Shagaf

Organic Chem. Mid

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Designed By :

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1. If you have a flammable material, you can put a directly on Benson burner
a.false
b.true

answer: a

2. You can't put your face directly on chemicals
a.false
b.true

answer :a

3. You can't taste I said and bases in the lab
a.false
b.true

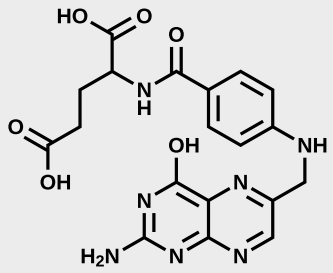
answer :b

4. Which of the following detectors can be used to distinguish between alkane and alkene
I.Kmno4OH II.O2 III.Concentated H2SO4 IV.CHCl3/AlCl3
a.III
b.I,II,III
c.I,III,IV
d. II,III,IV

answer :c

5.Which of the following has the highest pH?
a.0.1M HCl
b.0.1M C6H12O6
c.0.1 M NaOH
d.0.1 M CH3Co2H
e.0.1 M NaCl

answer :c



6. The idle guys one who has one of this

a. No color

b.high molar volue

c.no interaction between it's molecules

d.zero molar mass **answer: c**

7. Which of the following statement is correct about asset and base?

a. Bases are substance that produce OH minus ion in acquiesce solution better taste turn litmus paper into blue

b. acids are substance that produce H plus iron in solution have sore taste turn paper lit paper into yellow

c. Ammonium chloride is basic solution since the hydrolysis of its catatonic part NH4+ produce hydrogen

d. Sodium carbonate produce acidic solution since the hydrolysis of its anionic part CO3 -2 Produce hydroxide ions **answer: a**

8. Which of the following structures represent Aspirin

(الخيارات الموجوده كانت دقيقه نفس رسمه الاسبرين بس بتغيير بسيط احفظوها كويس)

9. A solution has a pH of 3.80 what is the concentration of OH- ion

Answer: 6.31*10^-11

10. 5. In the antacid experiment what is the color of bromophenol blue in acidic solution?

A. Blue

B. Colorless

C. Green

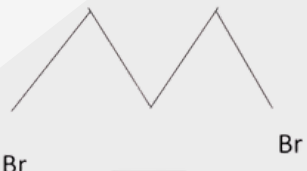
D.yellow

E. Pink **Answer : d**

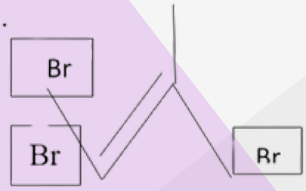
11. Which of the following product of reaction of (CH3CH=CH2) and (Br2/CCl4)

A.

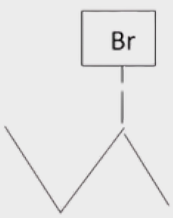
b.

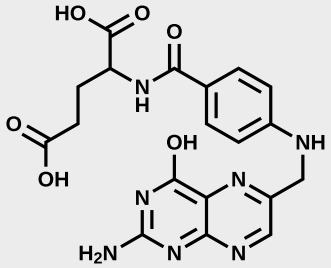


c.



d.





12. Which of the following situations is considered an isotope(s)?
120 Neutron, 20 protons
II 21 neutron, 20 protons
III 18 neutron, 21 protons
IN 21 protons, 22 neutrons
V 19 neutron, 19 protons

Answer: I WITH II AND III WITH IN

14. If the ph is 2.1, what is the poh, oH, H. Concentration?
Answer: 11,9———8*10^-3——-—1*10^-12
15. How many significant figures are in the following number 0.04073002?

Answer : 7

16.Metal oxides are very common..
Oxides are non-metallic materials very common.
A) bases, acids
B)Acids, bases
C) Amphoteric, bases
D) Acids, amphoteric
E) Amphoteric, amphoteric

Answer : c

17.If gastric acid ph is 1.78 what is the concentration oh H+?
Answer : 16.6*10^-3

18. كان في سؤال اعطاك المعادله وثابت الاتزان الها ،كان طالب ثابت التفاعل العكسي للمعادله

19.كان في سؤال اعطاك غرام واحد من غاز معين واعطاك ضغط وحجم وحراره ،وكان طالب الكتله الموليه للغاز

20.What is the scientific formula for the number 0.006590?

Answer :6.59 *10 ^-3

21.How many moles of NaoH are needed to form a buffer solution? The acid is (HC203H2) ka(1,8*10^-5)

Answer:

$$pH = pKa + \log\left(\frac{[A^-]}{[HA]}\right)$$

Where:

- $pKa = -\log(Ka)$
- $[A^-]$ is the concentration of the conjugate base (which is formed by the dissociation of the acid).
- $[HA]$ is the concentration of the acid

Given:

- $Ka = 1.8 \times 10^{-5}$

Step 1: Calculate pKa

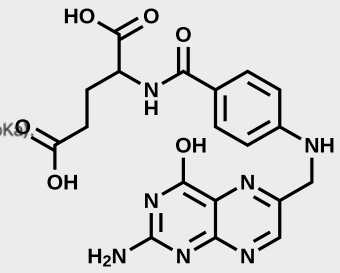
$$pKa = -\log(1.8 \times 10^{-5}) \approx 4.74$$

Step 2: Determine the buffer composition

To create a buffer, you'll need a specific ratio of $[A^-]$ to $[HA]$. Let's assume you want a buffer solution at pH 4.74 (which is equal to pKa).

In this case, the ratio of $[A^-]$ to $[HA]$ would be 1:1:

$$\frac{[A^-]}{[HA]} = 1$$



Step 3: Calculate moles of NaOH needed

Assuming you start with a certain number of moles of the weak acid HA (let's say n moles), you will need the same number of moles of NaOH to convert it into A^-:

$$\text{Moles of NaOH} = n \text{ (the same as the moles of HA)}$$

If you want a specific buffer concentration, you can multiply the desired concentration by the volume of the buffer solution to find n.

Example Calculation

- If you want 0.1 M buffer in 1 L solution:

$$n = 0.1 \text{ moles of HA}$$

Then, you will need:

$$\text{Moles of NaOH} = 0.1 \text{ moles}$$

Conclusion

To form a buffer solution with the given weak acid, the moles of NaOH needed will equal the moles of the acid you intend to use. Adjust the values based on your specific requirements for concentration and volume.

ملاحظه :
تمت الاستعانه بال **AI** في حل هذا السؤال لعدم تذكر واستحضار الفريق تفاصيل الماده

21.what is the temperature Of 89k is equal ?

Answer : -184,15 c. -299,47 F