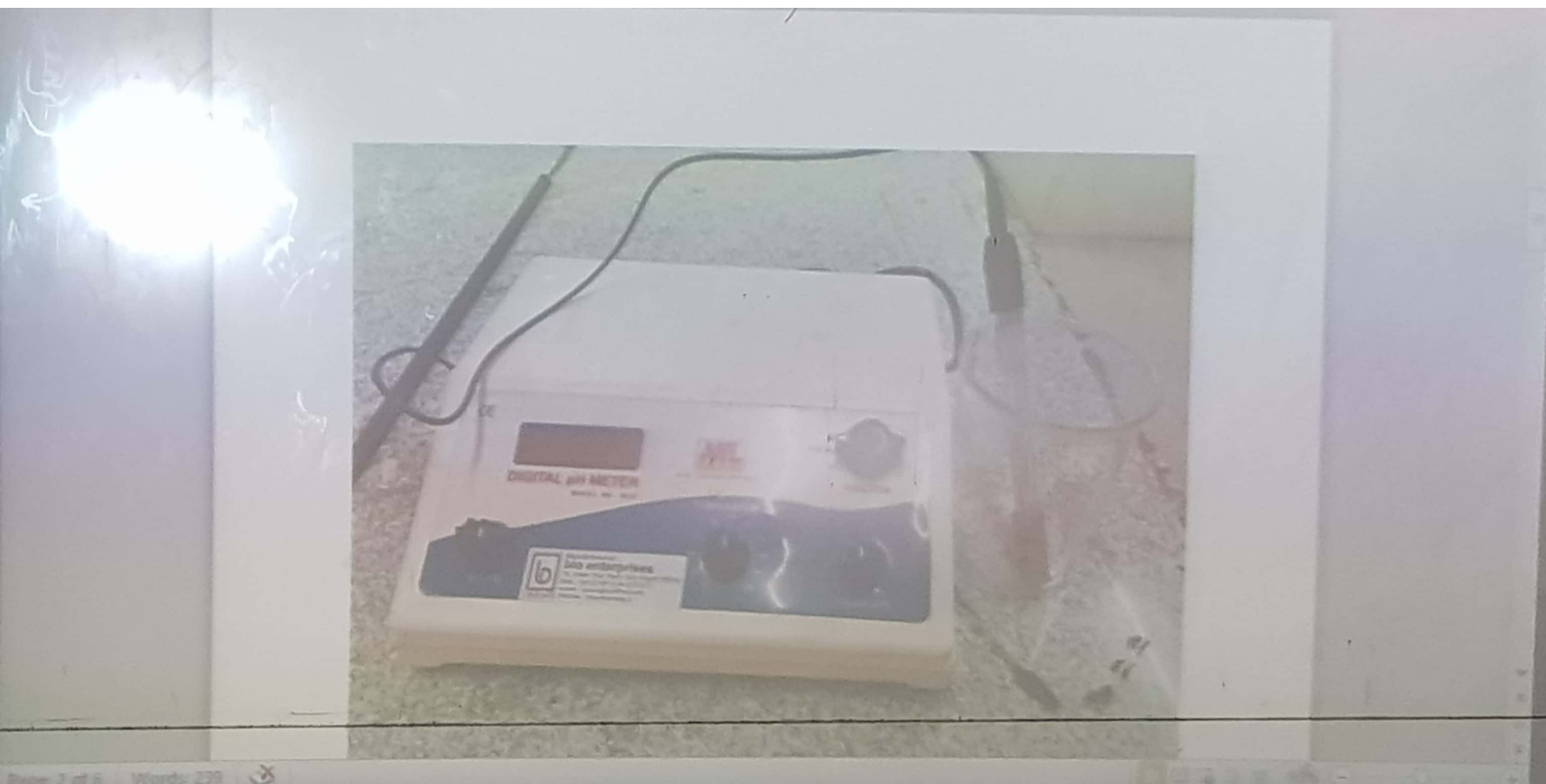
2 (1+1)

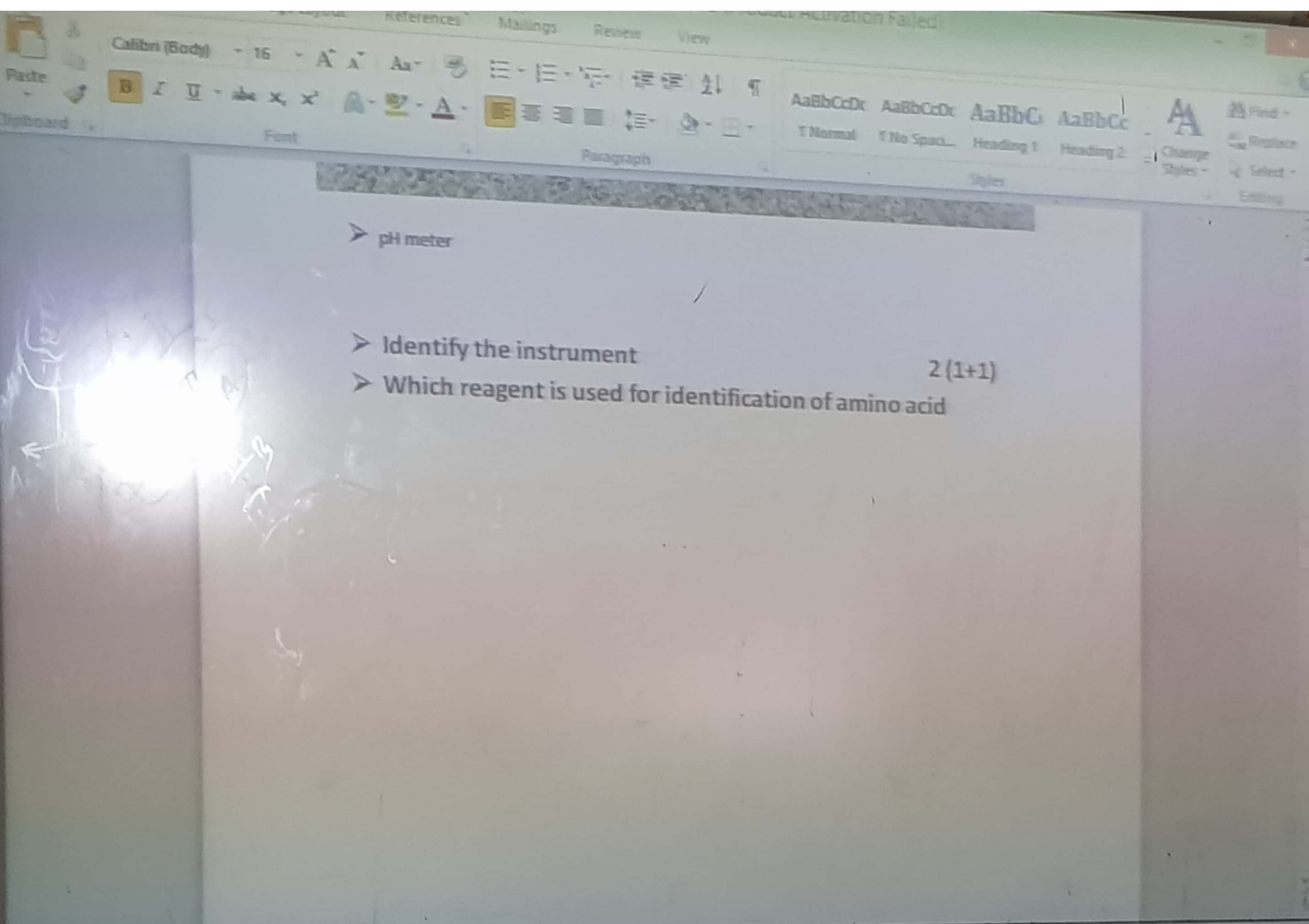
➤ Write the different components of the instrument

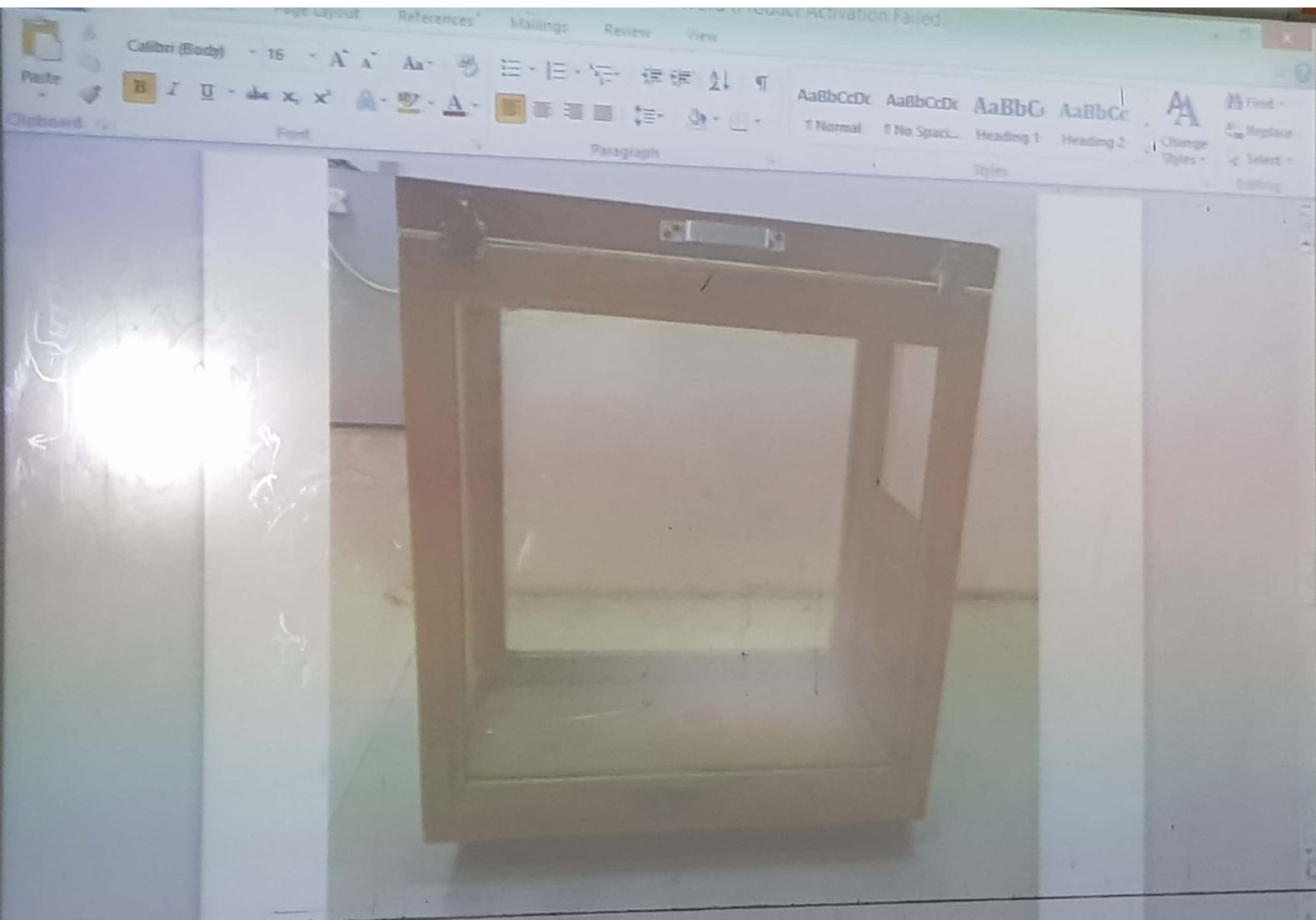


- colorimeter
- Identify the instrument
- Write in short principle behind

2 (1+1)







✓ pH meter

- Identify the instrument / 2 (1+1)
- Which reagent is used for identification of amino acid

- Identify the test
- It is done for which abnormal constituent of urine
- The red precipitate formed in test Test is of ? 2 (0.5+0.5+1)

➤ Benedict's Test – reducing sugar – cuprous oxide

➤ Identify the test

➤ Write heat coagulatable protein 2 (0.5+0.5+1)

➤ Identify the test

➤ Write heat coagulatable protein

2 (0.5+0.5+1)

➤ write clinical significance of the test

➤ Heat coagulation test (albumin protein)

➤ Identify the test

➤ Write the name of ketone bodies which give the test positive

➤ Write clinical significance of the test

2 (0.5+0.5+1)

➤ Rotheras test (Ketone bodies)

➤ Identify the test

2 (1+1)

➤ Write clinical significance of the test

➤ Heat coagulation test (albumin protein)

➤ Identify the test

➤ Write the name of ketone bodies which give the test positive

➤ Write clinical significance of the test 2 (0.5+0.5+1)

➤ Rotheras test (Ketone bodies)

➤ Identify the test

2 (1+1)

➤ Write clinical significance of the test

➤ Hay's sulphur test

➤ Write clinical significance of the test 2 (0.5+0.5+1)

➤ Rotheras test (Ketone bodies)

➤ Identify the test 2 (1+1)

➤ Write clinical significance of the test

➤ Hay's sulphur test

➤ Identify the test

➤ state the reason for finding green colour filter paper

➤ Write clinical significance of the test 2 (0.5+0.5+1)

➤ Bile pigment (Fouchet's test)

➤ Name the test

➤ It is done for which abnormal constituent of urine?

➤ it is based on the principle of

2 (0.5+0.5+1)

➤ Blood (Ortho-toludine test)

1	$\alpha 1$ ALP	Biliary canaliculi	10%
2	$\alpha 2$ heat-labile ALP	Hepatocytes	25%
3	$\alpha 2$ heat-stable ALP	Placenta	1%
4	bone β ALP	Bones	50%
5	δ ALP	Intestine	10%
6	Leucocyte ALP	Leucocytes	4%

OSPE - pH meter, chromatography, electrophoresis
- test abnormal urine -

10 OSPE
10 Logb.
20 Qual } 10 copy
20 Quant } 10 copy

Flashcards - 10 + 10 (2)
Grand viva -
Q.P 18 II **

FLASH CARDS

- 1) Multiple myeloma - (bone pain - ...)
- 2) Lesch Nyhan - gout
- 3) Gout
- 4) Hypocalcemia - Tetany
 - Ca^{2+} * - bone levels
 - hormone
 - metab

5) Ca^{2+}

1. free - ionised - active

* fn. of intra & extra cell also their levels

Ca^{2+} protein Ca^{2+}

Ca^{2+}

anion Ca^{2+}

11. complex - used prot -
used anion

* effect of pH.

alb

α_1

α_2

β

$\delta = \alpha_{lob.} \cdot \underline{10^3} \cdot (mm)$

SPOTTING (Instat + Principle)

- 1) Electrophoresis used power pack electric generated field given
- Principle
- 2) Colorimetry
- principle
- components
- Beer Lambert law
- 3) pH meter
- 4) Chromatography
- what reagent - Ninhydrin
- Beilstein
- 5) Benedict's
- 6) Heat coagulation
- principle - tautomerism
- 7) Rothera's Test
- 8) Hay's sulphur
- 9) Fouchet's Test
- 10) O-tolidine principle

(Test → clinical significance)

(↑ ↓ cause physiological)

- 12) compensated resp. acidosis
- 13) lactose intolerance
- fructose + galactose metabolism
- 14) Neonatal jaund. (kernicterus)
(- NOT physiological
cause of neonatal jaundice)
- 15) Hypothyroidism - also hypothyroidism
TSH $\propto$ most imp
(-ve feedback)
 $\rightarrow$ hypothyroidism
cholesterol $\uparrow$
odd
hypertension
- 16) metab. alkalosis
- 17) Marasmus (muswasting)
+ add
kwashiorkor
- 18) Rickets (Ca^{2+})
- 19) PKU (ox. a.a. metab)
- *20) Nephrotic syndrome
d 2 globulin band prominent - but not excreted
in urine, large.
- 21) M.I. (cardiac biomarkers)
- 22) G6PD deficiency - RBC. memb
- glutath. (ox + red)
- 23) OKA (family breath)
- 24) vit B12 def.
- 25) alkalosis resp.

- memb transport across e.g.
- dep, rep.
- ion channels
- channel v/c pump (diff)

* 7) ICF & ECF (conc.) - tricky.
(e) false (d)

8) f.a - in phospholipid tails - in memb.
|
sphingol - alc. H₂nt

9) cardiac biomarkers
CKMB - infarct - peak less transient - reinfarct.
troponin - diag (peak stays for longer time)
myoglobin - inf
icky AST, but not

* * 10) D.M

Diagnostic markers
values
normal / pre diab

* Frank diabetes / latent diab = pre diabetes

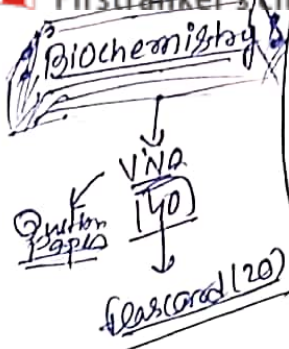
full sum
symptoms

cholesterol - excess glucose
- acetyl CoA
- Krebs cycle

11) resp acidosis (uncompensated)

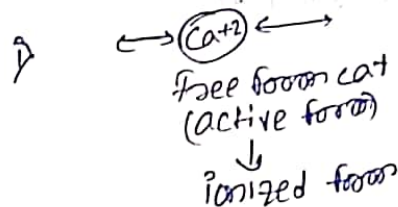
60 yrs old ♂

- lung (less elast compliance)
- less elasticity



Electrolyte (10) Quant (10) Viva (10) NOIPEBOOK (10)

- ① Multiple myeloma (M protein)
- ② Lesh nyhan syndrome
- ③ gout
- ④ Hypocalcemia (tetany) (Ca^{2+} homeostasis eno.)
- ⑤



→ Functions of extracellular & intracellular Ca^{2+} ?

→ 

if Anion ↑ free Ca^{2+} ↓ bcz they binds.

- ⑥ Nerve impulse transmission
 - if Membrane transport en.
 - if Depolar, Repolar.?
 - if ion pumps.

⑦ D and E both.

⑧ (Phospholipase)
Sphingolipid

⑨ CK-MB (in 3 to 4 days) (for Reinfarction),
Troponin (best for diagnosis) (7 days)

⑩ Diabetes Mellitus
- Frank D.M (Symptoms eno.)

more insulin
↓
excess glucose not utilized
↓
Hypercholesterol.

- ① Resp. Acidosis
elder male → lungs not expand properly.
- ② compensated Resp. Acidosis
- ③ Lactate intolerance
→ Distal type of Lactate intolerance
glucose intolerance
fructose metabolism
- ④ Neonatal jaundice
→ causes?
- ⑤ Hypothyroidism (features, symptoms - why cholesterol ↑)
TSH ↑ → Negative Feedback (↑ TSH ↓ ↓)
- ⑥ Severe vomiting
→ Metabolic alkalosis
- ⑦ Muscle wasting → Marasmus
- ⑧ Rickets (Bow leg)
- ⑨ Phenylketonuria (PKU)
→ Tyrosine keto.
- ⑩ Nephrotic syndrome (prominent AL-globulin bands)
→ serum protein bands
- ⑪ Myocardial infarction
- (elder maintain O₂ satⁿ?)
(osmotic stress?)
- ⑫ Bilirubin ↑
- ⑬ G.I. P.D. syndrome (Deficiency)
→ AL secretion maintain
- ⑭ Diabetic ketoacidosis
- ⑮ Vit B12 Def
(mucocytic PPT)
- ⑯ Resp. Alkalosis.
- ⑰ Protein excretion (Glomerulopathy)

- Spotting
- ① Electrophoresis with paper elect.
(horizontal electro phoresis)
 - ② Electrophoresis
→ Bare lambers can?
 - ③ pH meter
 - ④ Chromatography
→ Nitrohydrazine reagent (why it is used?)
→ 3,4,4.
 - ⑤ Physiological cause of protein
Pathological
- Biuret
↓
peptide bond