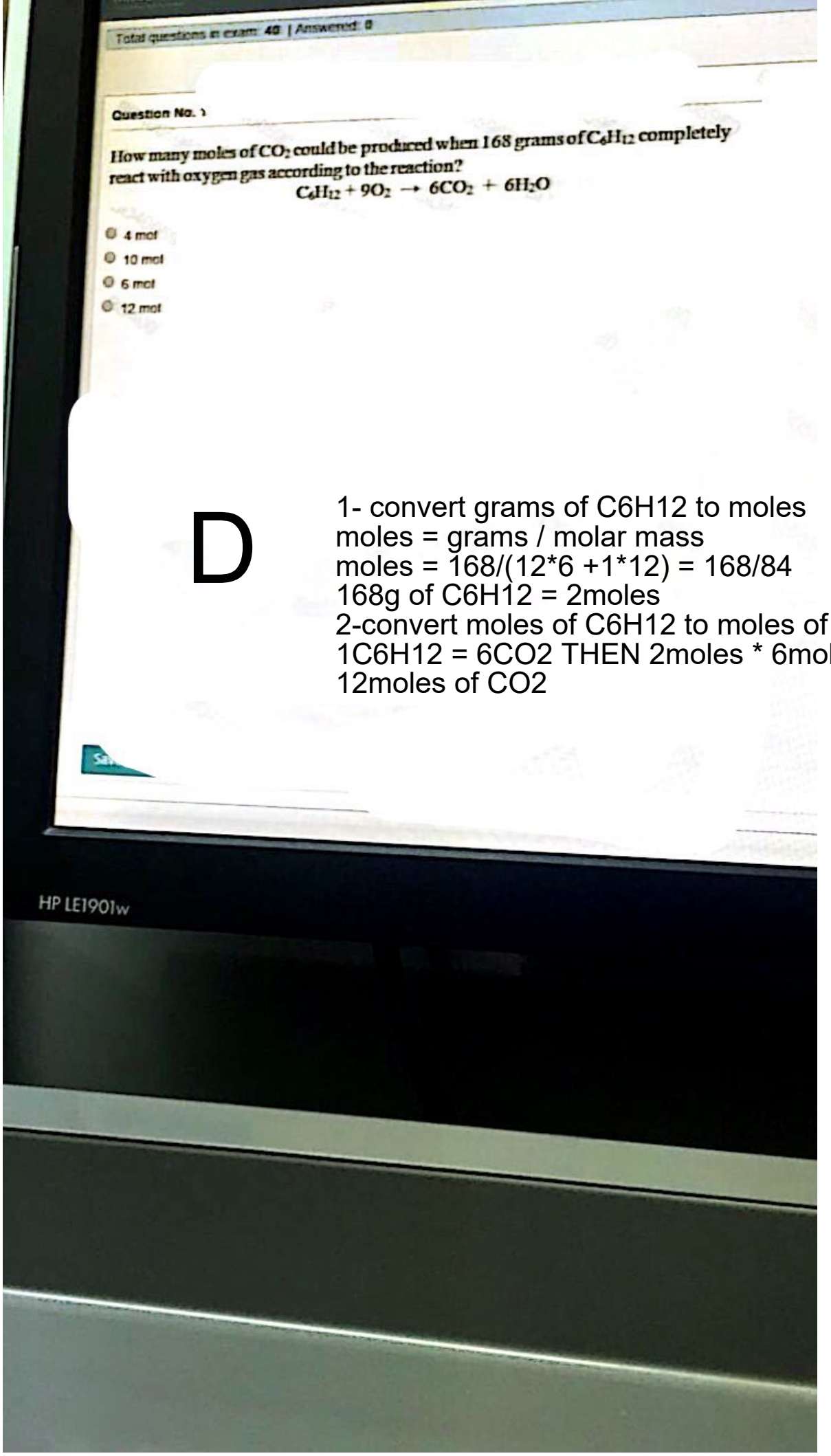
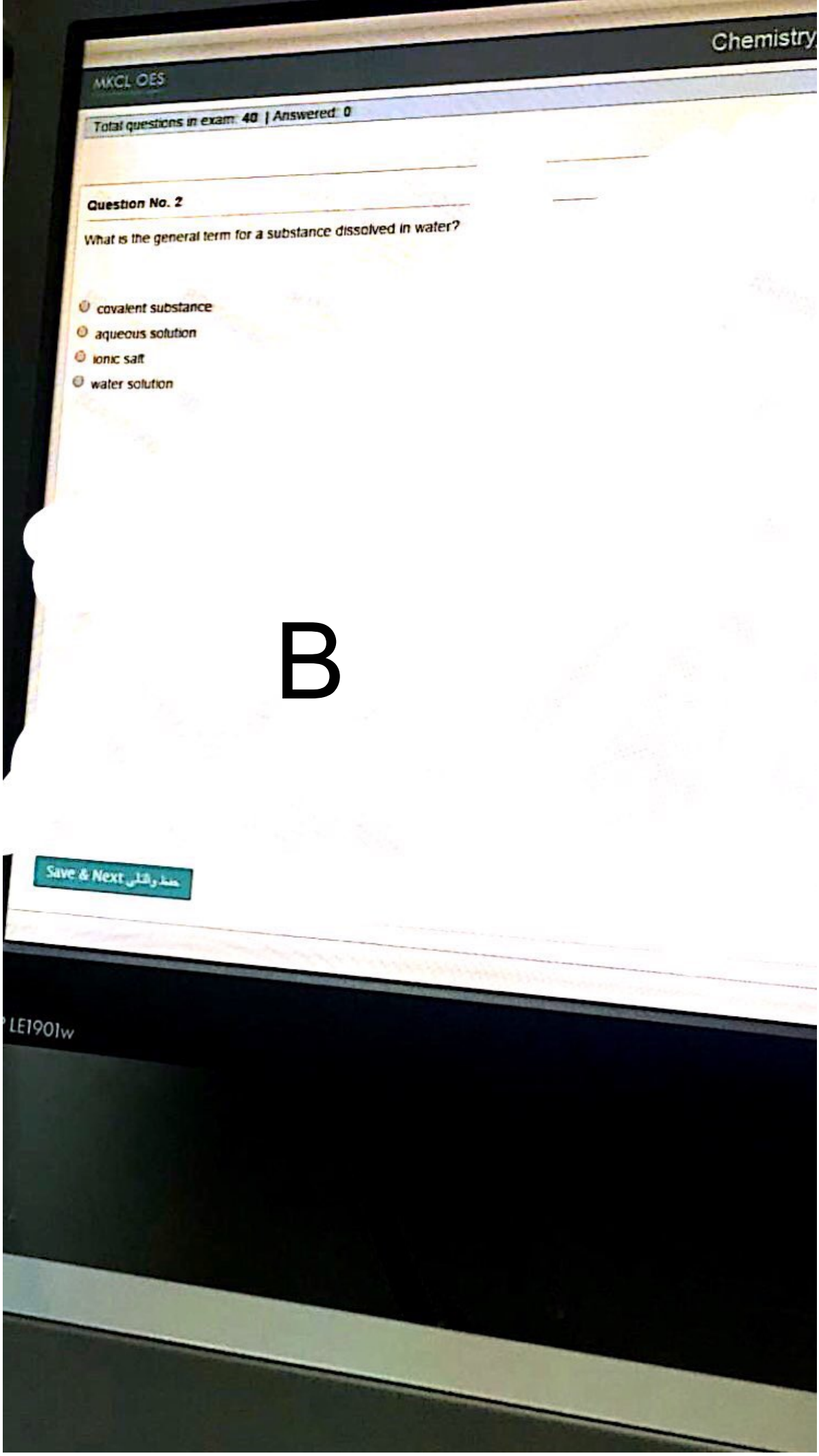
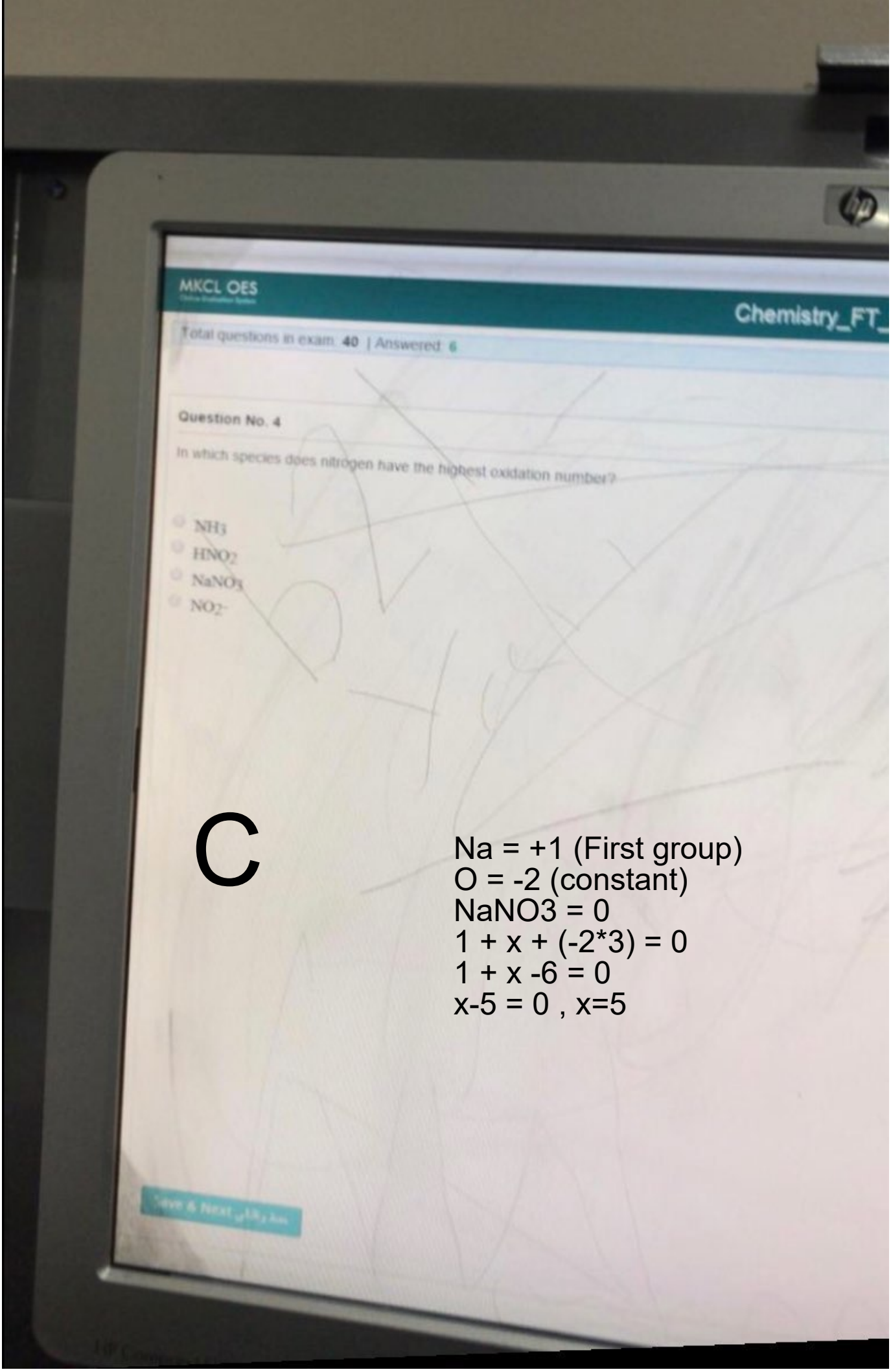


D

1- convert grams of C6H12 to moles
moles = grams / molar mass
moles = 168/(12*6 +1*12) = 168/84
168g of C6H12 = 2moles
2-convert moles of C6H12 to moles of CO2
1C6H12 = 6CO2 THEN 2moles * 6moles = 12moles of CO2





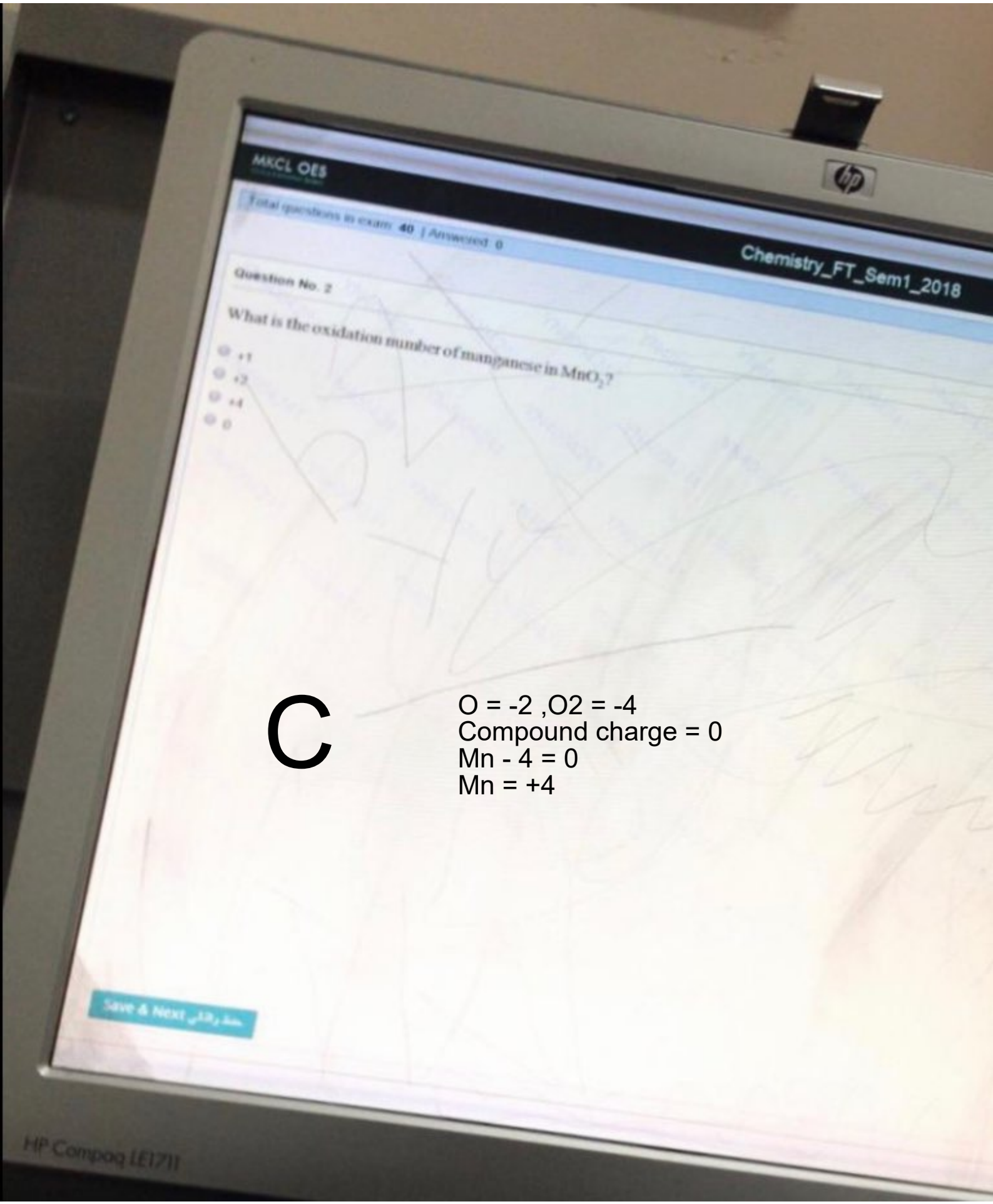
Questic

For the reaction: $C_{(s)} + H_2O_{(g)} \rightleftharpoons H_{2(g)} + CO_{(g)}$ ΔH is positive (endothermic)
What would be the effect of removing H_2 gas from the reaction vessel?

- More water will be formed.
- The reaction will shift to the left.
- The reaction will shift to the right.
- The reaction will not be affected

C

La Chatelier's princple of concentration:
-if we add THE reaction shifts to the opposite side
- if we remove THE reaction will shift to the same side



C

O = -2 ,O2 = -4
Compound charge = 0
Mn - 4 = 0
Mn = +4

The coefficients (a,b,c) needed to balance the equation below are:

$$a\,Li + b\,Cl_2 \rightarrow c\,LiCl$$

- (2,1,2)
- (1,2,1)
- (2,2,1)
- (1,2,2)

A

2Li + Cl2 -> 2LiCl
Li: 2 , Cl: 2

Save & Next حفظ والتالي

HP Compaq LE1711

What is the family of this organic compound?

CH_3-CH_2-NH_2

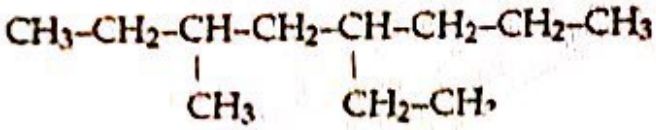
- phenol
- amine
- amide
- ether

B

R-NH2 OR C-NH2
IT IS AMINE

Save & Next حفظ والتالي

What is the IUPAC name for the following?



- 4-ethyl-6-methyloctane
- 3-ethyl-5-methyloctane
- isooctane
- 5-ethyl-3-methyloctane

D

Save & Next حفظ والتالي

Question No. 11

In the "Basic" solutions, _____

- $pH < 7$ and $[H_3O^+] > 10^{-7}$ M
- $pH = 7$ and $[H_3O^+] = 10^{-7}$ M
- $pH > 7$ and $[H_3O^+] > 10^{-7}$ M
- $pH > 7$ and $[H_3O^+] < 10^{-7}$ M

D

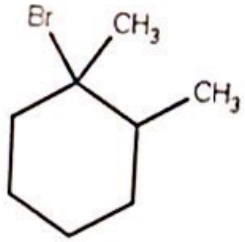
10^8 to 10^14 are < 10^7

MKCL OES

Total questions in exam: **40** | Answered: **0**

Question No. 10

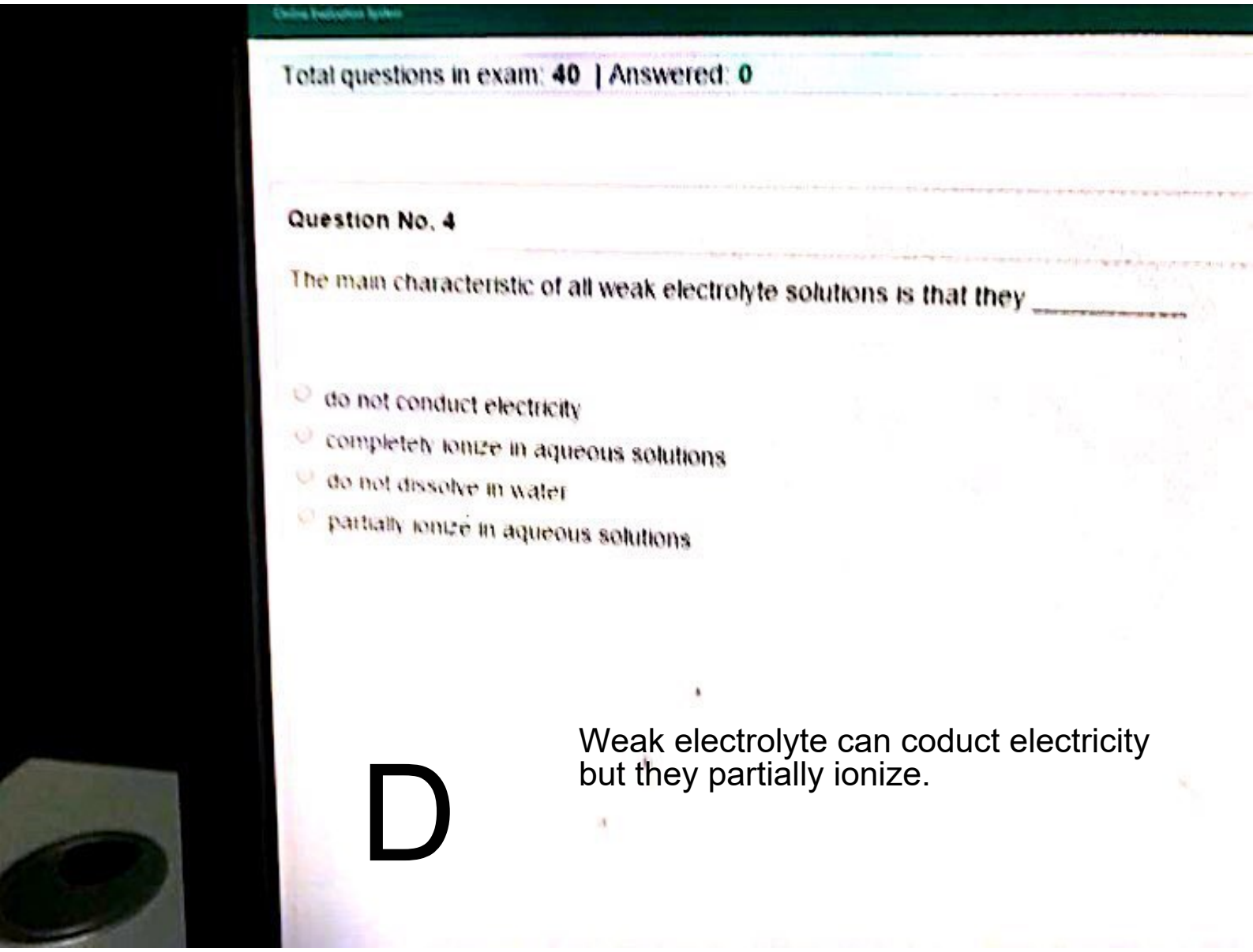
Choose the correct name for the following compound:



- 1-bromo-1,2-dimethylbenzene
- 1-bromo-1,2-dimethylcyclohexane
- 2-bromo-2-methyltoluene
- 2-bromo-1,2-dimethylcyclohexane

B

Save & Next



D

Weak electrolyte can coduct electricity but they partially ionize.

MKCL OES

Chemistry_FT

Total questions in exam: **40** | Answered: **0**

Question No. 17

In the reaction below, what is the theoretical yield in moles for NO when 5 moles of NH_3 react with 7 moles of O_2?

$$4\ NH_3 + 5\ O_2 \rightarrow 4\ NO + 6\ H_2O$$

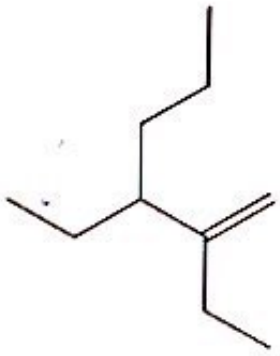
- 3.6 mol
- 2.4 mol
- 5.0 mol
- 4.8 mol

C

Total questions in exam: **40** | Answered: **0**

Question No. 12

Name the following organic compound:



- 4-ethyl-3-methyleneheptane
- 2,3-diethyl-1-hexene
- 2,3-diethyl-1-hexyne
- 2-ethyl-3-propyl-1-pentene

B

Which of the following solutions is the most basic?

- $[H_3O^+] = 1.0 \times 10^{-10}\ M$
- $[OH^-] = 1.0 \times 10^{-10}\ M$
- $[OH^-] < 1.0 \times 10^{-10}\ M$
- $[H_3O^+] > 1.0 \times 10^{-7}\ M$

A

pH > 7 base, pH<7 is acid
[H3O] = 1*10^-x , x=pH
[OH] = 1*10^-x , pH = 14-x
[H3O] = 1*10^10, pH =10 (Base)

Save & Next حفظ والتالي

Ques\

What is the chemical formula for magnesium hydroxide?

- $MgOH_2$
- MgOH
- MgH_2
- $Mg(OH)_2$

D

Mg = +2 , OH = -1
Mg(OH)2

Save & Next حفظ والتالي

Ques

What is the conjugate acid of NH_3?

- NH_3
- NH_2^-
- NO_3
- NH_4^+

D

Conjugate acid is a base which accepts a proton
NH3 + H -> NH4+

ve & Next حفظ والتالي

HP Compaq LE1711

Chemistry_FT_Sem1_20

What is the name of this compound?

- cyclohexane
- cyclopentane
- cyclooctane
- cycloheptane

A

MKCL OES
Online Evaluation System

Chemistry_FT_Sem

Total questions in exam: **40** | Answered: **0**

Question No. 1

What is the molecular formula of a compound that has a molar mass of 116 g/mol and its empirical formula is C_2H_5?

- C_6H_{15}
- C_2H_5
- C_8H_{20}
- C_6H_{20}

C

Question No. 3

When the substances in the equation below are at equilibrium, at pressure P and temperature T, the equilibrium can be shifted to favor the products by

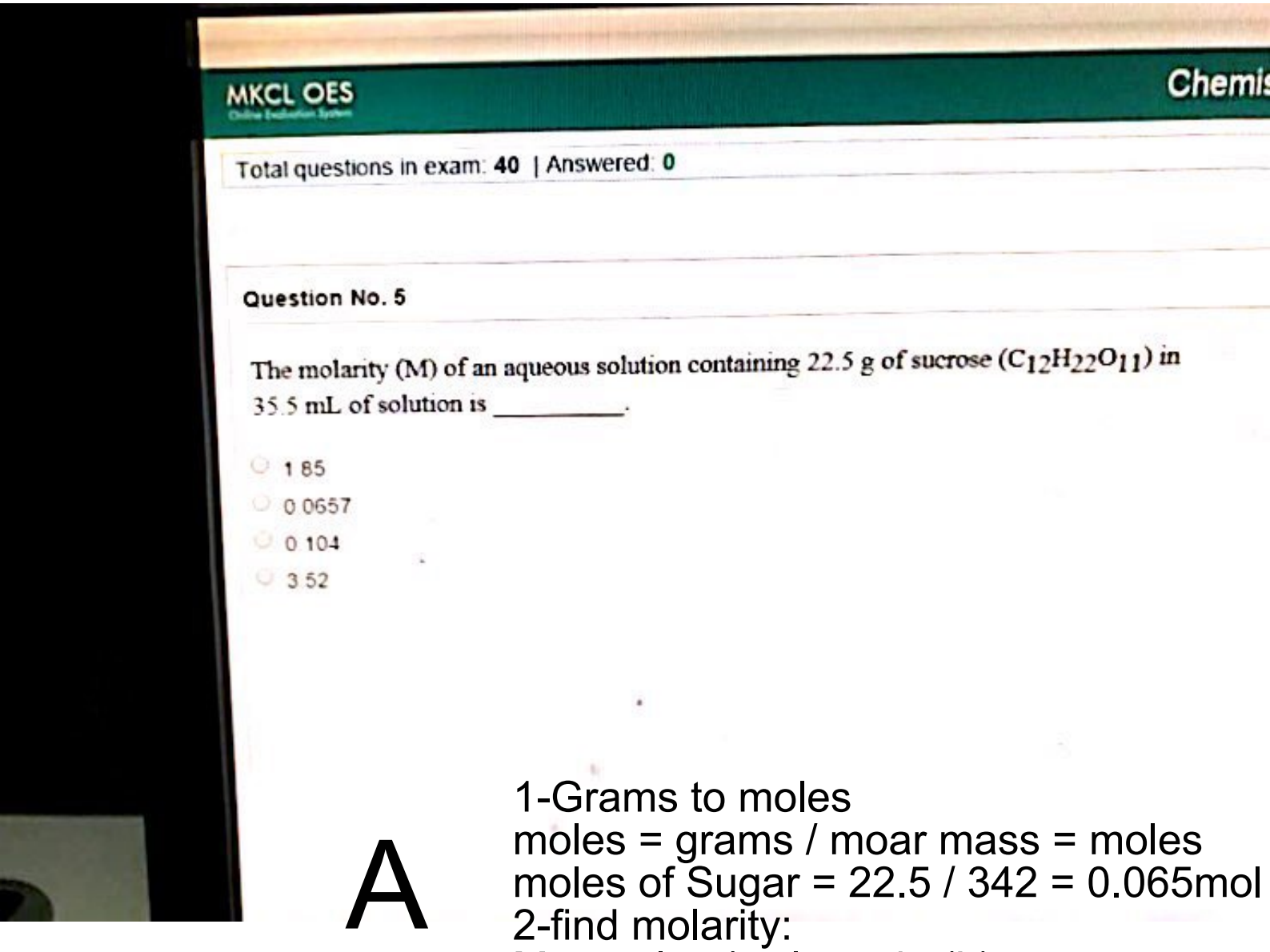
$$CuO(s) + H_2(g) \rightleftharpoons H_2O(g) + Cu(s) + Heat$$

- adding more CuO
- increasing the pressure
- decreasing the pressure
- decreasing the temperature

D

In exotheremic reaction (heat is product) when we remove heat the reaction will shift to favor the products.

Save &



A

1-Grams to moles
moles = grams / moar mass = moles
moles of Sugar = 22.5 / 342 = 0.065mol
2-find molarity:
M = moles / volume in (L)
M = 0.065 / 0.035 (ml ->L)
M = 1.85

Total questions in exam: **40** | Answered: **0**

Question No. 7

The compound NH_3 can be described as _____.

- Bronsted-Lowry acid
- Arrhenius acid
- Lewis base
- Lewis acid

C

Total questions in exam: **40** | Answered: **0**

Question No. 9

Calculate the volume (in liter) of a solution that contains 3.12 moles of NaCl if the molarity of this solution is 6.67 M NaCl

- 2.823 L
- 2.141 L
- 0.208 L
- 0.468 L

D

Volume (L) = moles / molarity

Total questions in exam: 40 | Answered: 0

Question No. 6

How many grams of CO_2 could be produced when 44 grams of C_3H_7COOH completely react with oxygen gas according to the reaction?

$$C_3H_7COOH + 5O_2 \rightarrow 4CO_2 + 4H_2O$$

- 44 g
- 22 g
- 133 g
- 88 g

D

1-Convert grams to moles
moles = grams/molar mass
moles = 44g / 88g/mol
moles = 1/2
2-Convert moles of C3H7COOH to moles of CO2
1 C3H7COOH -> 4CO2 then 4*1/2 = 2moles of CO2
3-Convert moles to grams
grams = moles * molar mass , 2 * 44 = 88g

Total questions in exam. 40 | Answered 25

Q

In the reaction:

$$Cu_{(s)} + 2Ag^{+}_{(aq)} \rightarrow Cu^{2+}_{(aq)} + 2Ag_{(s)}$$

- $Cu_{(s)}$ is the reducing agent and $Ag^{+}_{(aq)}$ is reduced.
- $Ag^{+}_{(aq)}$ is the reducing agent and $Cu_{(s)}$ is reduced.
- $Ag^{+}_{(aq)}$ is oxidizing agent and $Cu_{(s)}$ is reduced
- $Cu_{(s)}$ is the oxidizing agent and $Ag^{+}_{(aq)}$ is oxidized.

A

Cu = 0 -> Cu = 2+ (oxidized or reducing agent)
Ag = +1 -> Ag = 0 (reduced or oxidising agent)

Save & Next حفظ والتالي

Total questions in exam: **40** | Answered: **0**

Question No. 8

What is the oxidation number of iron in Fe_2O_3?

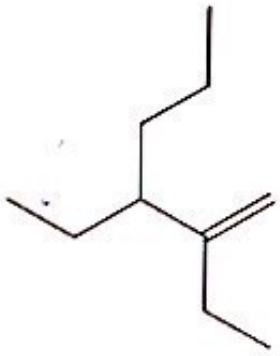
- +3
- -3
- -6
- +6

A

Total questions in exam: **40** | Answered: **0**

Question No. 12

Name the following organic compound:



- 4-ethyl-3-methyleneheptane
- 2,3-diethyl-1-hexene
- 2,3-diethyl-1-hexyne
- 2-ethyl-3-propyl-1-pentene

B

MKCL OES
Online Evaluation System

Total questions in exam: **40** | Answered: **0**

Question No. 25

What is the term for the pairs of valence electrons that are not shared in a molecule?

- core electrons
- bonding electrons
- lone pairs of electrons
- sharing electrons

C

Total questions in exam: 40 | Answered: 0

Question No. 1

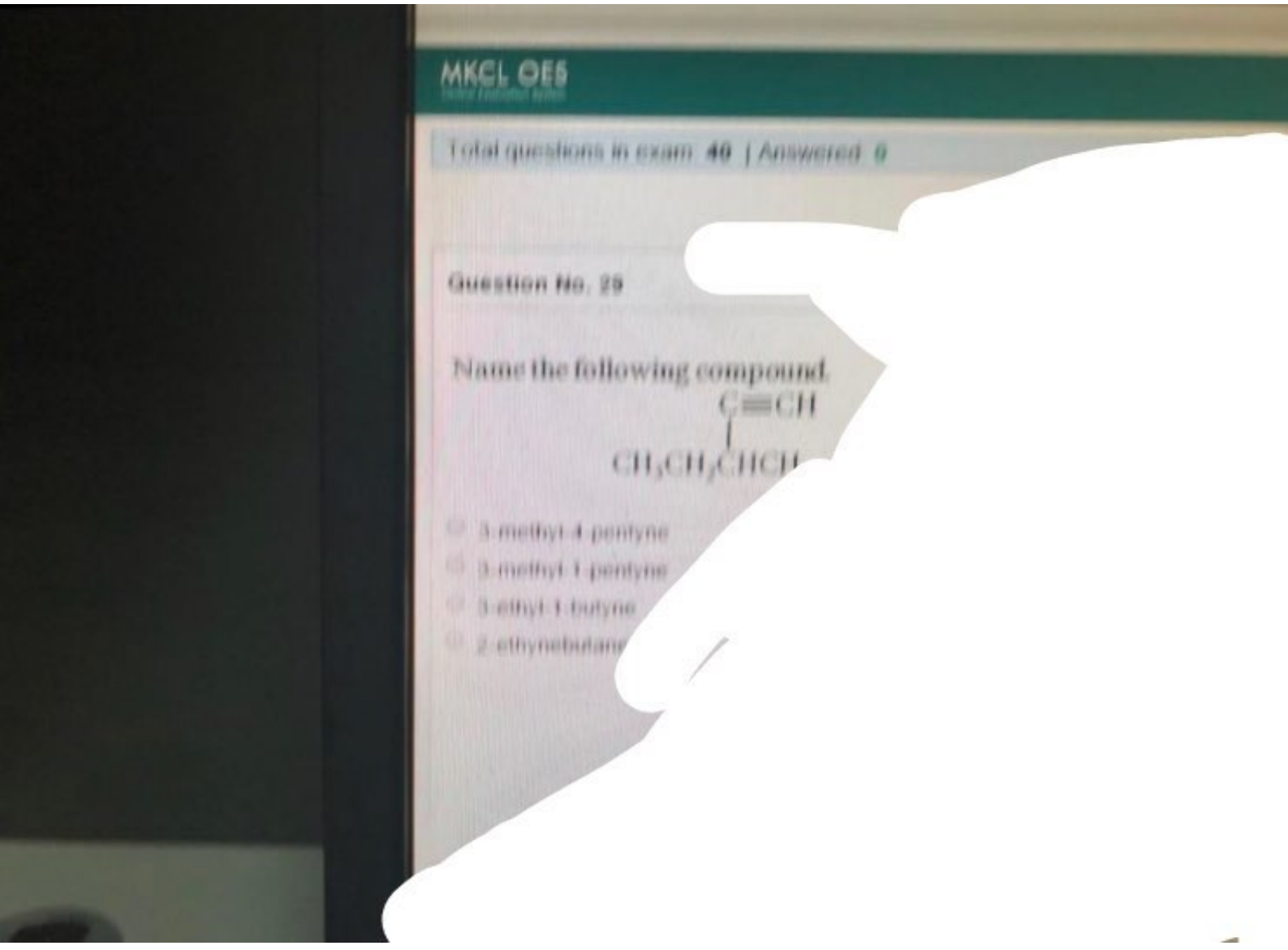
How many moles of CO_2 could be produced when 168 grams of C_6H_{12} completely react with oxygen gas according to the reaction?

$$C_6H_{12} + 9O_2 \rightarrow 6CO_2 + 6H_2O$$

- 4 mol
- 10 mol
- 6 mol
- 12 mol

D

Save & Next



3-methyl-1-pentyne

Question No.

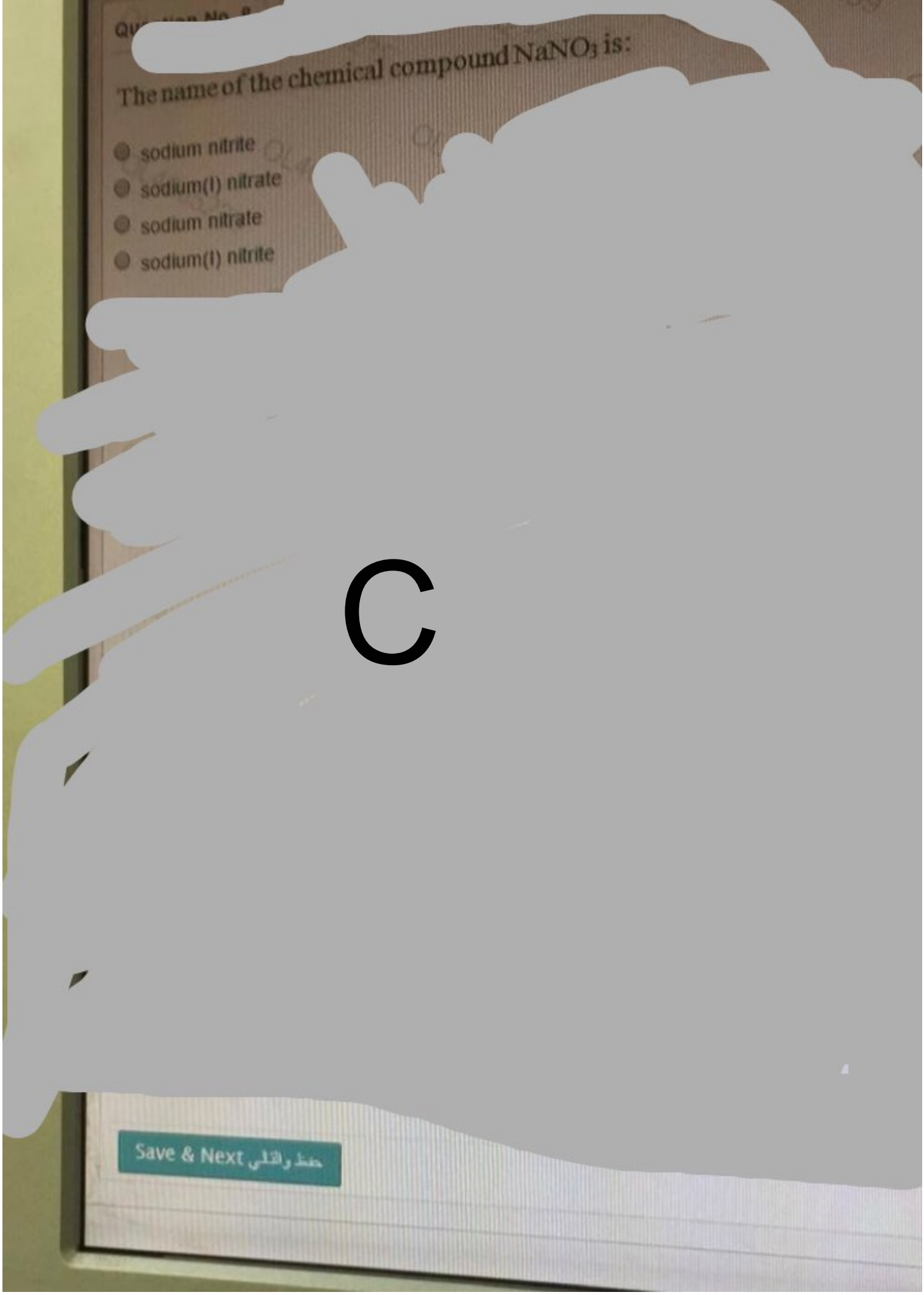
What is the name of the following alkyl group: CH_3-CH_2–?

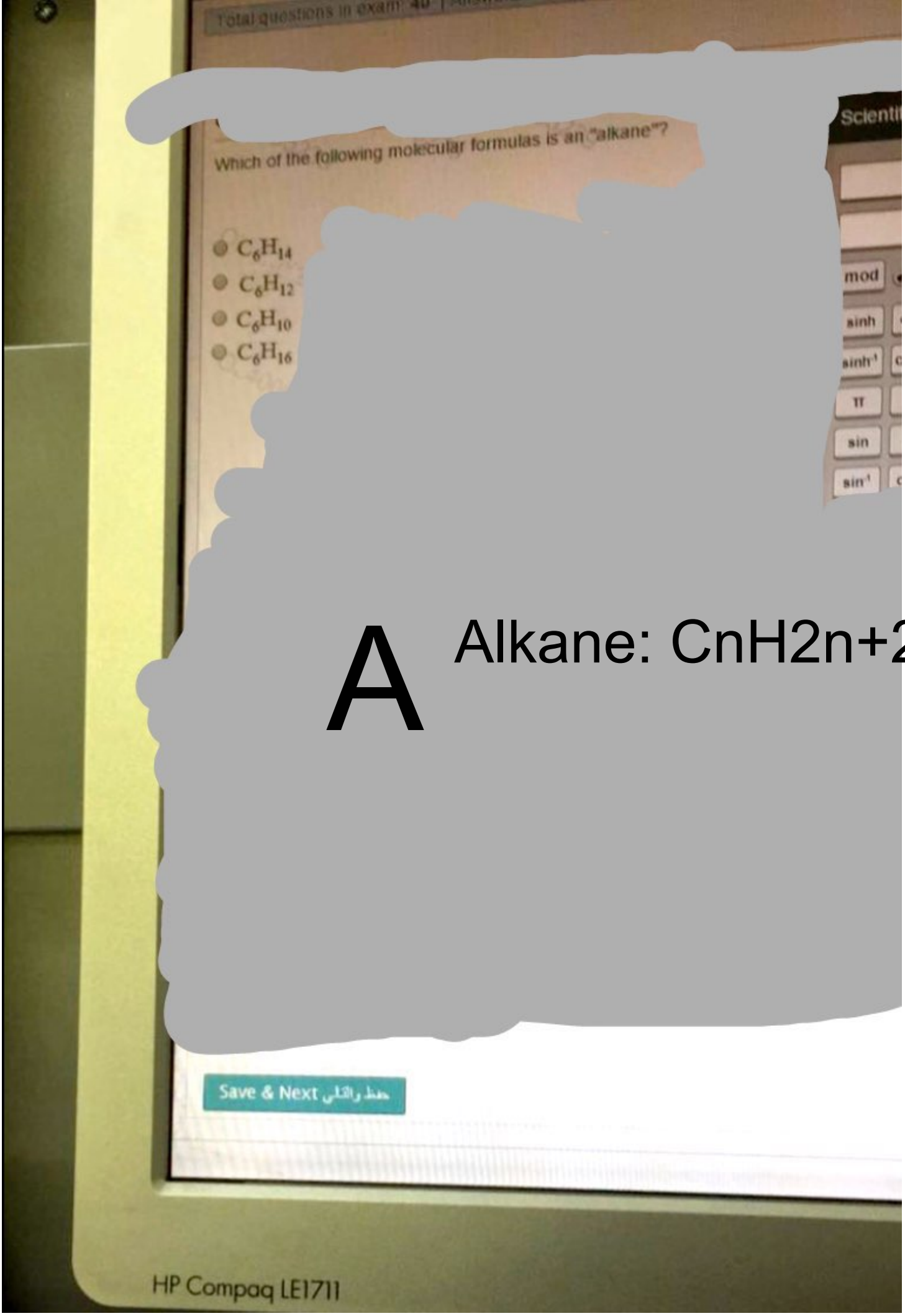
- methyl
- isopropyl
- ethyl
- propyl

C

CH3: methyl
CH3CH2: ethyl
CH3CH2CH2: propyl

Save & Next حفظ والتالي





MKCL OES
Online Evaluation System

Total questions in exam: **40** | Answered: **0**

Question No. 23

Which of the following molecular formulas corresponds to an "alkane"?

- C_5H_{10}
- C_5H_8
- C_5H_{12}
- C_5H_{14}

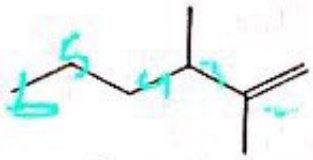
C

Alkane: CnH2n+2
Alkene: CnH2n
Alkyne: CnH2n-2

Total questions in exam: **40** | Answered: **0**

Question No. 15

Provide the name of the compound below.



A

- 2,3-dimethyl-1-hexene
- 2,3-dimethyl-2-hexene
- 4,5-dimethyl-5-hexene
- 4,5-dimethyl-6-hexene

2-3dimethyl-1-hexene

Total questions in exam: **40** | Answered: **0**

Question No. 7

The compound NH_3 can be described as _____.

- Bronsted-Lowry acid
- Arrhenius acid
- Lewis base
- Lewis acid

C

Total questions in exam: **40** | Answered: **0**

Question No. 26

The mass percent composition of sulfur in H_2S is:

- 32.7%
- 22.7%
- 94.1%
- 5.9%

C

Percent of S = molar mass of S/ total molar mass *100

H2S = 34g/mol
S = 32g/mol
Percent = 32/34 * 100 = 94,1%

MKCL OES
Online Evaluation System

Chemistry_FT_Sem

Total questions in exam: **40** | Answered: **0**

Question No. 1

What is the molecular formula of a compound that has a molar mass of 116 g/mol and its empirical formula is C_2H_5?

- C_6H_{15}
- C_2H_5
- C_8H_{20}
- C_6H_{20}

C

MKCL OES
Online Evaluation System

Total questions in exam: **40** | Answered: **0**

Question No. 25

What is the term for the pairs of valence electrons that are not shared in a molecule?

- core electrons
- bonding electrons
- lone pairs of electrons
- sharing electrons

C

MKCL OES
Online Evaluation System

Chemis

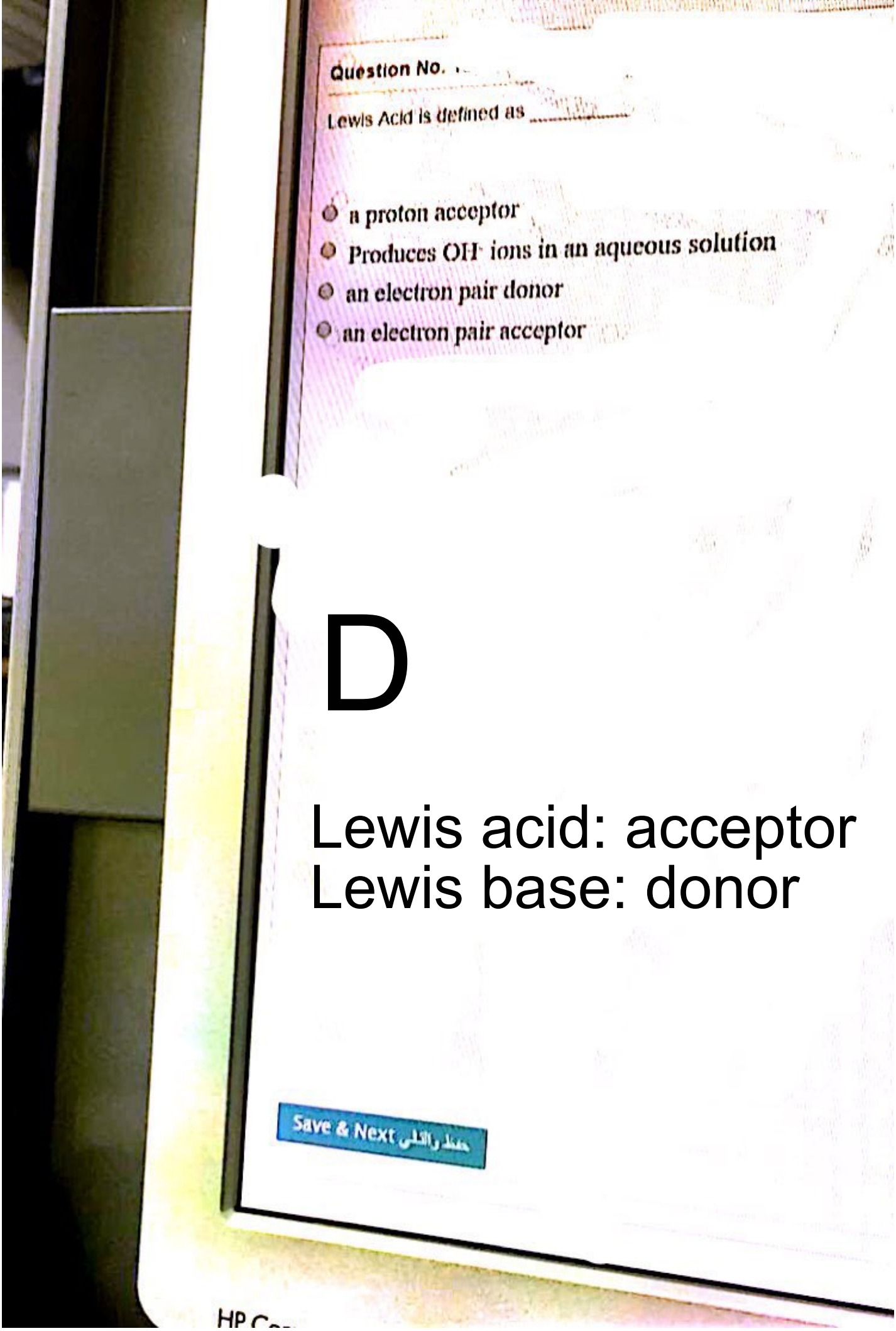
Total questions in exam: **40** | Answered: **0**

Question No. 5

The molarity (M) of an aqueous solution containing 22.5 g of sucrose ($C_{12}H_{22}O_{11}$) in 35.5 mL of solution is _____.

- 1 85
- 0 0657
- 0 104
- 3 52

A



MKCL OES
Online Evaluation System

Chemistry_FT

Total questions in exam: **40** | Answered: **0**

Question No. 24

What is the final molarity of H_3BO_3 solution, if 110 mL of 4M H_3BO_3 was diluted to a final volume of 0.3 L?

- 1.78 M
- 1.47 M
- 2.13 M
- 1.97 M

B

$M_2 = M_1V_1/V_2$

Question No. 20

Calculate the mass of 500 atoms of iron (Fe).

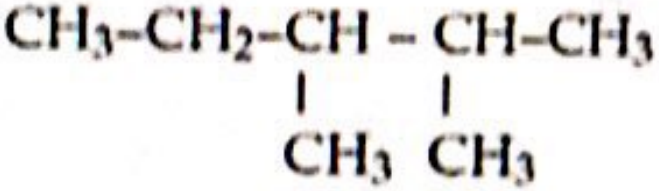
- 56 g Fe
- 6.02×10^{23} g Fe
- 1.22 g Fe
- 4.64×10^{-20} g Fe

D

Moles of atoms = atoms / (6.022 *10^23)
Grams = moles * molar mass

Question No. 21

What is the IUPAC name for the following?



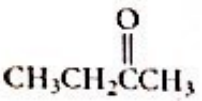
- isoheptane
- heptane
- 2,3-dimethylpentane
- 2-methyl-3-methylpentane

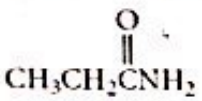
C

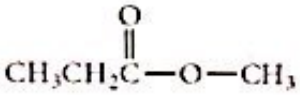
Total questions in exam: **40** | Answered: **0**

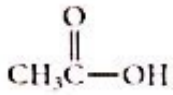
Question No. 13

Which of the following compounds is an ester?









Save & Next

Ester: COOC

C

Total questions in exam: 40 | Answered: 0

Question No. 14

What is the name of compound has the following general formula?

- carboxylic acid
- aldehyde
- ketone
- ester

C Ketones: R-CO-R

Total questions in exam: **40** | Answered: **0**

Question No. 22

The name of the chemical compound Cu_2CO_3 is:

- copper(II) carbonate
- copper(III) carbonate
- copper(I) carbonate
- copper carbonate

C

Que

What is the name of the following alkyl group: CH_3-CH_2–?

- methyl
- isopropyl
- ethyl
- propyl

C

Save & Next حفظ والتالي

Total questions in exam: **40** | Answered: **0**

Question No. 9

Calculate the volume (in liter) of a solution that contains 3.12 moles of NaCl if the molarity of this solution is 6.67 M NaCl

- 2.823 L
- 2.141 L
- 0.208 L
- 0.468 L

D

Volume (L) = moles / molarity

Total questions in exam: 40 | Answered: 0

Question No. 6

How many grams of CO_2 could be produced when 44 grams of C_3H_7COOH completely react with oxygen gas according to the reaction?

$$C_3H_7COOH + 5O_2 \rightarrow 4CO_2 + 4H_2O$$

- 44 g
- 22 g
- 133 g
- 88 g

D

MACL OES

Chemistry_FT

Total questions in exam: 40 | Answered: 26

Question No. 8

In the reaction below, what is the theoretical yield in moles for NO when 5 moles of NH_3 react with 6 moles of O_2?

$$4\,NH_3 + 5\,O_2 \rightarrow 4\,NO + 6\,H_2O$$

- 5.0 mol
- 2.4 mol
- 3.6 mol
- 4.8 mol

A Limiting reactant

MKCL OES
Online Evaluation System

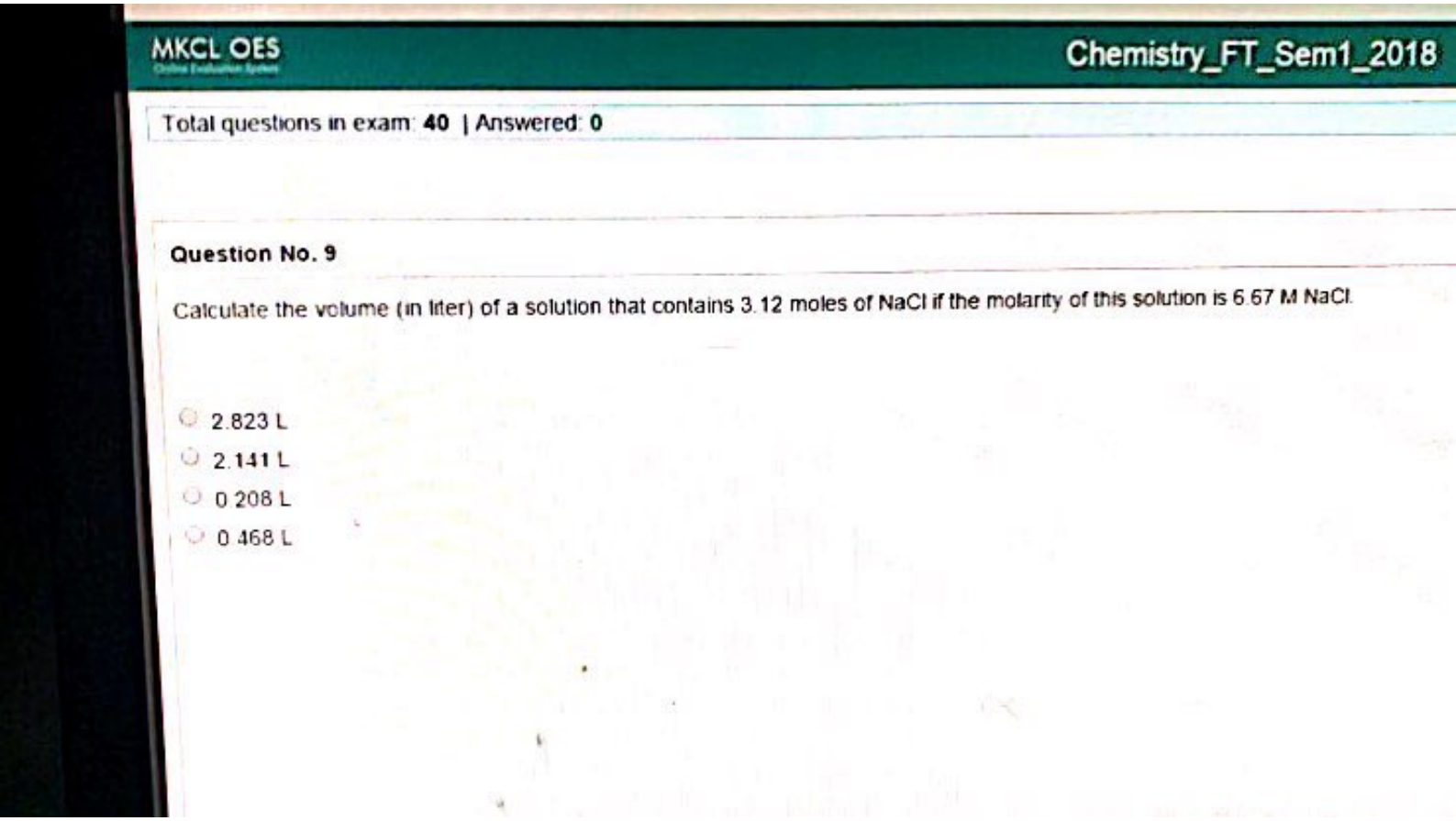
Total questions in exam: 40 | Answered: 6

Question No. 13

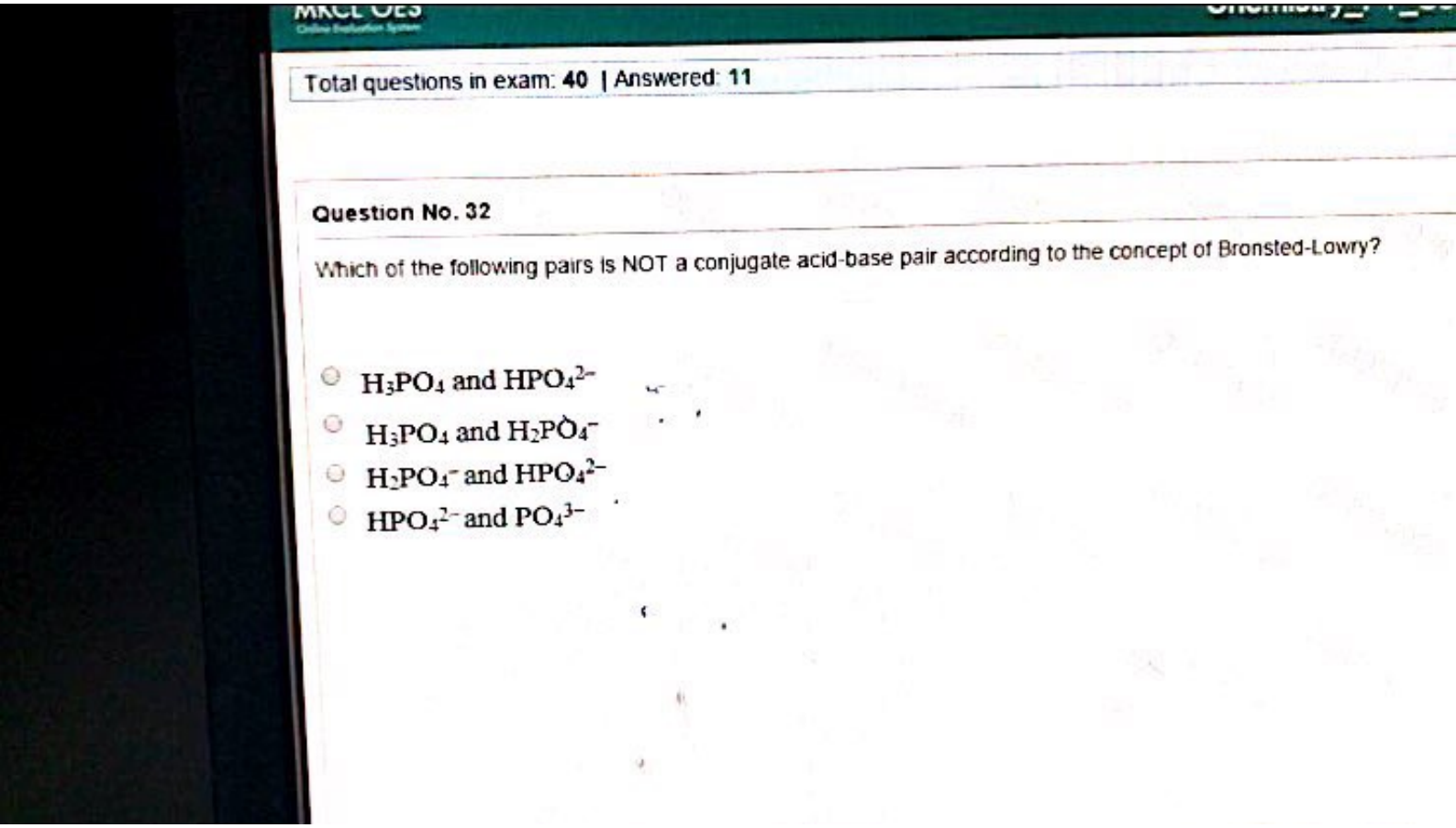
The molar mass of $Ca(OH)_2$ is equal to:

- 57 g/mol
- 68 g/mol
- 74 g/mol
- 38 g/mol

C



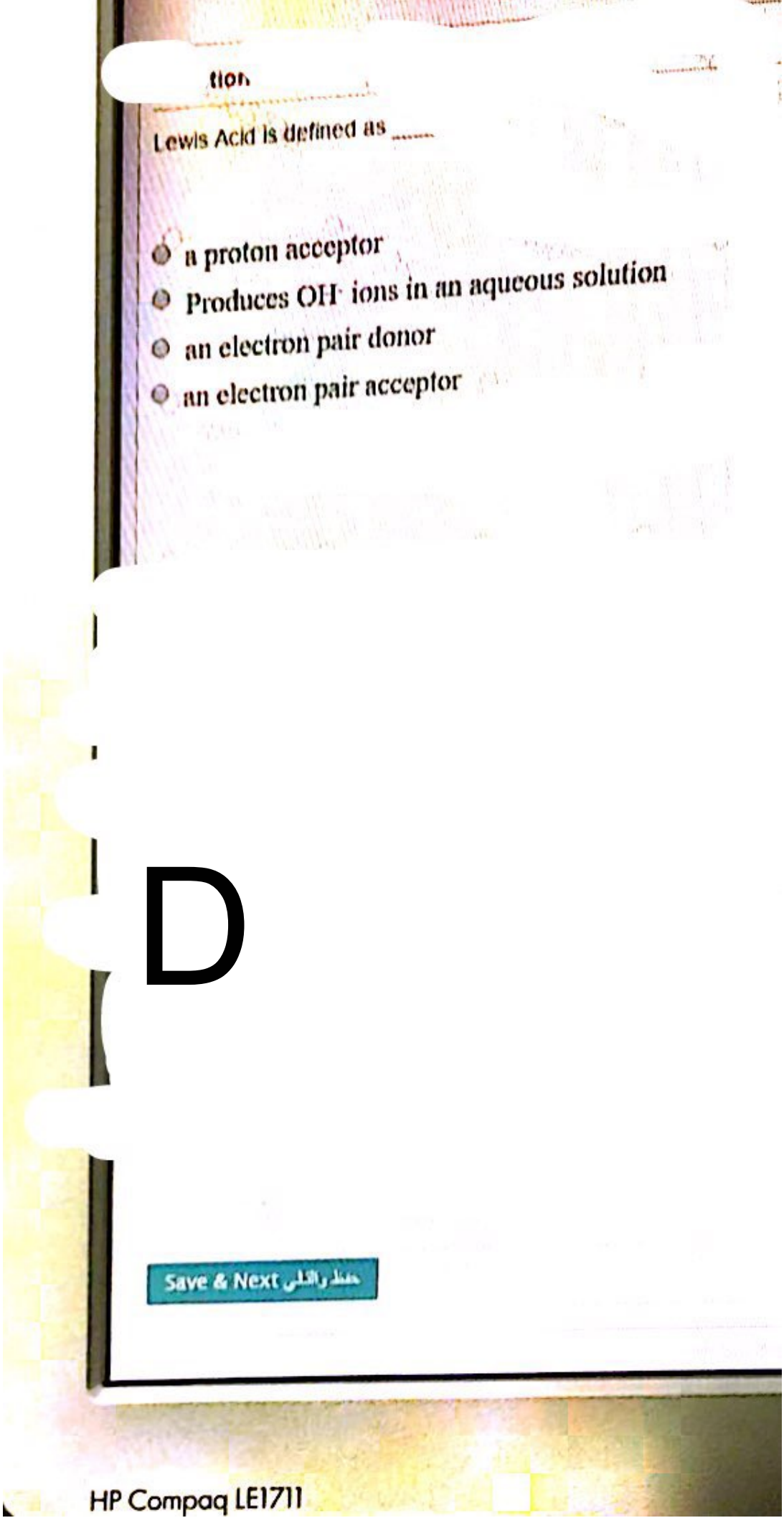
D

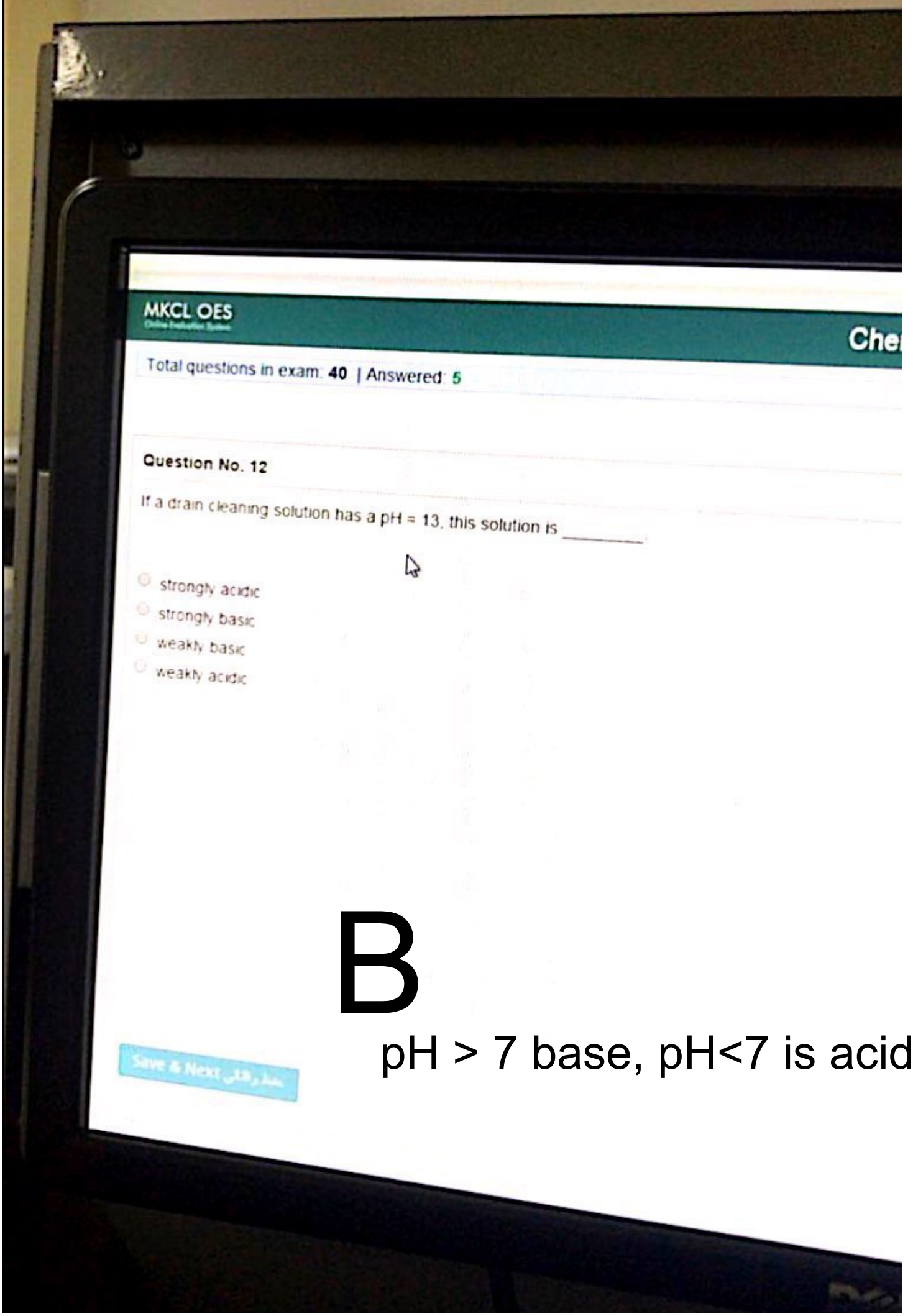


A

Conjugate base or acid should be less than or more than only 1 H atom

Type t





B

pH > 7 base, pH<7 is acid

Question No.

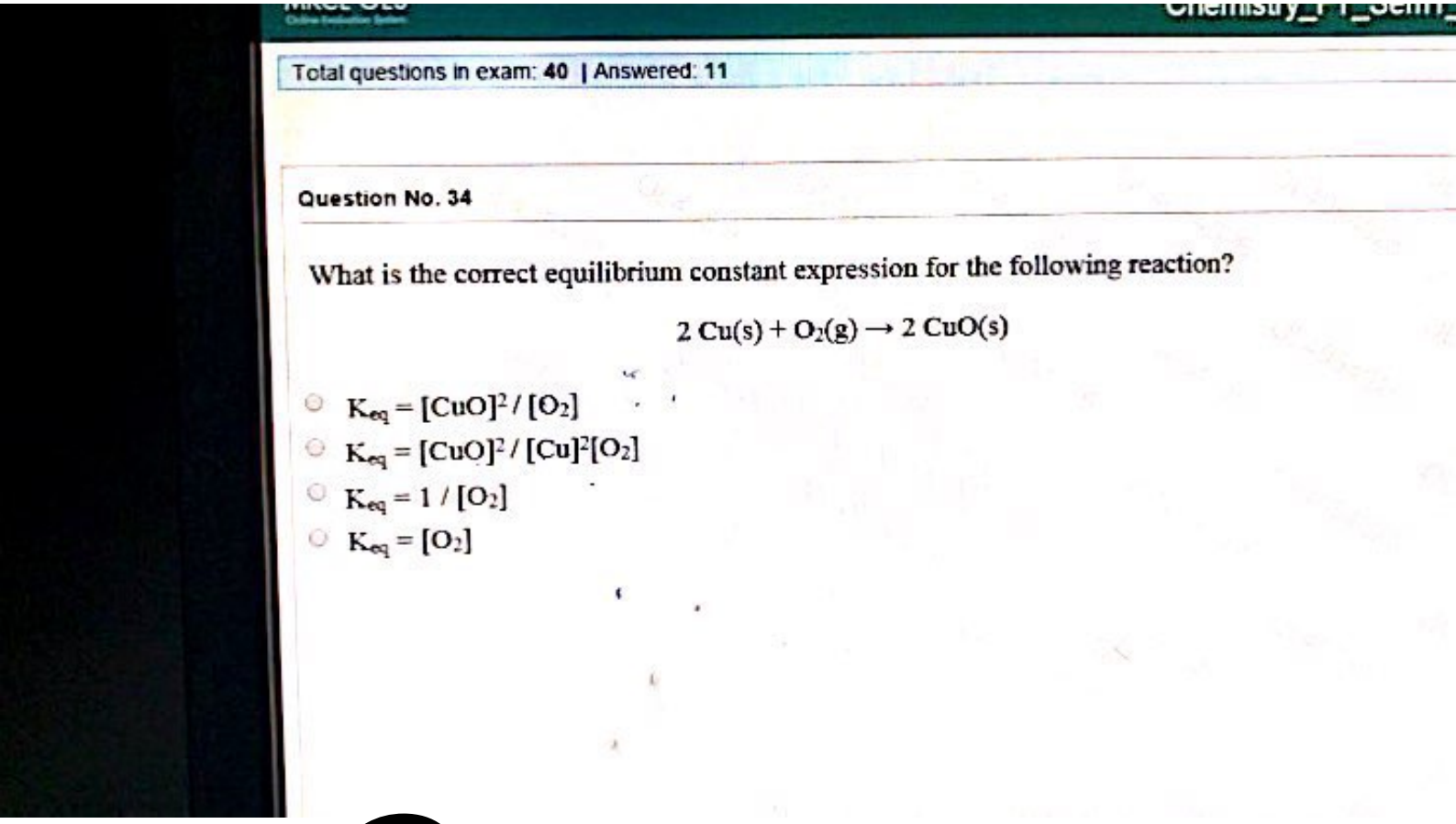
The correct name for the compound CO is _____

- carbon monoxide
- carbon oxide
- monocarbon monoxide
- carbon dioxide

A

Save & Next حفظ والتالي

HP Compaq LE1711



C

Keq = [products]/[reactants]
Solids are EXCLUDED

Total questions in exam: 40 | Answered: 0

Question No. 27

After a chemical reaction reaches equilibrium, _____

- The amount of products is decreasing.
- The amount of products is increasing.
- The amount of reactants and products are constant.
- The amount of reactants and products are equal.

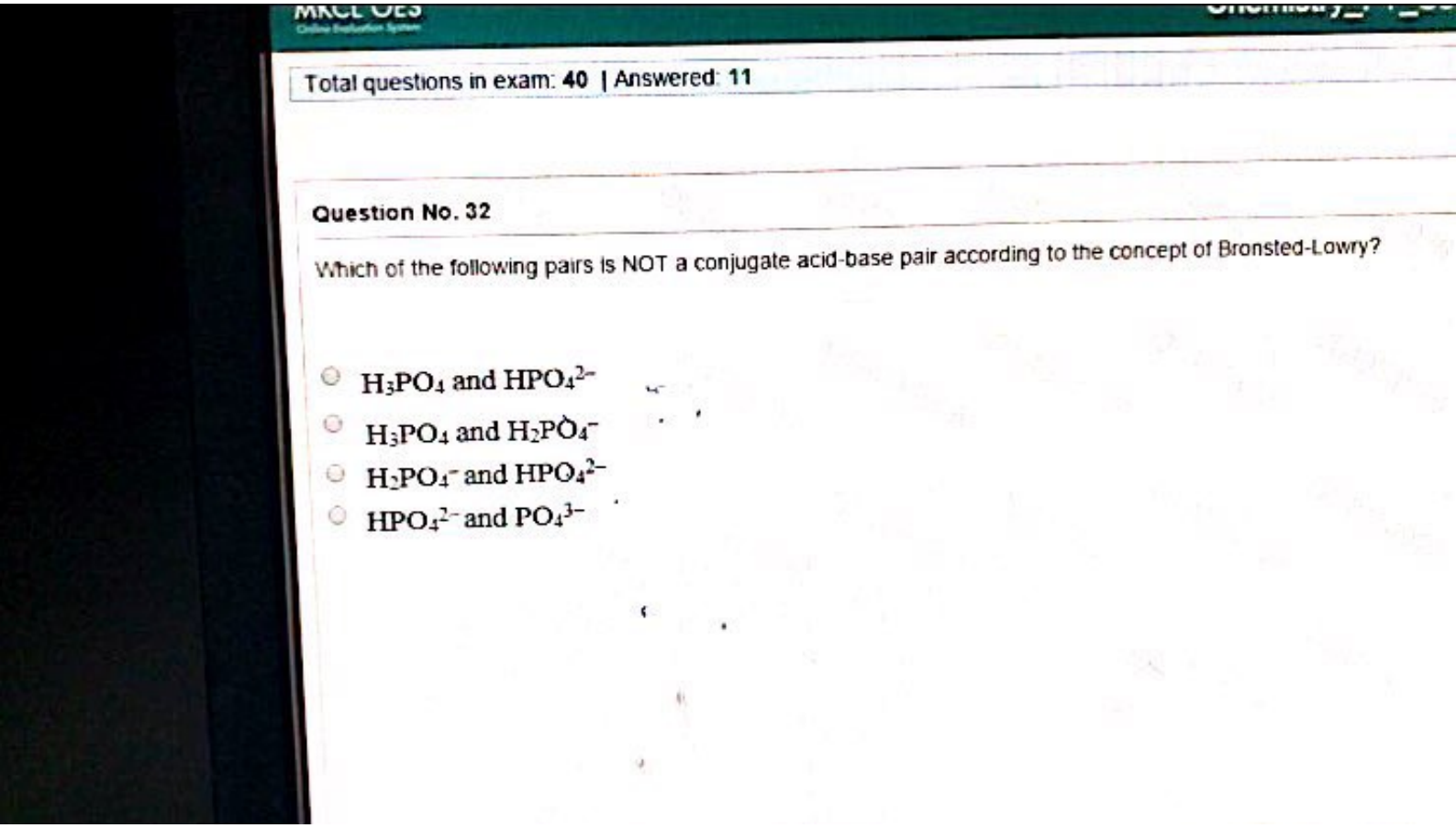
C

Question No. 20

Calculate the mass of 500 atoms of iron (Fe).

- 56 g Fe
- 6.02×10^{23} g Fe
- 1.22 g Fe
- 4.64×10^{-20} g Fe

D



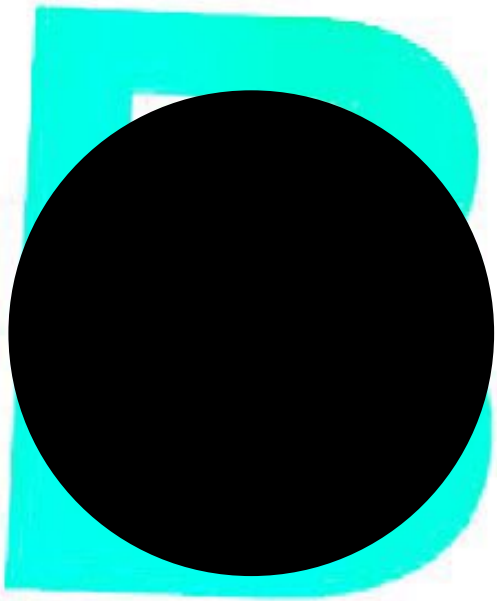
A

Total questions in exam: **40** | Answered: **0**

Question No. 22

The name of the chemical compound Cu_2CO_3 is:

- copper(II) carbonate
- copper(III) carbonate
- copper(I) carbonate
- copper carbonate



C

MKCL OES

Chemistry_F

Total questions in exam: 40 | Answered: 11

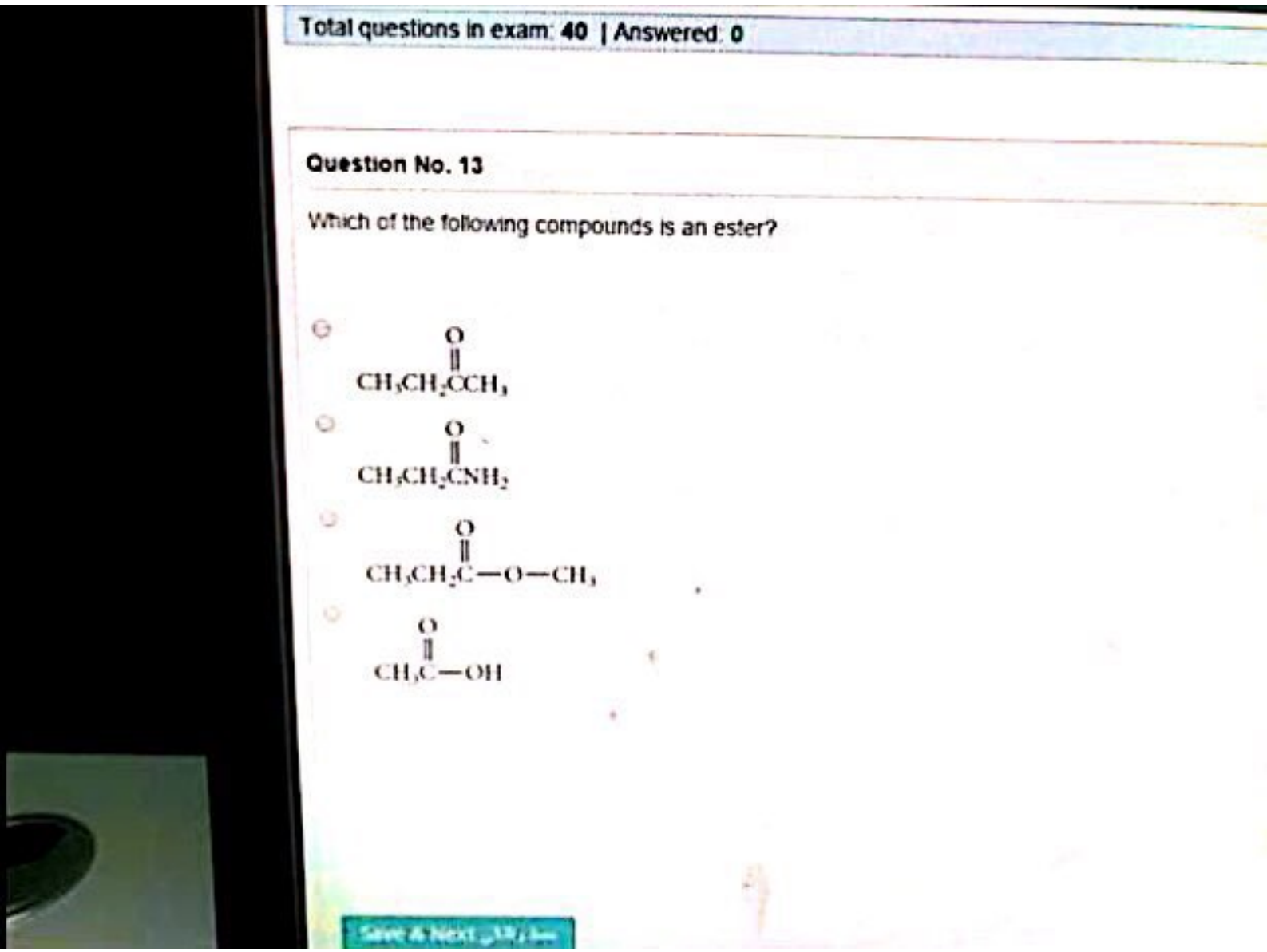
Question No. 14

The following structure corresponds to a ..... alcohol.

- Primary
- Tertiary
- Quaternary
- Secondary

B

Save & Next

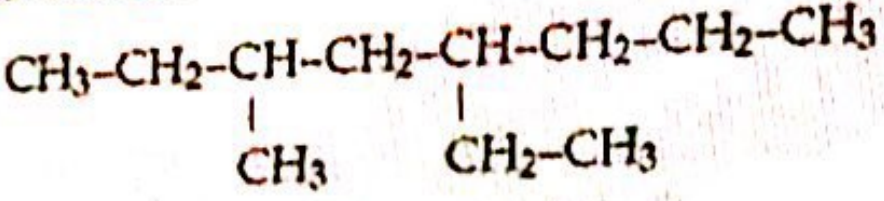


C

Ester: COOC

Question No. 2

What is the IUPAC name for the following?



- 4-ethyl-6-methyloctane
- 3-ethyl-5-methyloctane
- isooctane
- 5-ethyl-3-methyloctane

D

Question No. 1

How many moles of CO_2 could be produced when 1.8×10^{24} molecules c react with oxygen gas according to the reaction?

$$C_3H_6O + 3O_2 \rightarrow 2CO_2 + 3H_2O$$

- 2 mol
- 6 mol
- 4 mol
- 8 mol

Save & Next حفظ والتالي

Total questions in exam: **40** | Answered: **0**

Question No. 7

The compound NH_3 can be described as _____.

- Bronsted-Lowry acid
- Arrhenius acid
- Lewis base
- Lewis acid

C

Type text here

Question No. 11

In the "Basic" solutions, _____

- $pH < 7$ and $[H_3O^+] > 10^{-7}$ M
- $pH = 7$ and $[H_3O^+] = 10^{-7}$ M
- $pH > 7$ and $[H_3O^+] > 10^{-7}$ M
- $pH > 7$ and $[H_3O^+] < 10^{-7}$ M

D

Question No. 3

What is the oxidation number of nitrogen in NO_3^{-1}?

- 0
- -3
- -5
- +5

D

Save & Next حفظ والتالي

MKCL OES

Chemistry_FT_Sem1_2018

Total questions in exam: 40 | Answered: 39

Question No: 33

What is the molarity of $FeCl_3$ in a solution prepared by dissolving 10.0 g of $FeCl_3$ in enough water to make 275 mL of solution?

- 0.224 M
- 4.46 M
- 4.46×10^{3} M
- 2.24×10^{-4} M

A

Save & Next

Question No. 5

How many lone pairs of electrons are on the P atom in PF

- 3 pairs
- 1 pair
- 2 pairs
- 0 pairs

B

Question No. 11

What is the correct equilibrium constant expression for the following reaction?

$$2\ Cu(s) + O_2(g) \rightarrow 2\ CuO(s)$$

- $K_{eq} = 1 / [O_2]$
- $K_{eq} = [CuO]^2 / [O_2]$
- $K_{eq} = [O_2]$
- $K_{eq} = [CuO]^2 / [Cu]^2[O_2]$

A

Save & Next حفظ والتالي

Total questions in exam: 40 | Answered: 0

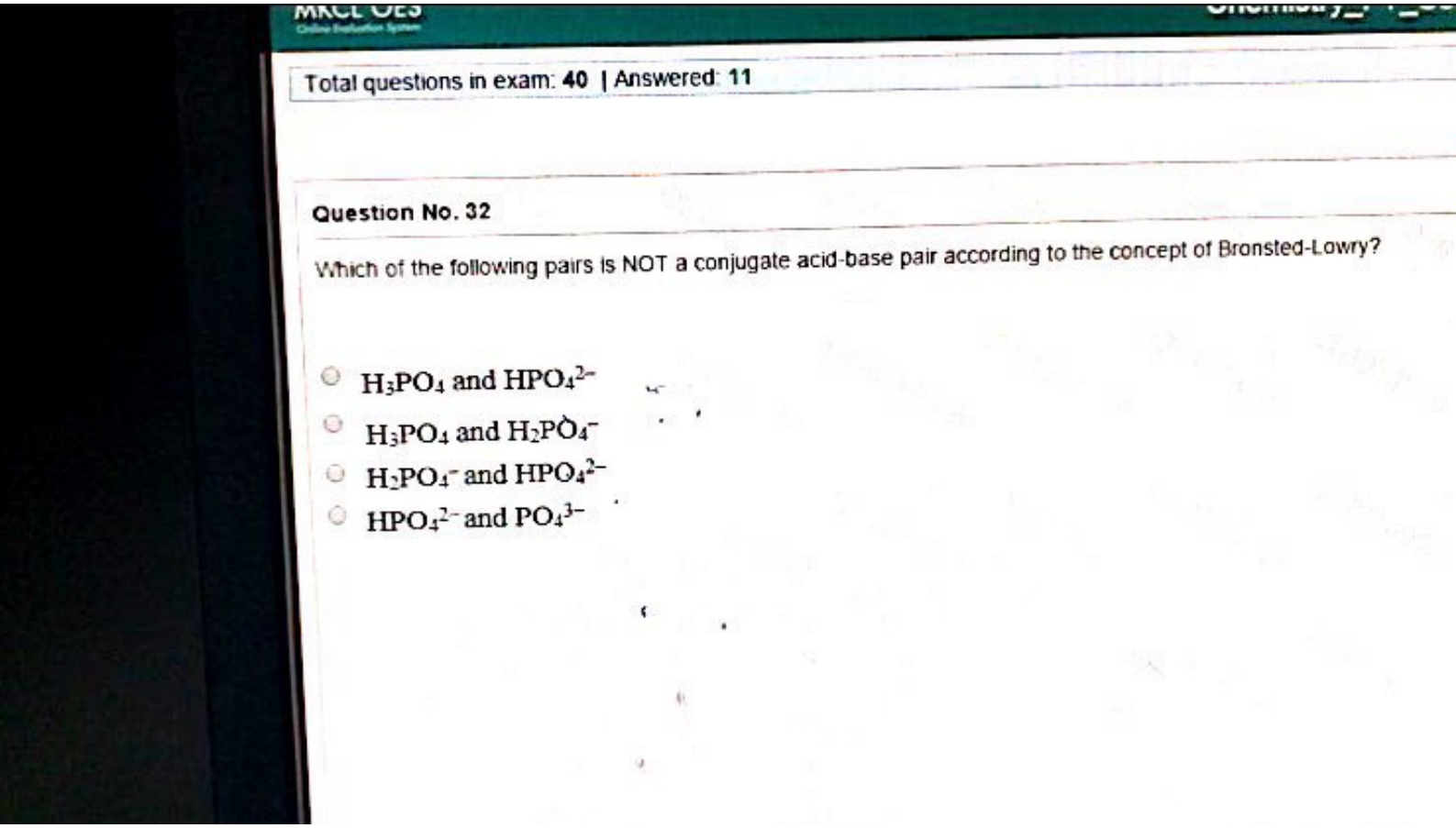
Question No. 8

What is the oxidation number of iron in Fe_2O_3?

- +3
- -3
- -6
- +6

A

Fe2O3
O = -2, Fe = +3



A

Question No. 4

What is the IUPAC name for CH_3-CH_2-C≡CH?

- 3-butyne
- 1-butyne
- 2-butyne
- butyne

B

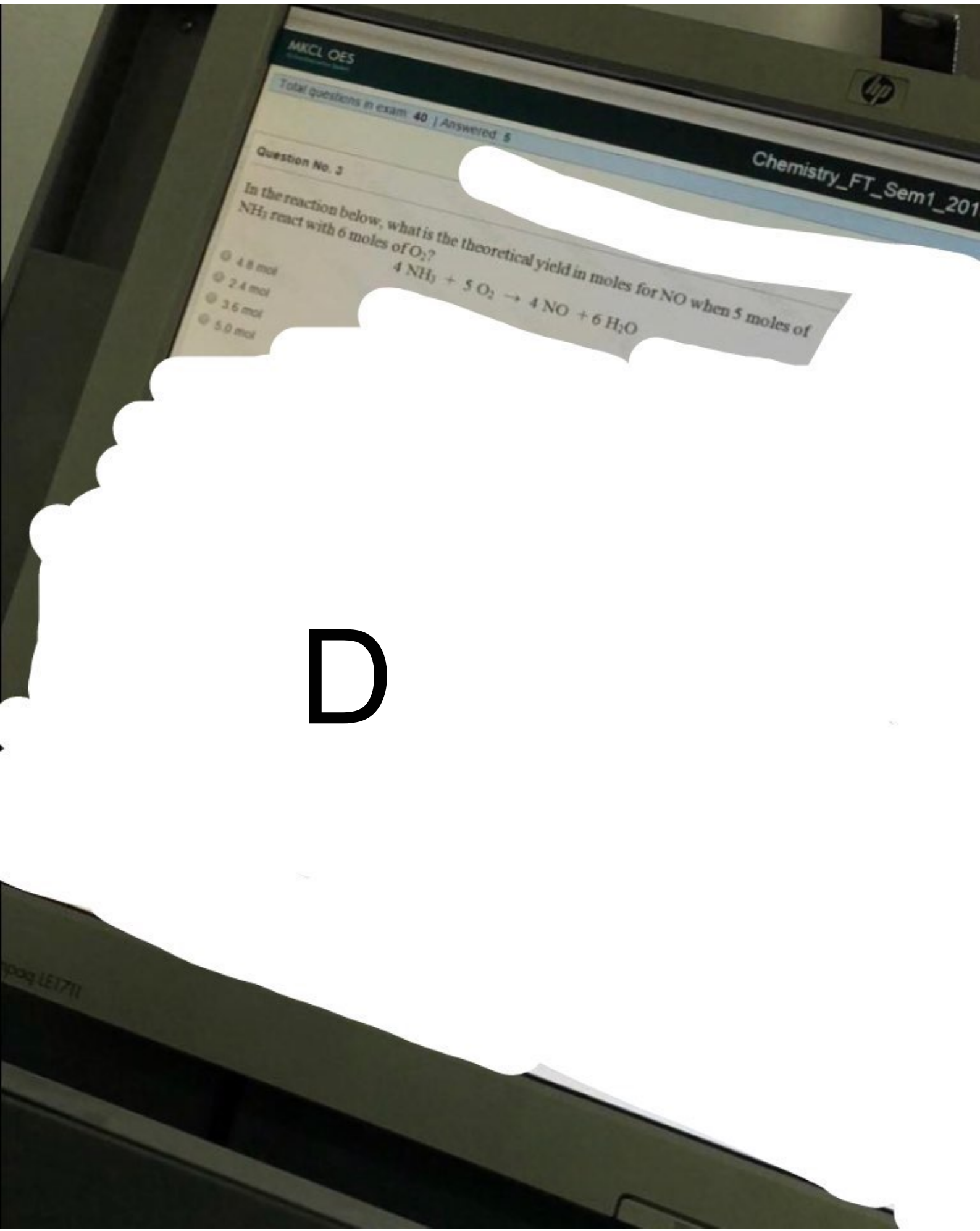
What is the oxidation number of nitrogen in NO_3^{-1}?

- 0
- -3
- -5
- +5

D

NO3 = -1
N + (-2*3)=-1
N-6 = -1
N = +5

Save & Next حفظ والتالي



D

Total questions in exam: 40 | Answered: 4

Question No. 6

Consider the following reaction at equilibrium. Adding more oxygen will _____

$$2SO_2(g) + O_2(g) \rightleftharpoons 2SO_3(g)$$

- shift the reaction to the right
- have no effect
- shift the reaction to the left
- cannot be determined, since the temperature is unknown

A

Save & Next حفظ والتالي

MKCL OES

Total questions in exam: 40 | Answered: 3

Question No. _____

If a saliva sample has a pH = 7.5, the solution is _____

- strongly acidic
- weakly basic
- weakly acidic
- neutral

B

Save & Next جمع و تالي

MKCL OES

Total questions in exam: 40 | Answered: 3

Question No. 1

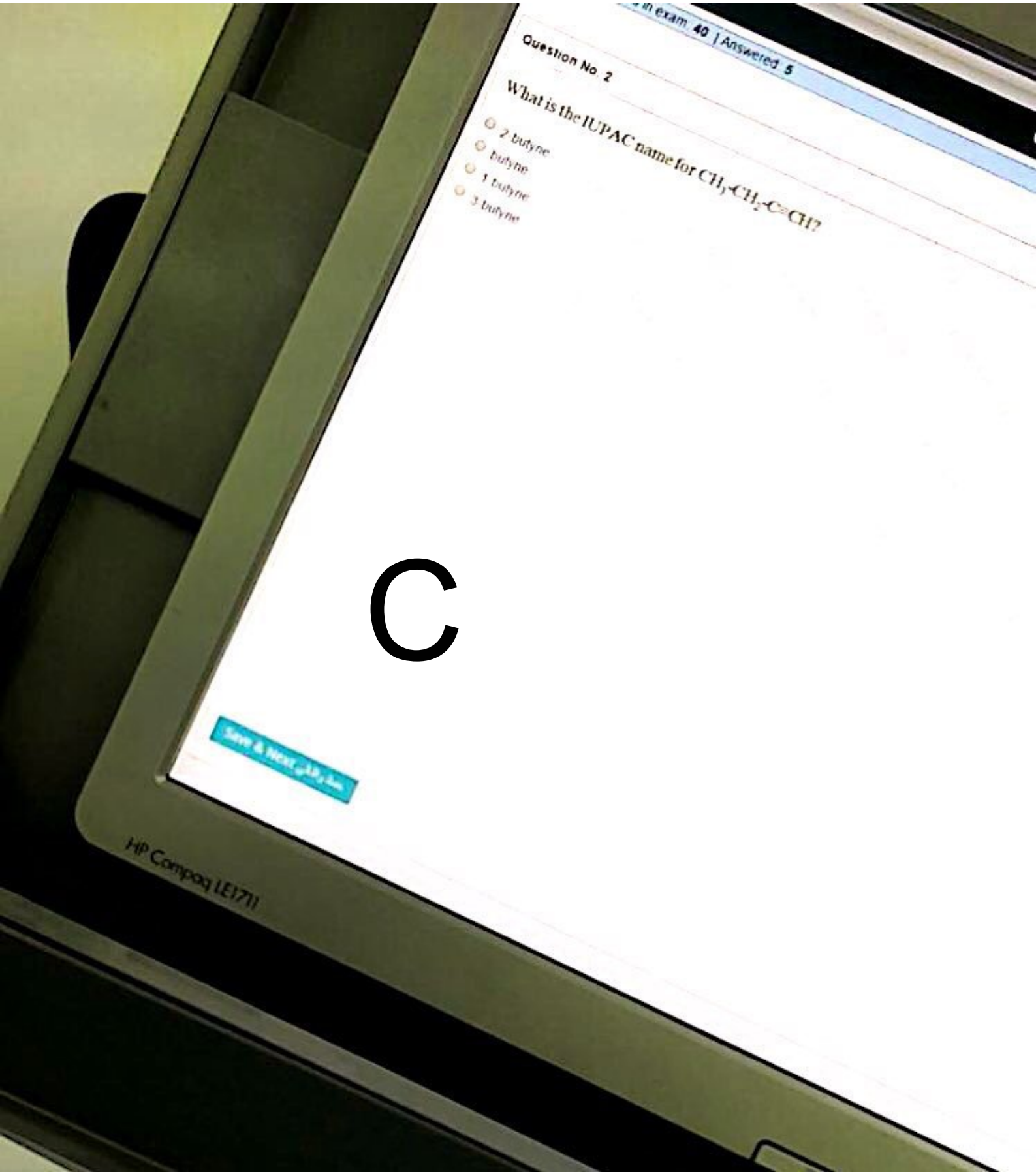
The correct name for the acid HF is _____ acid

- hydrofluoric
- hydrogen fluorate
- hydrogen fluorine
- hydrogen fluoride

A

Save & Next

HP Compaq LE1711



MKCL OES

Chemi

Total questions in exam: 40 | Answered: 3

Question No. 2

How many moles of $(NH_4)_2S$ are there in 75 g of $(NH_4)_2S$?

- 1.1
- 1.9
- 3.4
- 7.5

A

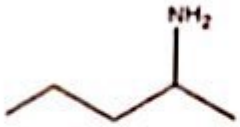
Save & Next

HP Compaq LE1711

Total questions in exam: 40 | Answered: 3

Question No. 3

Identify the functional group:



- amine
- amide
- carboxylic acid
- ketone

A

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HP Compaq LE1711

Question No. 5

The name of the chemical compound CuI_2 is:

- Copper(II) iodide
- Copper(III) iodide
- Copper(I) iodide
- Copper iodide

A

Save & Next حفظ والتالي

Total questions in exam 40 | Answered 3

Question No. 4

In an oxidation-reduction reaction, the oxidized substance always _____

- shows loss of electrons
- shows gain of neutrons
- gives up hydrogen atoms
- shows gain of electrons

A

Save & Next

HP Compaq LE1711

Question No. 7

The oxidation number of phosphorus in PF_3 is _____.

- -5
- +5
- -3
- +3

D

Save & Next حفظ والتالي

MKCL OES

Chemi

Total questions in exam: 40 | Answered: 3

Question No. 2

How many moles of $(NH_4)_2S$ are there in 75 g of $(NH_4)_2S$?

- 1.1
- 1.9
- 3.4
- 7.5

A

Save & Next

HP Compaq LE1711

Question No. 33

The oxidation number of iodine in KIO_4 is

(1) +1

(2) -1

(3) -7

(4) +7

D

Question No. 5

Which of the changes listed below will shift the equilibrium position to the *right* for the following reversible reaction?

$$CH_4(g) + H_2O(g) + \text{heat} \rightleftarrows CO(g) + 3\ H_2(g)$$

- A decrease of volume
- A decrease of $[CH_4]$
- A decrease of temperature
- A decrease of $[CO]$

D

Question No. 1

Consider the reaction: $2\ SO_2(g) + O_2(g) \leftrightarrow 2\ SO_3(g)$

If, at equilibrium at a certain temperature, $[SO_2] = 1.50$ M, $[O_2] = 0.120$ M, and $[SO_3] = 1.25$ M, what is the value of the equilibrium constant K_{eq}?

- 5.79
- 8.68
- 0.14
- 6.94

A

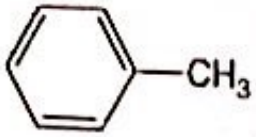
Keq = [products]/[reactants]
Keq = [SO3]^2 / [SO2]^2 [O2]

Save & Next حفظ والتالي

Total questions in exam: 40 | Answered: 0

Question No. 1

What is the name of compound shown below?



- benzene
- phenol
- toluene
- aniline

C

Total questions in exam: **40** | Answered: **0**

Question No. 5

Which of the changes listed below will shift the equilibrium position to the *ri*
the following reversible reaction?

$$CH_4(g) + H_2O(g) + \text{heat} \rightleftarrows CO(g) + 3\ H_2(g)$$

- A decrease of volume
- A decrease of $[CH_4]$
- A decrease of temperature
- A decrease of $[CO]$

D

Total questions in exam: **40** | Answered: **12**

Question No. 23

Which of the following symbols indicates a solid substance in a chemical equation?

- (s)
- (l)
- (g)
- (aq)

A

Total questions in exam: **40** | Answered: **0**

Question No. 2

Which of the following expression symbols is used for quantifying acidity and basicity?

- aH
- bH
- eH
- pH

D

Question No. 5

Which of the changes listed below will shift the equilibrium position to the *right* for the following reversible reaction?

$$CH_4(g) + H_2O(g) + \text{heat} \rightleftarrows CO(g) + 3\ H_2(g)$$

- A decrease of volume
- A decrease of $[CH_4]$
- A decrease of temperature
- A decrease of $[CO]$

D

Question No. 10

Dinitrogen tetraoxide decomposes to produce nitrogen dioxide. Calculate the equilibrium constant for the reaction given the equilibrium concentrations at 100 °C:
$[N_2O_4] = 0.60\ M$ and $[NO_2] = 1.00\ M$.

$$N_2O_4(g) \rightleftarrows 2\,NO_2(g)$$

- $K_c = 2.00$
- $K_c = 0.500$
- $K_c = 0.625$
- $K_c = 1.67$

D

Total questions in exam: **40** | Answered: **12**

Question No. 32

What is the charge on Fe in FeO?

- 2-
- 1+
- 2+
- 3+

C

FeO = 0
O = -2
Fe -2 = 0
Fe = +2

Total questions in exam: 40 | Answered: 12

Question No. 17

If 148.9 g of KCl are dissolved in enough water to make 4 L of solution, what is the molarity of this solution?

- 0.5 M
- 1.8 M
- 2.3 M
- 2.0 M

A

Total questions in exam: **40** | Answered: **12**

Question No. 33

The oxidation number of iodine in KIO_4 is

- +1
- -1
- -7
- +7

D

Total questions in exam: **40** | Answered: **12**

Question No. 23

Which of the following symbols indicates a solid substance in a chemical equation?

- (s)
- (l)
- (g)
- (aq)

A

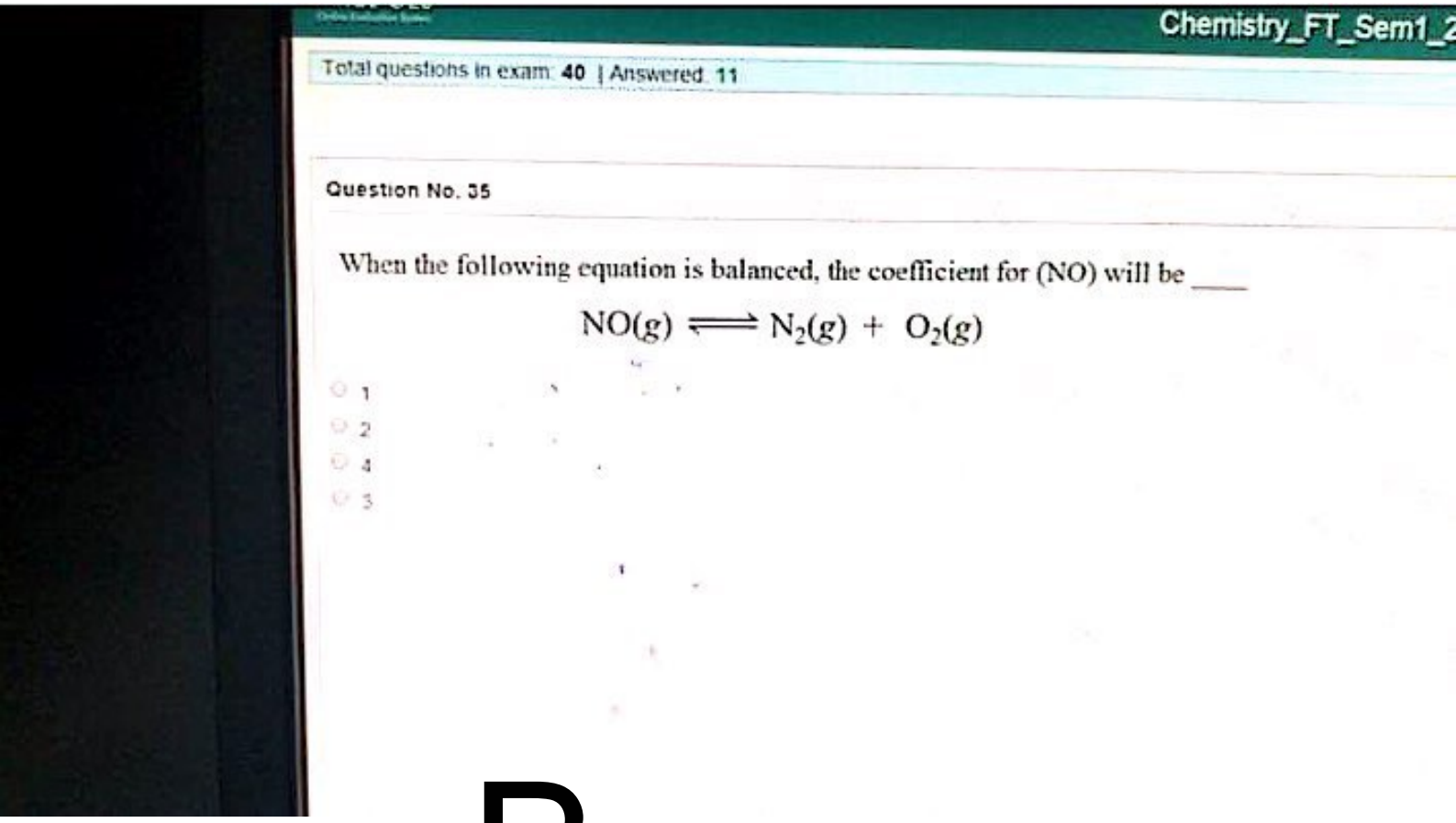
Total questions in exam: **40** | Answered: **12**

Question No. 32

What is the charge on Fe in FeO?

1. 2-
2. 1+
3. 2+
4. 3+

C



B

Total questions in exam: 40 | Answered: 12

Question No. 17

If 148.9 g of KCl are dissolved in enough water to make 4 L of solution, what is the molarity of this solution?

- 0.5 M
- 1.8 M
- 2.3 M
- 2.0 M

A

MKCL OES

Chemistry_FT_Sem1_20

Total questions in exam: **40** | Answered **12**

Question No. 20

Which of the following substances contains a nonpolar covalent bond?

- H_3O^+
- NaCl
- NH_3
- N_2

D

Diatomic molecule is nonpolar
for ex: N2, O2, F2 ...etc

Total questions in exam: **40** | Answered: **12**

Question No. 21

What is the final molarity of H_2SO_4 solution, if 85 mL of 4 M H_2SO_4 was diluted to a final volume of 0.5 L?

- 0 52 M
- 0 60 M
- 0 68 M
- 0 76 M

C

MKCL OES

Chemistry_FT_Sem1_201

Total questions in exam: 40 | Answered: 39

Question No. 33

What is the molarity of $FeCl_3$ in a solution prepared by dissolving 10.0 g of $FeCl_3$ in enough water to make 275 mL of solution?

- 0.224 M
- 4.46 M
- 4.46×10^{3} M
- 2.24×10^{-4} M

A

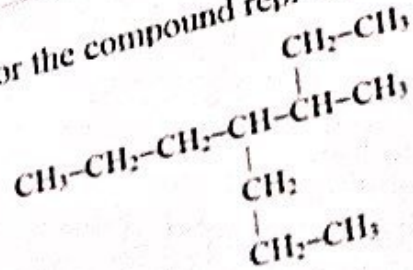
Save & Next

MKCL OES

Total questions in exam: 40 | Answered

Question No. 16

The systematic name for the compound represented below is



- 4,5-diethylheptane.
- 3-propyl-4-ethylhexane
- 3-ethyl-4-propylhexane
- 3-methyl-4-propylheptane.

D

Question No. 30

Which of the following is a general property of an acidic solution?

- tastes sour
- turns litmus paper to red
- pH is less than 7
- all are correct

D

Total questions in exam: 40 | Answered: 12

Question No. 31

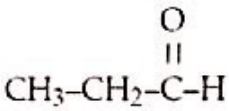
Which of the following pairs is NOT a conjugate acid-base pair according to the concept of Bronsted-Lowry?

- H_3PO_4 and $H_2PO_4^-$
- H_3PO_4 and HPO_4^{2-}
- HPO_4^{2-} and PO_4^{3-}
- $H_2PO_4^-$ and HPO_4^{2-}

B

Question No. 28

What is the family of this organic compound?



- aldehyde
- ketone
- carboxylic acid
- ester

A

Aldehyde: R-CO-H

Total questions in exam: **40** | Answered: **12**

Question No. 21

What is the final molarity of H_2SO_4 solution, if 85 mL of 4M H_2SO_4 was diluted to a final volume of 0.5 L?

- 0 52 M
- 0 60 M
- 0 68 M
- 0 76 M

C

Total questions in exam: **40** | Answered: **12**

Question No. 36

Calculate the mass percent composition of carbon in $Fe_2(CO_3)_3$?

- 12.3%
- 18.1%
- 22.7%
- 27.1%

A

Total questions in exam: 40 | Answered: 12

Question No. 25

What is the molecular formula of a compound that has a molar mass of 68 g/mol and its empirical formula is HO?

- H_2O
- H_2O_3
- H_4O_4
- H_2O_4

C

MKCL OES

Chemistry_FT_Sem1_20

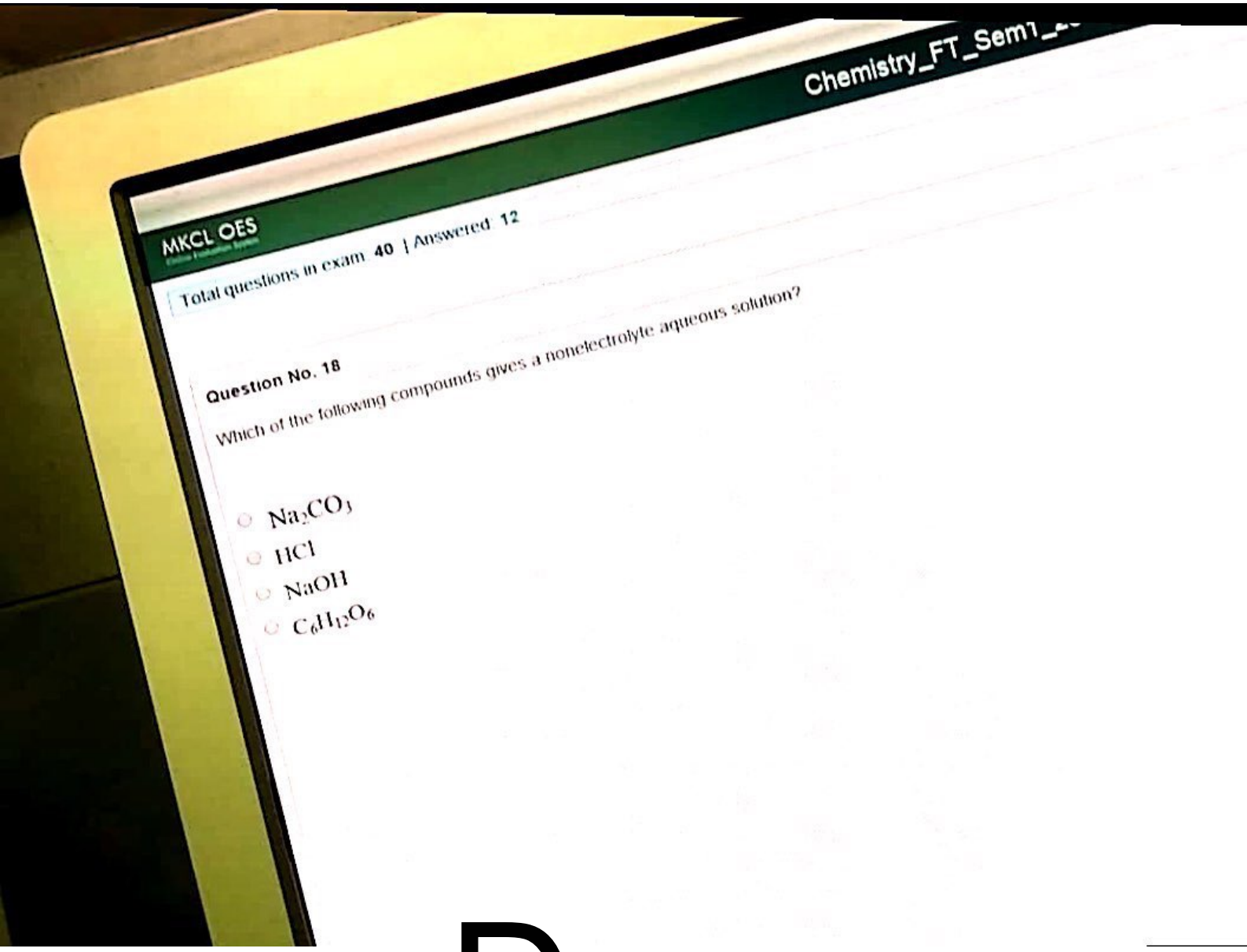
Total questions in exam: **40** | Answered **12**

Question No. 20

Which of the following substances contains a nonpolar covalent bond?

- H_3O^+
- NaCl
- NH_3
- N_2

D

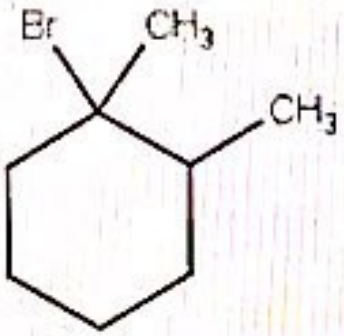


D

Sucrose is nonelectrolyte

Question No. 24

Choose the correct name for the following compound:



- 1-bromo-1,2-dimethylcyclohexane
- 1-bromo-1,2-dimethylbenzene
- 2-bromo-1,2-dimethylcyclohexane
- 2-bromo-2-methyltoluene

A

Question No. 26

Which family of organic compounds does NOT contain a "carbonyl group, C=O"?

- ethers
- carboxylic acids
- ketones
- aldehydes

A Ethers: C-O

MKCL OES
Online Evaluation System

Total questions in exam: **40** | Answered: **5**

Question No. 33

Express the equilibrium constant for the following reaction.

$$KClO_3(s) \rightleftharpoons KClO(s) + O_2(g)$$

- $K = [O_2]^{-1}$
- $K = \frac{[KClO][O_2]}{[KClO_3]}$
- $K = \frac{[KClO_3]}{[KClO][O_2]}$
- $K = [O_2]$

D

MKCL OES

Chemistry_FT_Sem1_20

Total questions in exam: 40 | Answered: 9

Question No. 13

Which of the following pairs of systematic names and common names is correctly matching?

- toluene = hydroxybenzene
- aniline = aminobenzene
- acetylene = ethene
- phenol = methylbenzene

B

methylbenzene = Toluene
Hydroxybenzene = Phenol
Aminobenzene = aniline
Aceylene = ethyne

Save & Next حفظ والتالي

Total questions in exam: **40** | Answered: **0**

Question No. 3

Which one of the following is a Lewis base?

- BF_3
- $AlCl_3$
- NH_4^+
- NH_3

D

Total questions in exam 40 | Answered 0

Question No. 8

What is the $[OH^-]$ in a solution that has a $[H_3O^+] = 1 \times 10^{-6}$ M?

- 1×10^{-2} M
- 1×10^{6} M
- 1×10^{10} M
- 1×10^{-8} M

D

Save & Next

MKCL OES
Online Evaluation System

Total questions in exam: **40** | Answered: **5**

Question No. 33

Express the equilibrium constant for the following reaction.

$$KClO_3(s) \rightleftharpoons KClO(s) + O_2(g)$$

- $K = [O_2]^{-1}$
- $K = \frac{[KClO][O_2]}{[KClO_3]}$
- $K = \frac{[KClO_3]}{[KClO][O_2]}$
- $K = [O_2]$

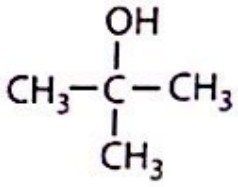
D

MKCL OES
Online Evaluation System

Total questions in exam: **40** | Answered: **5**

Question No. 34

What is the type of the following alcohol?



- Secondary
- Primary
- Tertiary
- Quaternary

C

Total questions in exam: **40** | Answered: **12**

Question No. 22

How many liters of a 0.5 M NaCl solution contain 1.5 mole of NaCl?

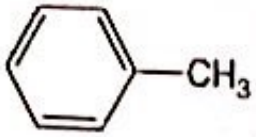
- 0.3 L
- 0.7 L
- 1.5 L
- 3.0 L

D

Total questions in exam: 40 | Answered: 0

Question No. 1

What is the name of compound shown below?



- benzene
- phenol
- toluene
- aniline

C

MKCL OES
Online Evaluation System

Chem

Total questions in exam: **40** | Answered: **0**

Question No. 2

Which of the following expression symbols is used for quantifying acidity and basicity?

- aH
- bH
- eH
- pH

D

Question No. 5

Which of the changes listed below will shift the equilibrium position to the *right* for the following reversible reaction?

$$CH_4(g) + H_2O(g) + \text{heat} \rightleftarrows CO(g) + 3\ H_2(g)$$

- A decrease of volume
- A decrease of $[CH_4]$
- A decrease of temperature
- A decrease of $[CO]$

D

Total questions in exam: 40 | Answered: 0

Question No. 7

Which of the following is the electron dot formula (Lewis structure) for an atom of strontium?

(a) Sr• (b) Sr• (c) •Sr: (d) •Sr:

- (a)
- (b)
- (c)
- (d)

B: (b)

Total questions in exam: **40** | Answered: **0**

Question No. 5

Which of the changes listed below will shift the equilibrium position to the r
the following reversible reaction?

$$CH_4(g) + H_2O(g) + \text{heat} \rightleftarrows CO(g) + 3\ H_2(g)$$

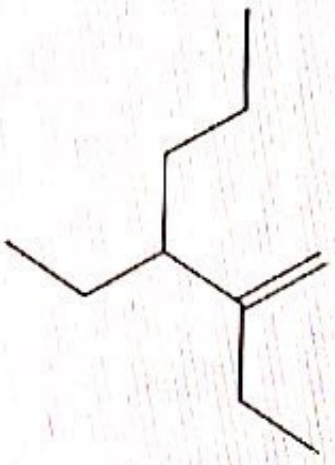
- A decrease of volume
- A decrease of $[CH_4]$
- A decrease of temperature
- A decrease of $[CO]$

D

Total questions in exam: **40** | Answered: **0**

Question No. 4

Name the following organic compound:



- 2,3-diethyl-1-hexene
- 4-ethyl-3-methyleneheptane
- 2-ethyl-3-propyl-1-pentene
- 2,3-diethyl-1-hexyne

A

Total questions in exam: **40** | Answered: **0**

Question No. 6

What is the oxidation number of iron in $Fe_2(SO_4)_3$?

- +5
- -2
- +2
- +3

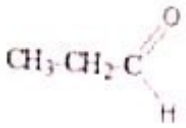
D

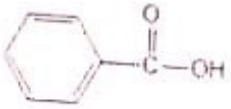
MKCL OES

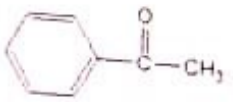
Total questions in exam: 40 | Answered: 3

Question No. 11

Which structure below represents a ketone?





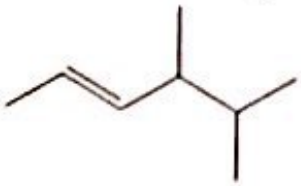


D

Total questions in exam: 40 | Answered: 0

Question No. 9

Provide the name of the compound below.



- 2,3-dimethyl-4-hexene
- 2,3-dimethyl-5-hexene
- 4,5-dimethyl-2-hexene
- 4,5-dimethyl-3-hexene

C

Total questions in exam 40 | Answered 0

Question No. 10

Dinitrogen tetraoxide decomposes to produce nitrogen dioxide. Calculate the equilibrium constant for the reaction given the equilibrium concentrations at 100 °C:
$[N_2O_4] = 0.60\ M$ and $[NO_2] = 1.00\ M$.

$$N_2O_4(g) \rightleftarrows 2\,NO_2(g)$$

- $K_c = 2.00$
- $K_c = 0.500$
- $K_c = 0.625$
- $K_c = 1.67$

D

Question No. 5

Which of the changes listed below will shift the equilibrium position to the *right* for the following reversible reaction?

$$CH_4(g) + H_2O(g) + \text{heat} \rightleftarrows CO(g) + 3\ H_2(g)$$

- A decrease of volume
- A decrease of $[CH_4]$
- A decrease of temperature
- A decrease of $[CO]$

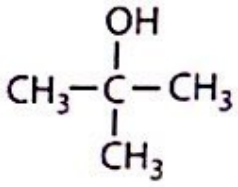
D

MKCL OES
Online Evaluation System

Total questions in exam: **40** | Answered: **5**

Question No. 34

What is the type of the following alcohol?



- Secondary
- Primary
- Tertiary
- Quaternary

C

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Chemistry_FT_Sem1_2018

Total questions in exam: 40 | Answered: 35

Question No. 17

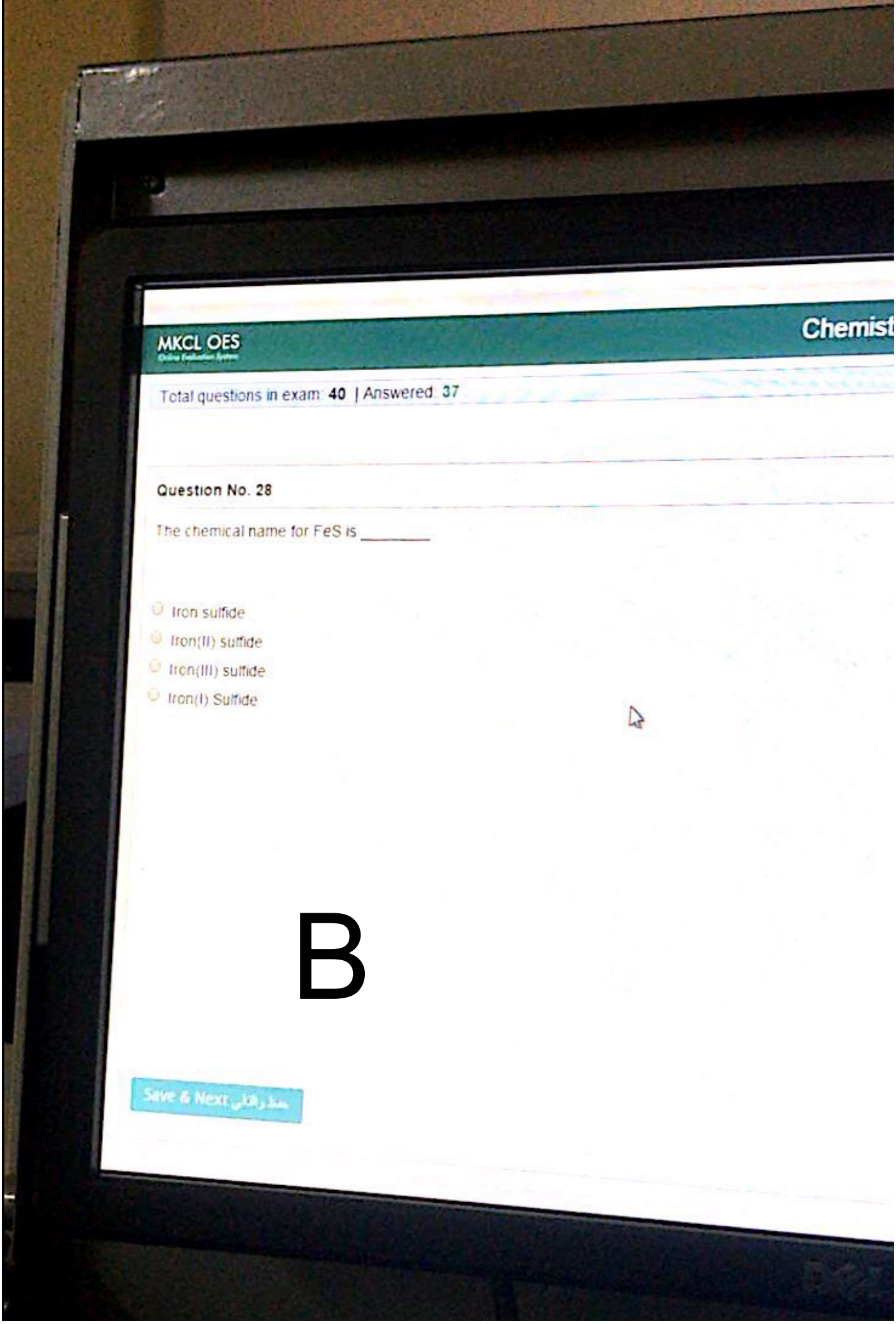
The following reaction is *exothermic*. Which of the following will drive the reaction to the right (towards products)?

$$CH_4\,(g) + 2\,O_2\,(g) \rightleftharpoons CO_2\,(g) + 2\,H_2O\,(g) + \text{heat}$$

- An increase of H_2O
- A decrease of CO_2
- An increase in temperature
- The removal of CH_4

D

Save & Next



Total questions in exam: 40 | Answered: 3

Question No. 12

For a given reaction

$$V_2O_5(s) + 5\,Ca(l) \rightarrow 2\,V(l) + 5\,CaO(s)$$

When 10 moles of V_2O_5 are mixed with 10 moles of Ca, which is the limiting reactant to the above equation?

- CaO
- V
- Ca
- V_2O_5

C

Save & Next

Question No. 1

Consider the reaction: $2\ SO_2(g) + O_2(g) \leftrightarrow 2\ SO_3(g)$

If, at equilibrium at a certain temperature, $[SO_2] = 1.50$ M, $[O_2] = 0.120$ M, and $[SO_3] = 1.25$ M, what is the value of the equilibrium constant K_{eq}?

- 5.79
- 8.68
- 0.14
- 6.94

A

Save & Next حفظ والتالي

Question No. 3

Which one of the following is a Lewis base?

- BF_3
- $AlCl_3$
- NH_4^+
- NH_3

D

Question No. 2

Predict which of the following compounds has an ionic bond.

- HI
- CCl_4
- LiH
- IBr

C

Save & Next حفظ والتالي

Total questions in exam: 40 | Answered: 6

Question No. 6

Which of the following solutions is the most basic?

- $[H_3O^+] = 1.0 \times 10^{-10}\ M$
- $[OH^-] = 1.0 \times 10^{-10}\ M$
- $[OH^-] < 1.0 \times 10^{-10}\ M$
- $[H_3O^+] > 1.0 \times 10^{-7}\ M$

A

Save & Next

MKCL OES

Total questions in exam: 40 | Answered: 0

Chemistry_FT_Sem1_2018

Question No. 1

When the substances in the equation below are at equilibrium, at pressure P and temperature T, the equilibrium can be shifted to favor the products by

$$CuO(s) + H_2(g) \rightleftharpoons H_2O(g) + Cu(s) + Heat$$

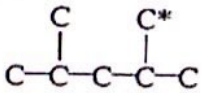
- decreasing the pressure
- decreasing the temperature
- adding more CuO
- increasing the pressure

B

& Next

Question No. 32

The carbon skeleton of an alkane is shown below. How many hydrogen atoms are bonded to the carbon marked with a *?



- 1
- 3
- 2
- 0

B

DES

uestion No. 42

When heat (q) has positive value, this means that _____.

- The system loses thermal energy.
- The work (w) = 0.
- The surrounding gains thermal energy.
- The system gains thermal energy.

D

Total questions in exam: 40 | Answered: 13

Question No. 40

The conjugate base of H_2SO_4 is

- HSO_4^+
- H_2SO_4
- OH^-
- HSO_4^-

D

Save & Next

Question No. 22

Which of the following is true if the pH of a solution changes from 2 to 5?

- $[H^+]$ increases
- $[H^+]$ decreases
- K_W increases
- K_W decreases

44
101

B

[H]+ = [H3O+]

What is the IUPAC name for CH_3-CH_2-C≡CH?

- 3-butyne
- 1-butyne
- 2-butyne
- butyne

B

Total questions in exam: 40 | Answered: 13

Question No. 40

The conjugate base of H_2SO_4 is

- HSO_4^+
- H_2SO_4
- OH^-
- HSO_4^-

D

Save & Next

Question No. 37

How many moles and how many atoms of zinc (Zn) are in a sample weighing 34.9 g?

- 0.533 mol, 8.85×10^{-25} atoms
- 0.533 mol, 3.21×10^{23} atoms
- 1.87 mol, 3.10×10^{-24} atoms
- 1.87 mol, 1.13×10^{24} atoms

B

MKCL OES

Total questions in exam: 40 | Answered: 2

Question No. 24

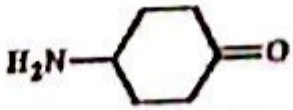
Which of the following compounds gives a nonelectrolyte aqueous solution?

- HBr
- Na_2CO_3
- CCl_4
- HI

C

Question No. 36

The functional groups in the molecule below are



- ketone and amine
- aldehyde and amine
- aldehyde and ketone
- carboxylic acid and amine

A

Save & Next

HP Compaq LE1711

Total questions in exam: 40 | Answered: 22

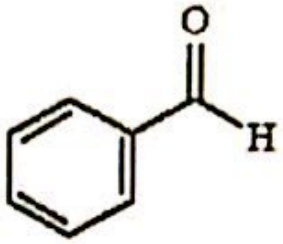
Question No. 40

The conjugate base of H_2SO_4 is

- HSO_4^-
- H_2SO_4
- OH^-
- HSO_4

D: HSO4-

Identify the type of this organic compound:



- alcohol
- carboxylic acid
- aldehyde
- ketone

C

Save & Next حفظ والتالي

If the stomach digestive juice has a pH = 2, this medium is _____

- strongly acidic
- neutral
- weakly acidic
- weakly basic

A

Save & Next حفظ والتالي

Total questions in exam: **40** | Answered: **12**

Question No. 22

How many liters of a 0.5 M NaCl solution contain 1.5 mole of NaCl?

- 0.3 L
- 0.7 L
- 1.5 L
- 3.0 L

D

Volume (L) = moles / molarity

MKCL OES

Chemistry_FT_Sem1_2018

Total questions in exam: 40 | Answered: 4

Question No. 39

What are the correct coefficients needed to balance the reaction below?

$$N_2H_4 + H_2O_2 \rightarrow N_2 + H_2O$$

- 2, 4, 2, 8
- 1, 1, 1, 1
- 1, 4, 1, 4
- 1, 2, 1, 4

D

$N_2H_4 + 2H_2O_2 \rightarrow N_2 + 4H_2O$

Save & Next

HP Compaq LE1711

Question No. 6

What is the oxidation number of iron in $Fe_2(SO_4)_3$?

- +5
- -2
- +2
- +3

D

Question No. 27

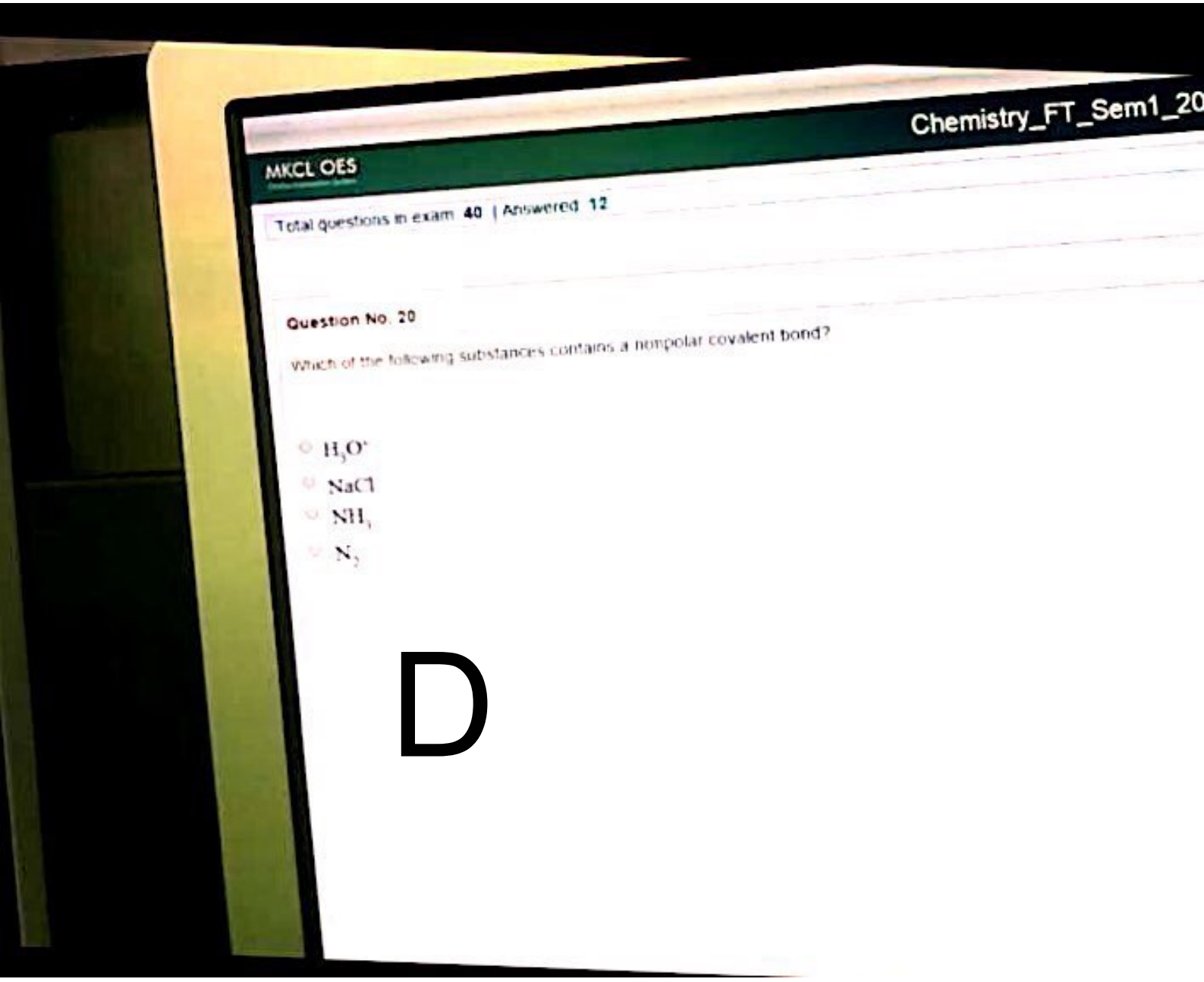
Refer to the equilibrium shown below. Which of the following will shift the reaction to the right?

$$CH_4\,(g) + 2O_2\,(g) \rightleftharpoons CO_2\,(g) + 2H_2O\,(g)$$

- adding excess oxygen
- increasing the pressure
- removing carbon dioxide as soon as it is formed
- adding O_2 and removing CO_2

D

Save & Next



MKCL OES

Chemistry_F

Total questions in exam: 40 | Answered: 11

Question No. 14

The following structure corresponds to a ..... alcohol.

- Primary
- Tertiary
- Quaternary
- Secondary

B

Save & Next

Total questions in exam: 40 | Answered: 0

Question No. 7

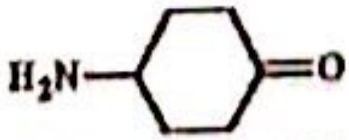
Which of the following is the electron dot formula (Lewis structure) for an atom of strontium?

(a) Sr• (b) Sr• (c) •Sr: (d) •Sr:

- (a)
- (b)
- (c)
- (d)

B

The functional groups in the molecule below are



- ketone and amine
- aldehyde and amine
- aldehyde and ketone
- carboxylic acid and amine

A

C-NH2 : amine
COC: ketone

Save & Next

Question No. 33

The oxidation number of iodine in KIO_4 is

(1) +1

(2) -1

(3) -7

(4) +7

D

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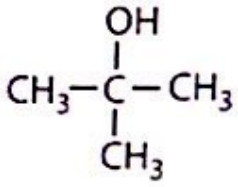
Total questions in exam: **40** | Answered: **5**

Question No. 34

What is the type of the following alcohol?



- Secondary
- Primary
- Tertiary
- Quaternary

C

If C atom bonded to:
1- 2H atoms and 1C then primary
2- 1H atoms and 2C then secondary
3- No H atom and 3C then teriary

MKCL OES

Chem

Total questions in exam: **40** | Answered: **31**

Question No. 36

Calculate the mass percent composition of carbon in $Fe_2(CO_3)_3$?

- 12.3%
- 18.1%
- 22.7%
- 27.1%

A

Total questions in exam: 40 | Answered: 0

Question No. 8

What is the $[OH^-]$ in a solution that has a $[H_3O^+] = 1 \times 10^{-6}$ M?

- 1×10^{-2} M
- 1×10^{-6} M
- 1×10^{-10} M
- 1×10^{-8} M

D

[OH-] x [H3O+] = 1x10^-14
[OH-] = 1*10^-14 / [H3O+]

Save & Next

MKCL OES
Online Evaluation System

Chemi

Total questions in exam: **40** | Answered: **0**

Question No. 2

Which of the following expression symbols is used for quantifying acidity and basicity?

- aH
- bH
- eH
- pH

D

Total questions in exam: **40** | Answered: **0**

Question No. 3

Which one of the following is a Lewis base?

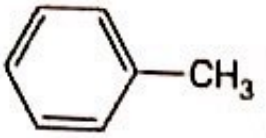
- BF_3
- $AlCl_3$
- NH_4^+
- NH_3

D

Total questions in exam: 40 | Answered: 0

Question No. 1

What is the name of compound shown below?



- benzene
- phenol
- toluene
- aniline

C