

25

Ca^{2+}

أقيم الجابتي

Ca^{2+}

15

Ca^{2+}

(150) Ca^{2+}

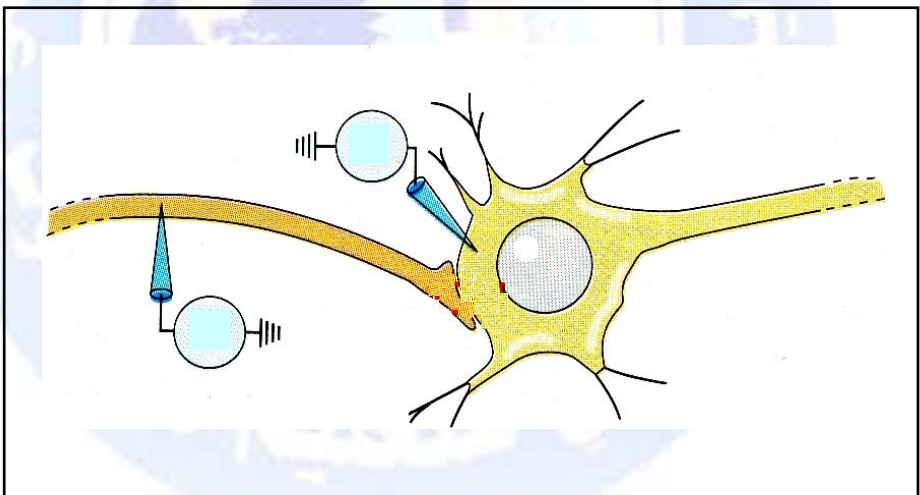
30

(600) Ca^{2+}

60


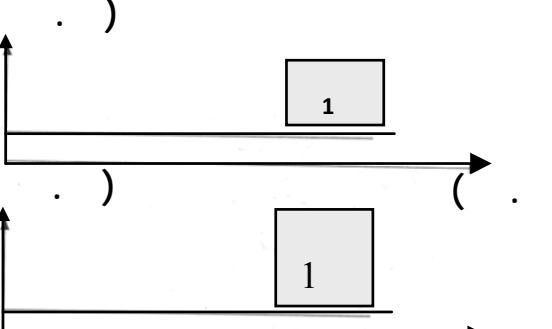
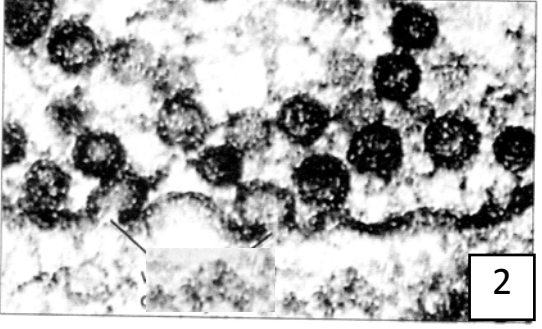
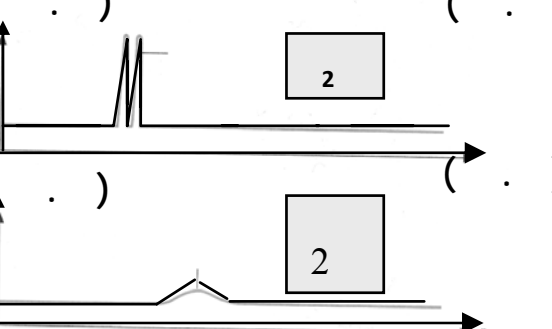
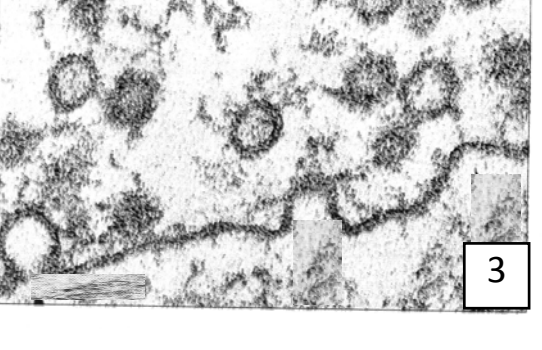
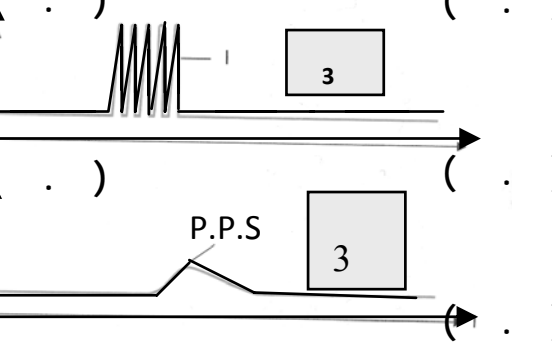
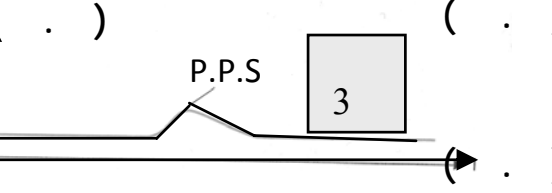
Ca²⁺ Ca²⁺ Ca²⁺ Ca²⁺ Ca²⁺ Ca²⁺

(26) 3



26

(26) . () () :

	<p>(.)</p> 
	<p>(.)</p> 
	<p>(.)</p>  <p>(.)</p> 
<p>26</p>	<p>26</p>

27

(27) (26)

أقيم اجابتي ◀

: 26 *

: 1 -

() .

(2)

: 2 - -

)

(3)

() .
: 3 -

)

(

: 27 *

()

❖ - 4

❖

أقيم الجائزتي



❖



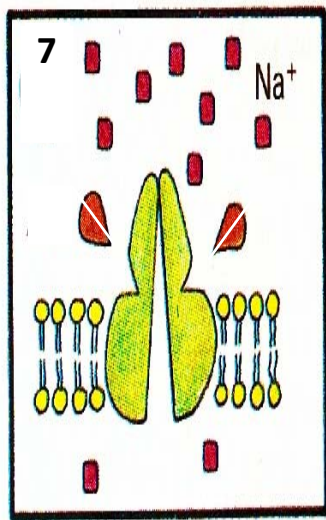
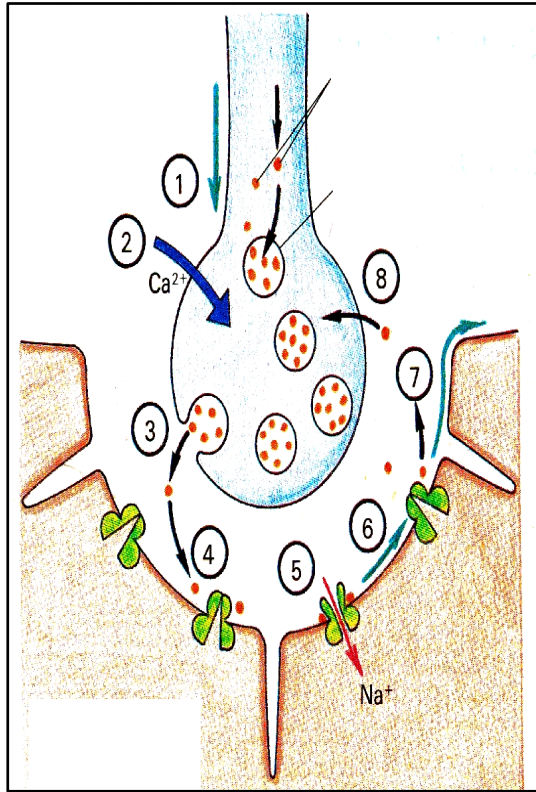
Ca²⁺

Ca²⁺

()

:

❖



:1

Ca^{2+}

:2

:3

:4

Na^+

:5

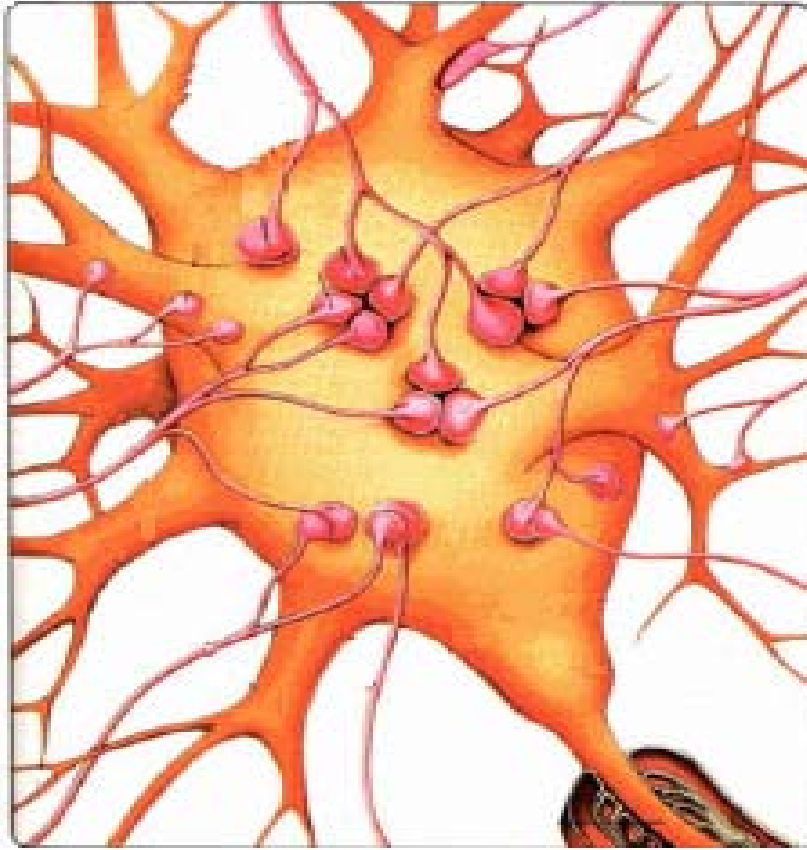
:6

:7

:8

:

أنواع المشابك المتصلة بالعصبون



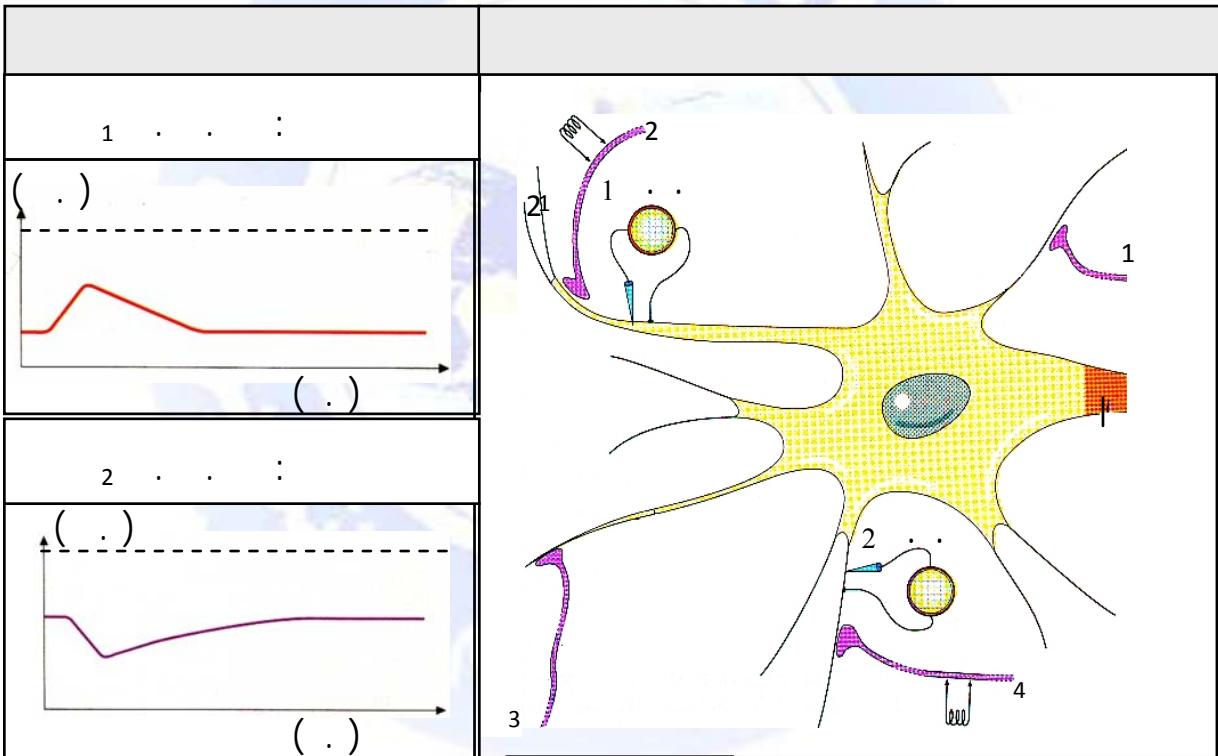
(4) (2)

1

(1 . .)

(2 . .)

.(1)



1

(1)

2

.(PPSE)

: 2 . .

.(PPSI)

4

(PPSE)

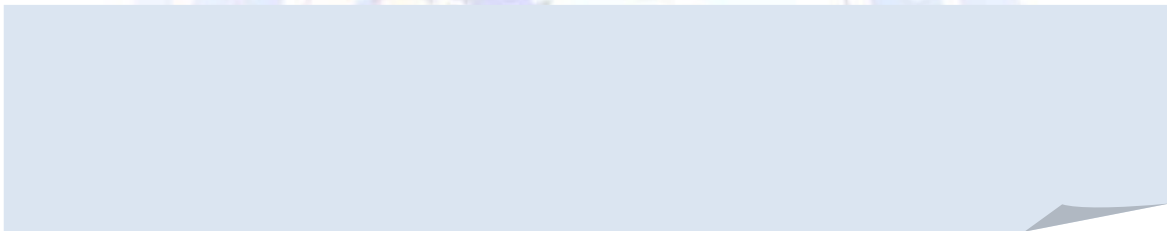
:

*

(PPSI)

:

*



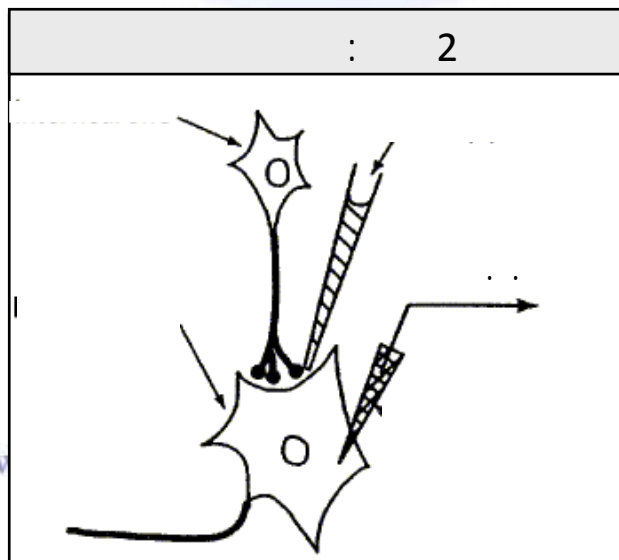
2

GABA

❖

.(2

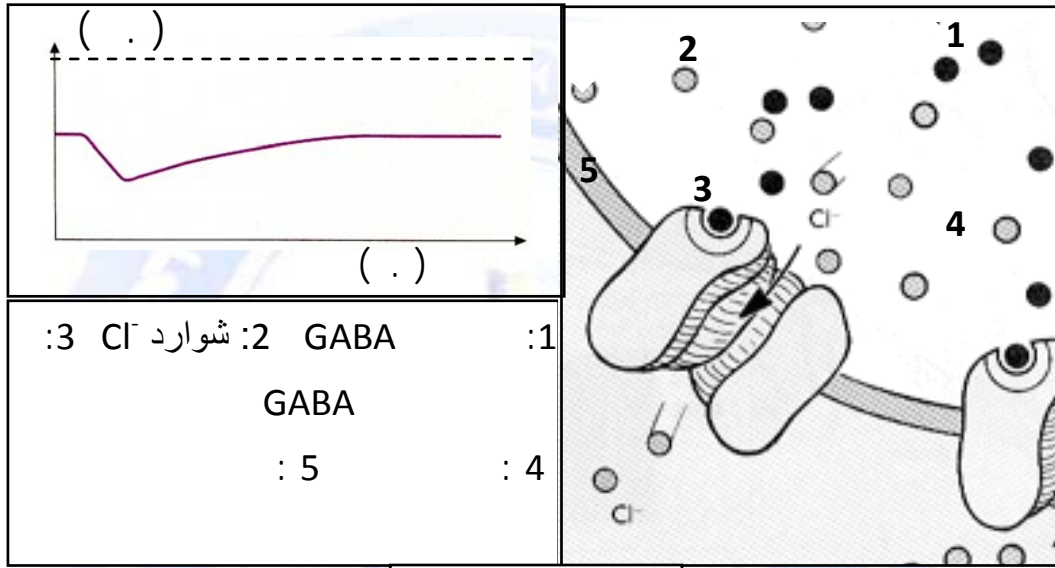
)



(2)

: GABA

.(GAD)



2

Cl^-

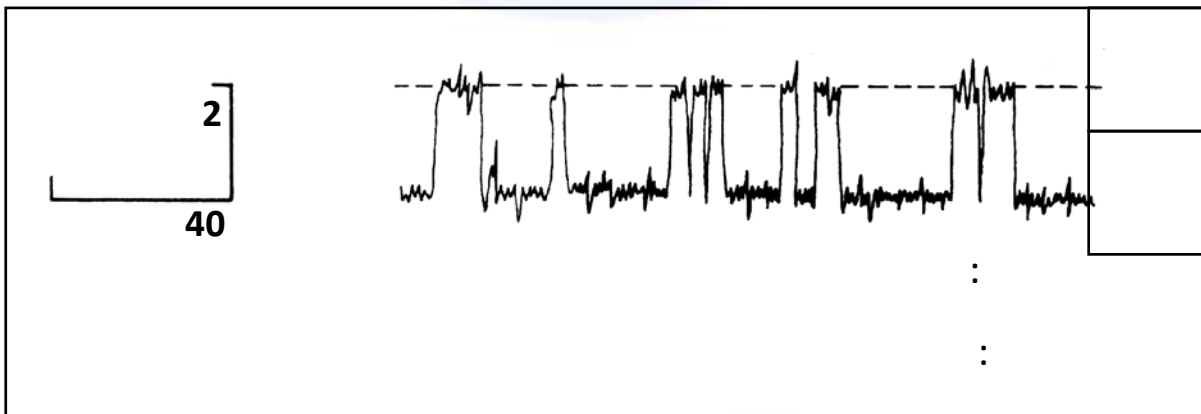
(3)



.GABA

(

)



(3) (2)

. GABA

. GABA

أقيم الجانبي



: GABA

1

GABA

Cl⁻

Cl⁻

2

Na⁺

GABA

Na⁺

3

()

:

Na⁺

*

GABA

*

. Cl⁻

4)

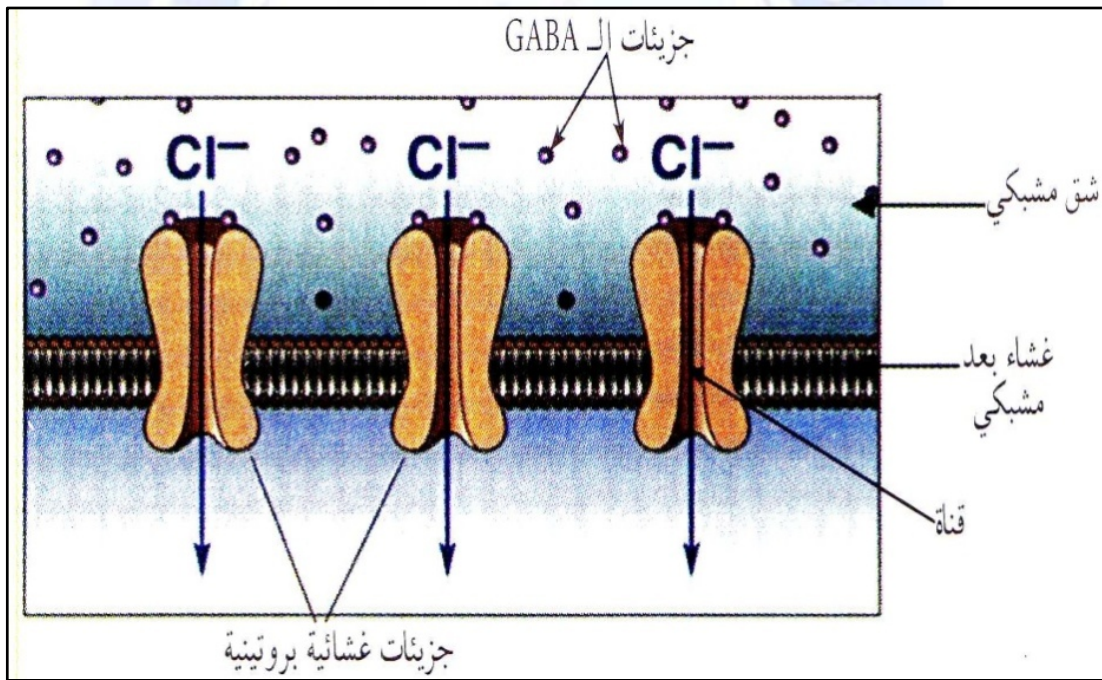
❖

(1

.GABA

.GABA

(4)



4

: (4)

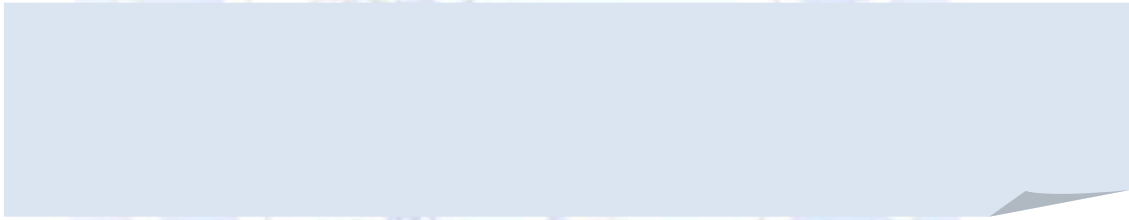
. PPSI PPSE

: PPSI PPSE

() :

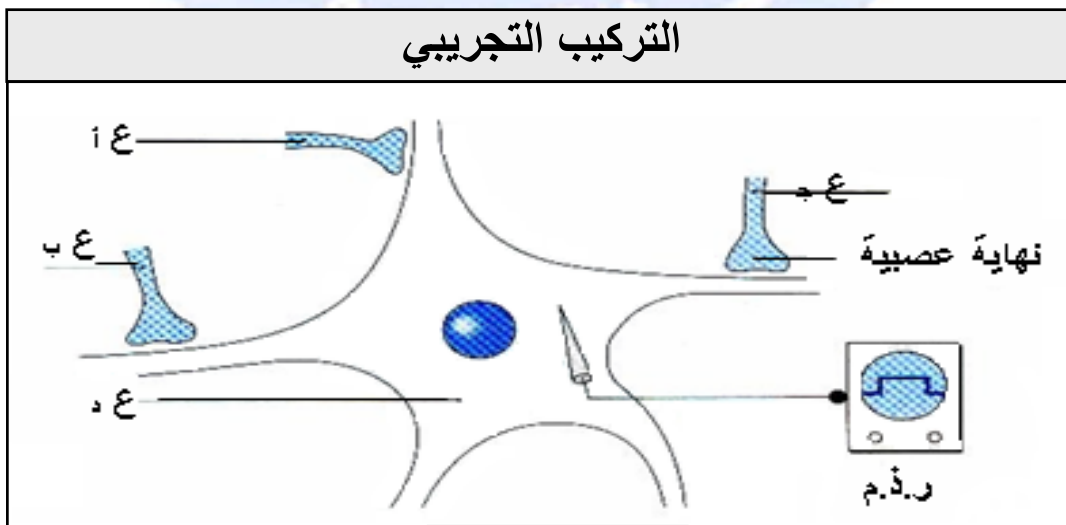
Na⁺
GABA

Cl⁻



3

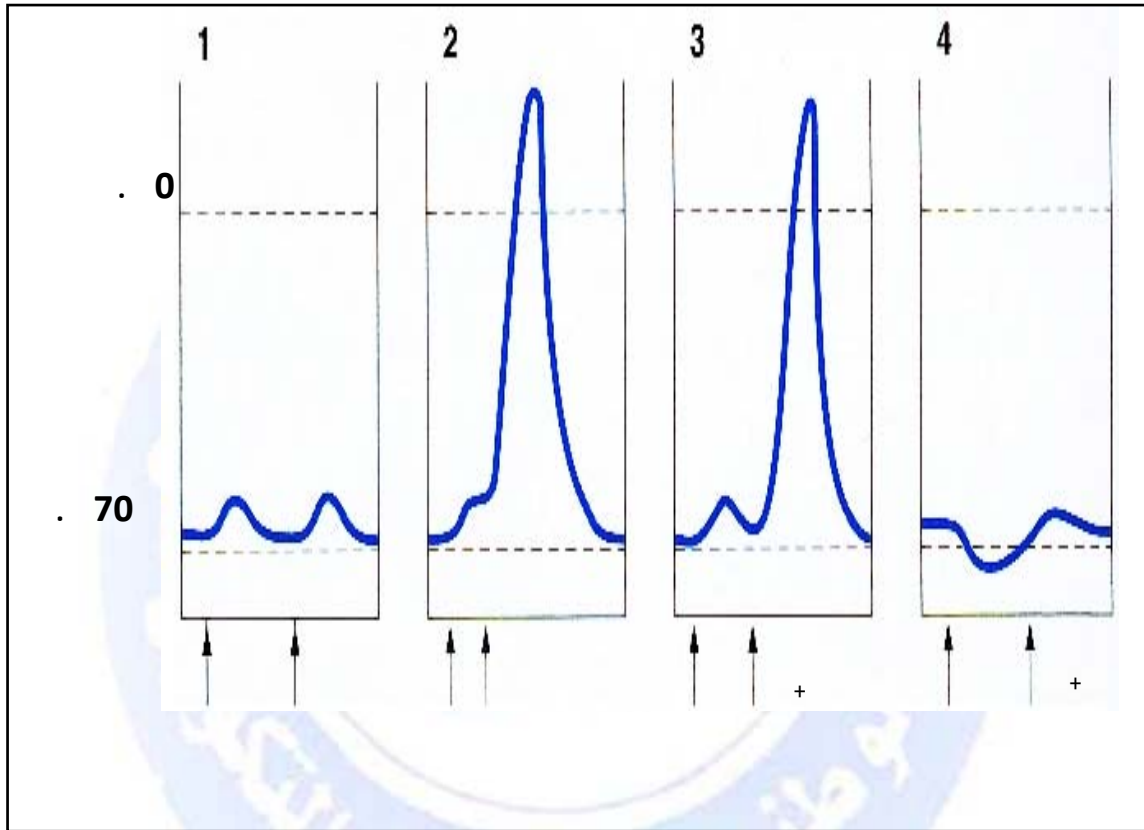
(5)



()

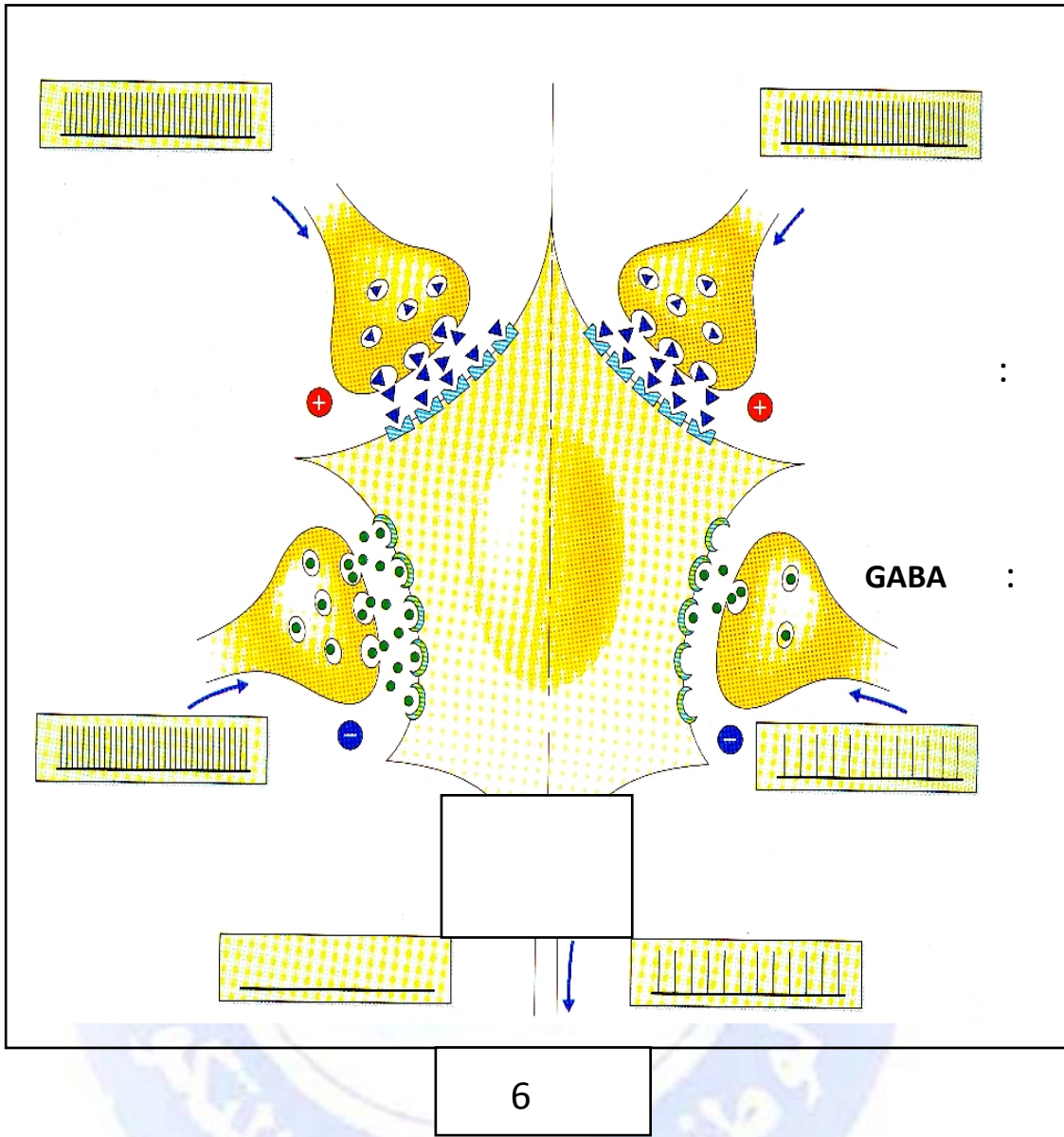
()

(5)



(6)





(5)

1

2

(6)

3

4



③ 1 : () *

2 : () *

3 : () () *

4 : () *

() ()

2 :

:

:

(2) .

:

)

. (3

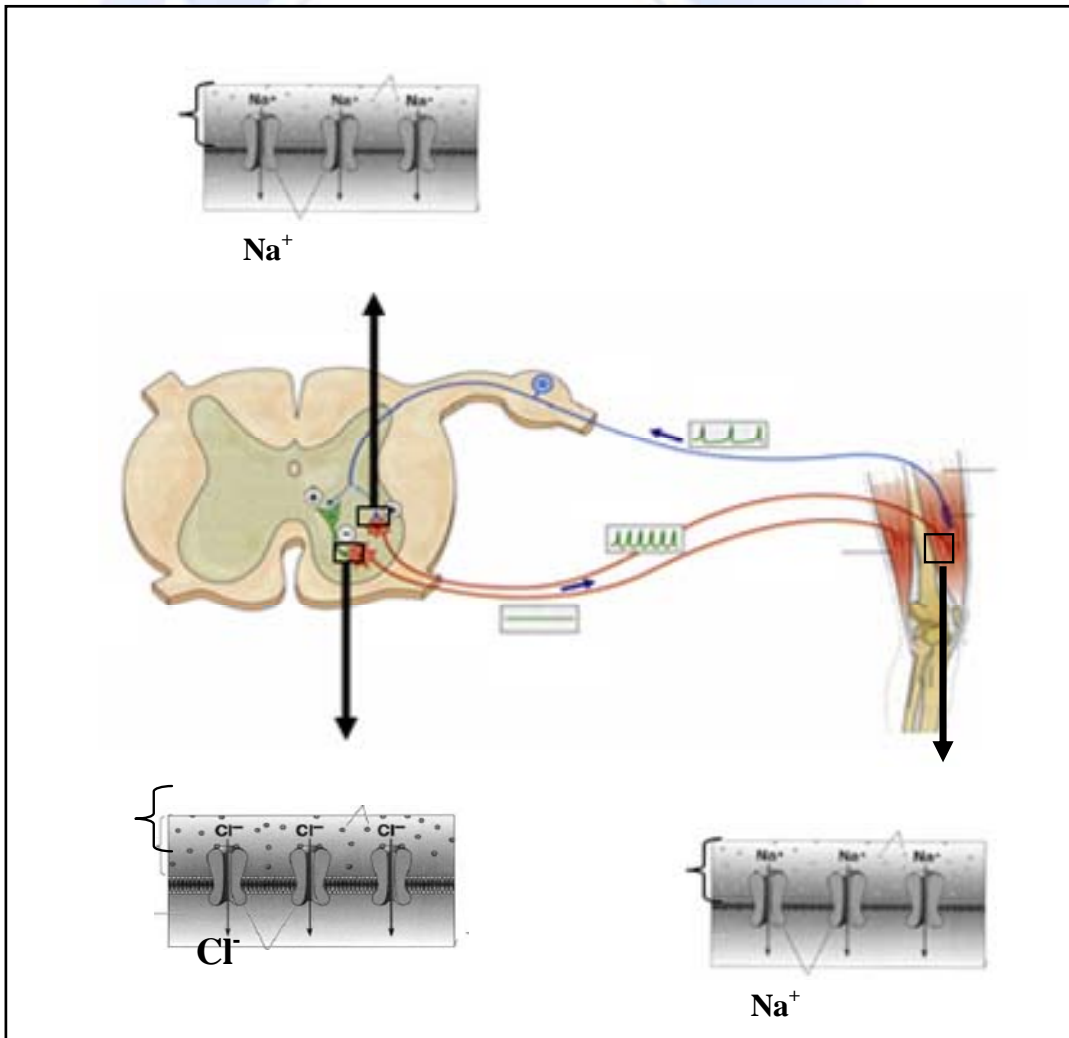
3

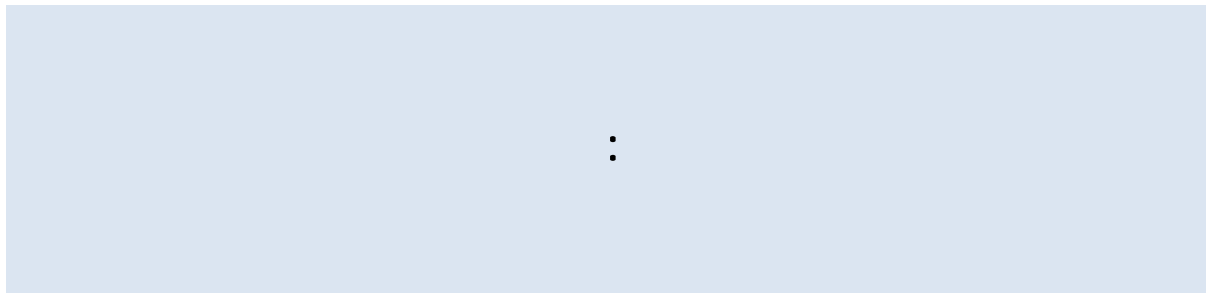
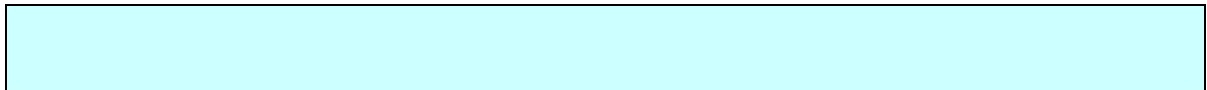
:



:

4





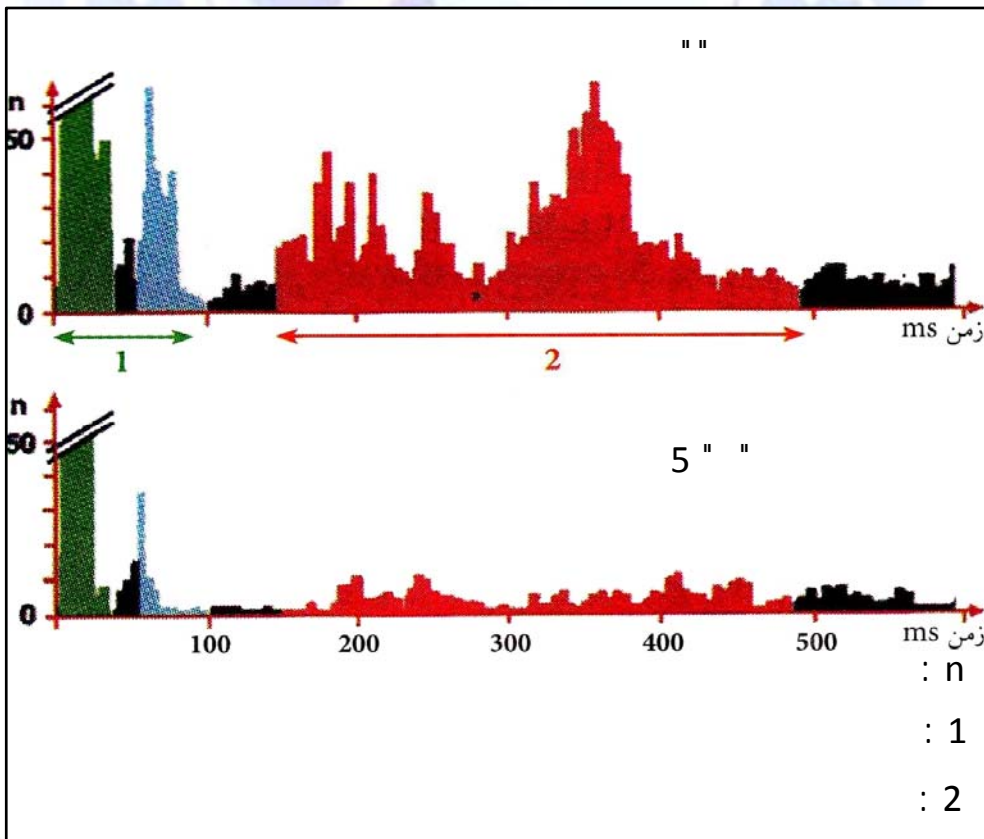
:

1



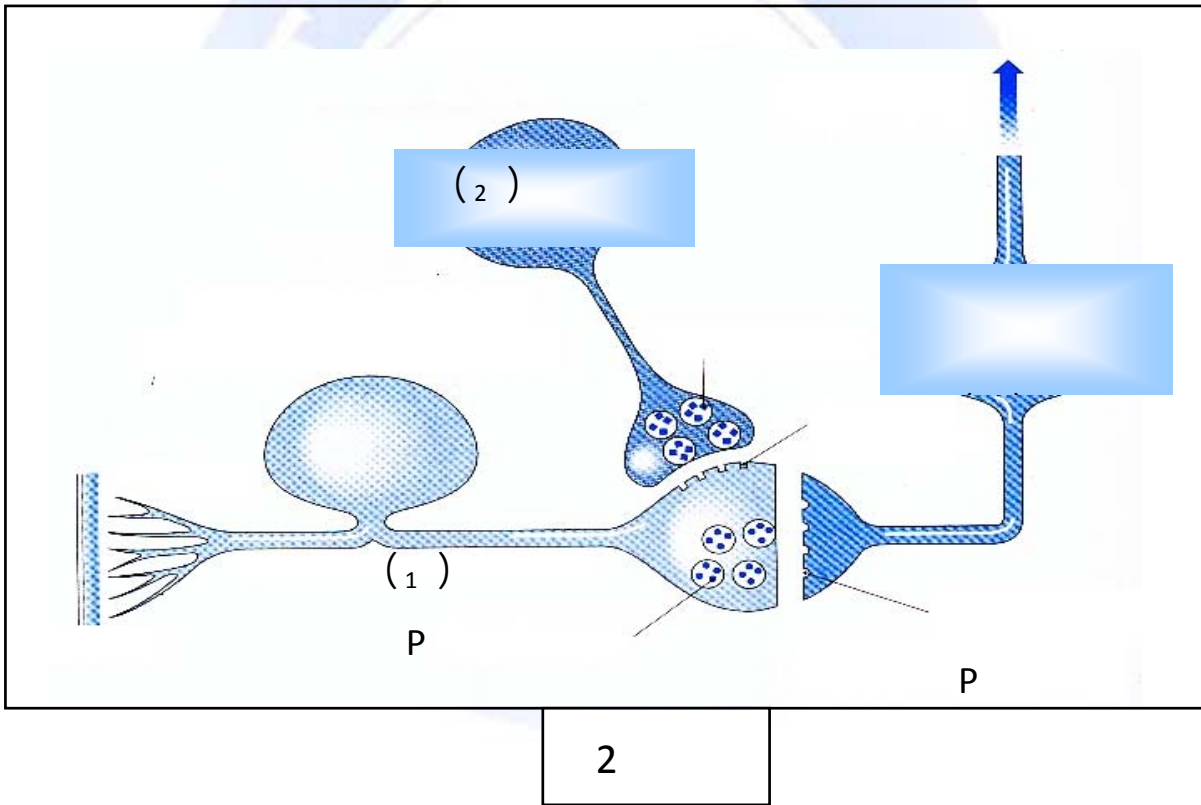
(1)

(1)





(2) .



(1)

(P)

(1)

(3 1) .

(1)

(2)

:

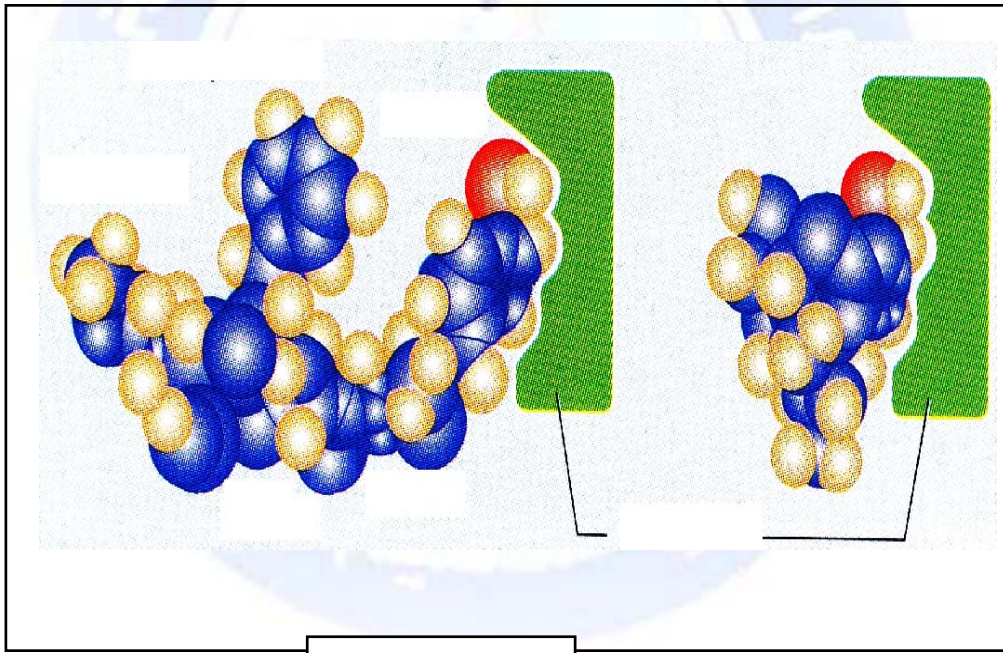
(1)

(1 2)

(P)

(3 1)

(3)



3

.(1)

1

2

(3) (2)

3

أقيم اجابتي



1 :

2 :

3 :

(

)

(P)

(3)

(P)

(Benzodiazépines)

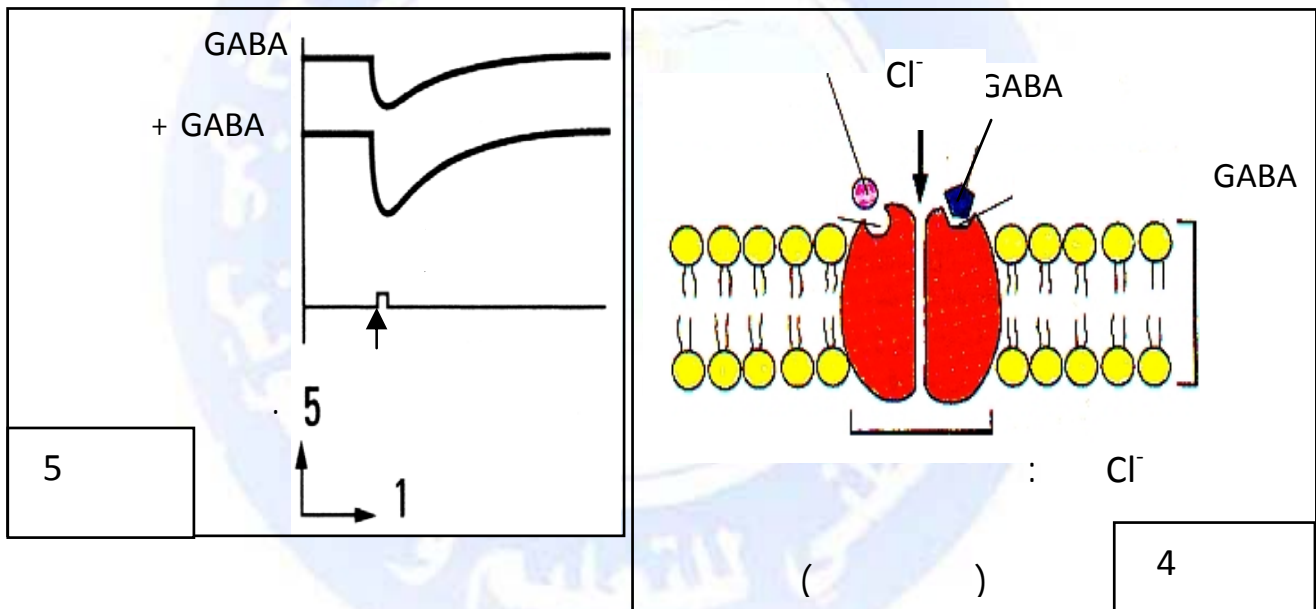
.()

GABA

1978

.(4)

GABA



(5 4)

1

2 _ استخراج من ما سبق طريقة تأثير المخدرات على مستوى المشابك.

أقيم اجابتي



1

GABA

:GABA

Cl^-

Cl^-

(9)

.GABA

(10)

.GABA

2

.GABA



1- مصدر كمون العمل

-2

3 :

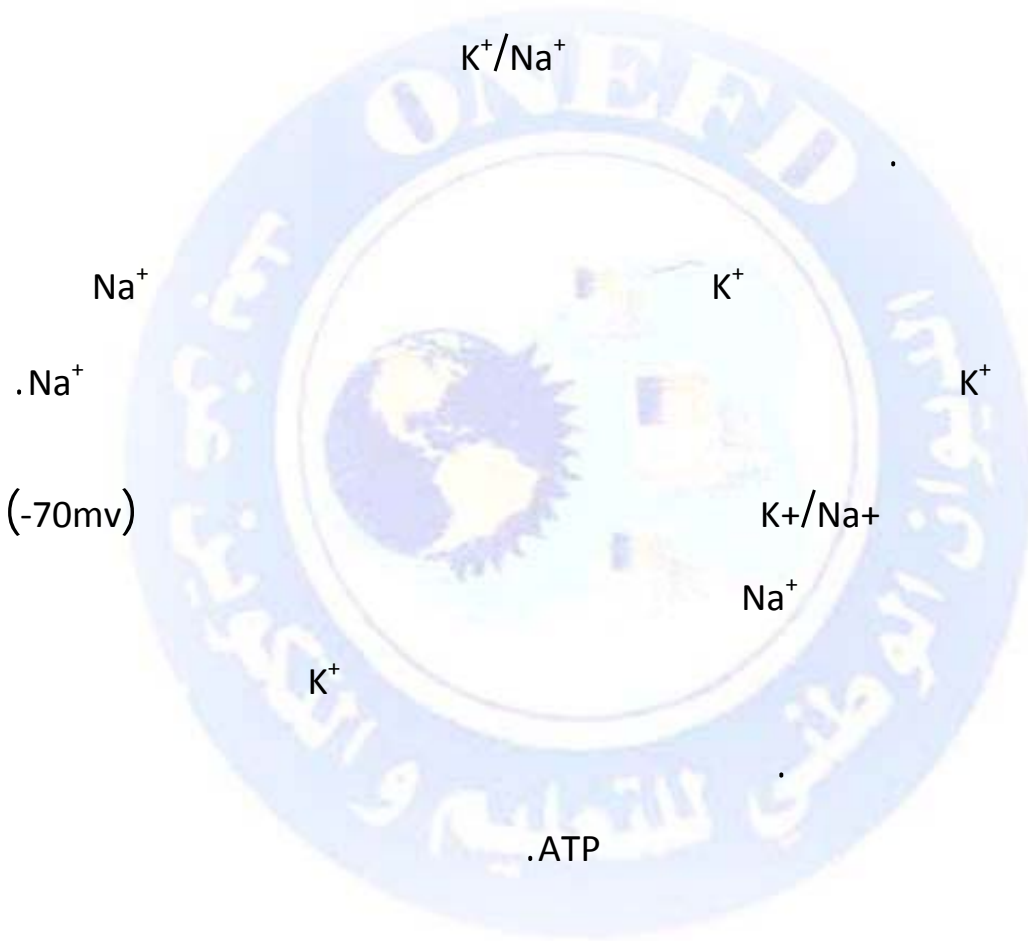
*

*

?

?

*



4 :

-

-

Na⁺

?

Na⁺

K⁺

K⁺

?

(ATP)

K⁺/ Na⁺

-

-

5

*

Na⁺ ()

()

*

() ()

*

Na⁺

*

*

*

*

Ca²⁺

Ca²⁺

*

1

?

(PPSE)

?

(PPSI)

Na⁺

?

GABA

?

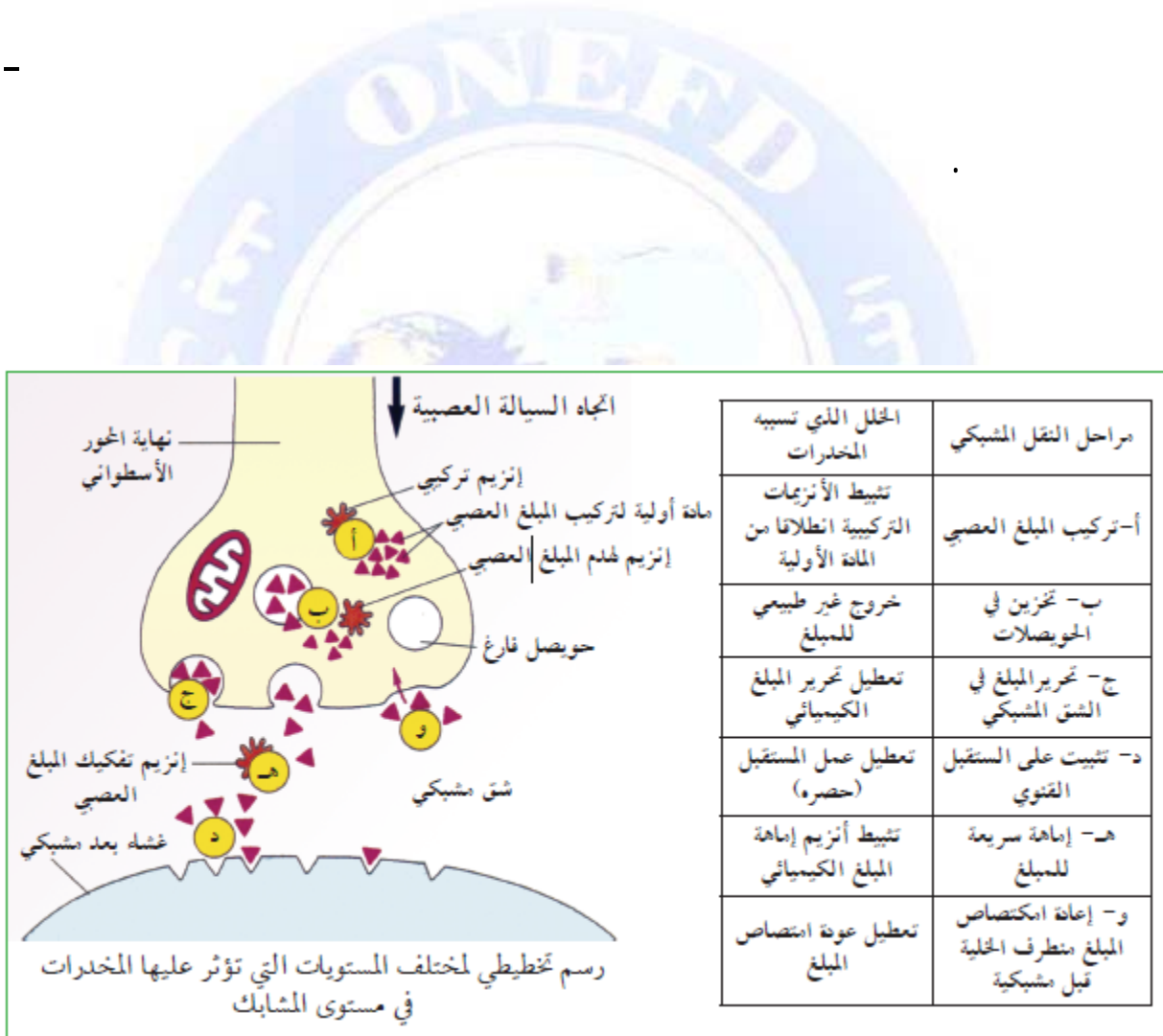
Cl⁻



2

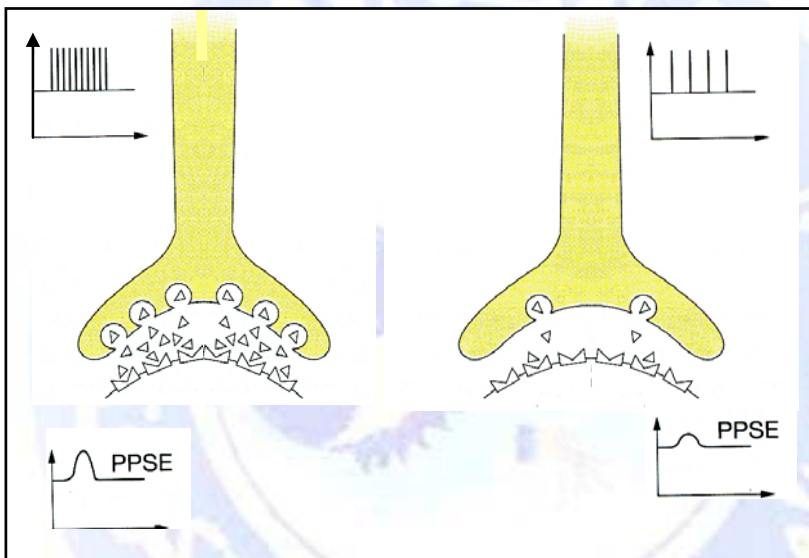
?

- يمكن للنقل المشبكي أن يختل بتدخل العديد من الجزيئات المستعملة بكثرة في الوقت الحالي إما لأغراض طبية أو في حالة الإدمان، إنها المخدرات.





:



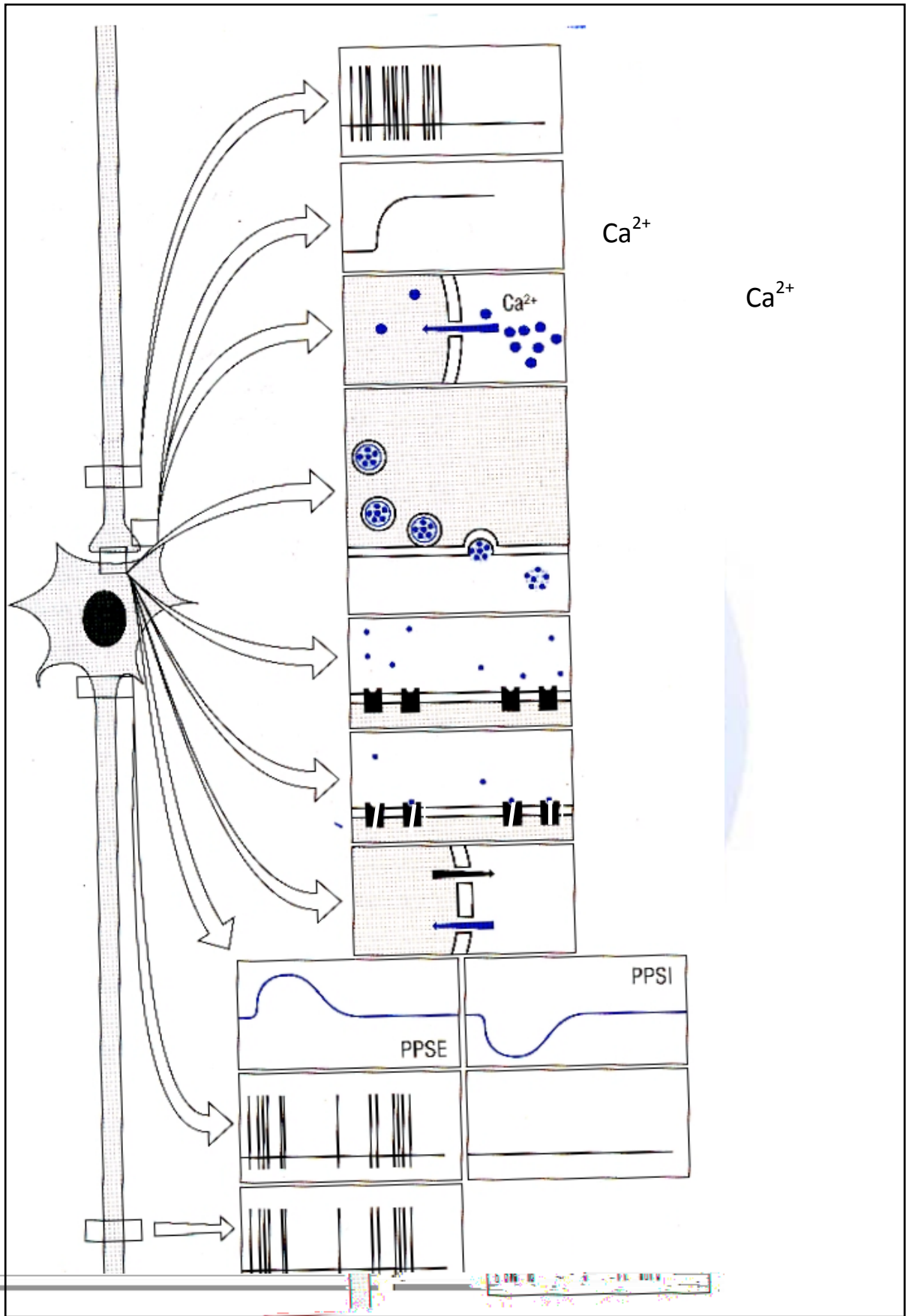
. (PPSE)

. PPSE

1

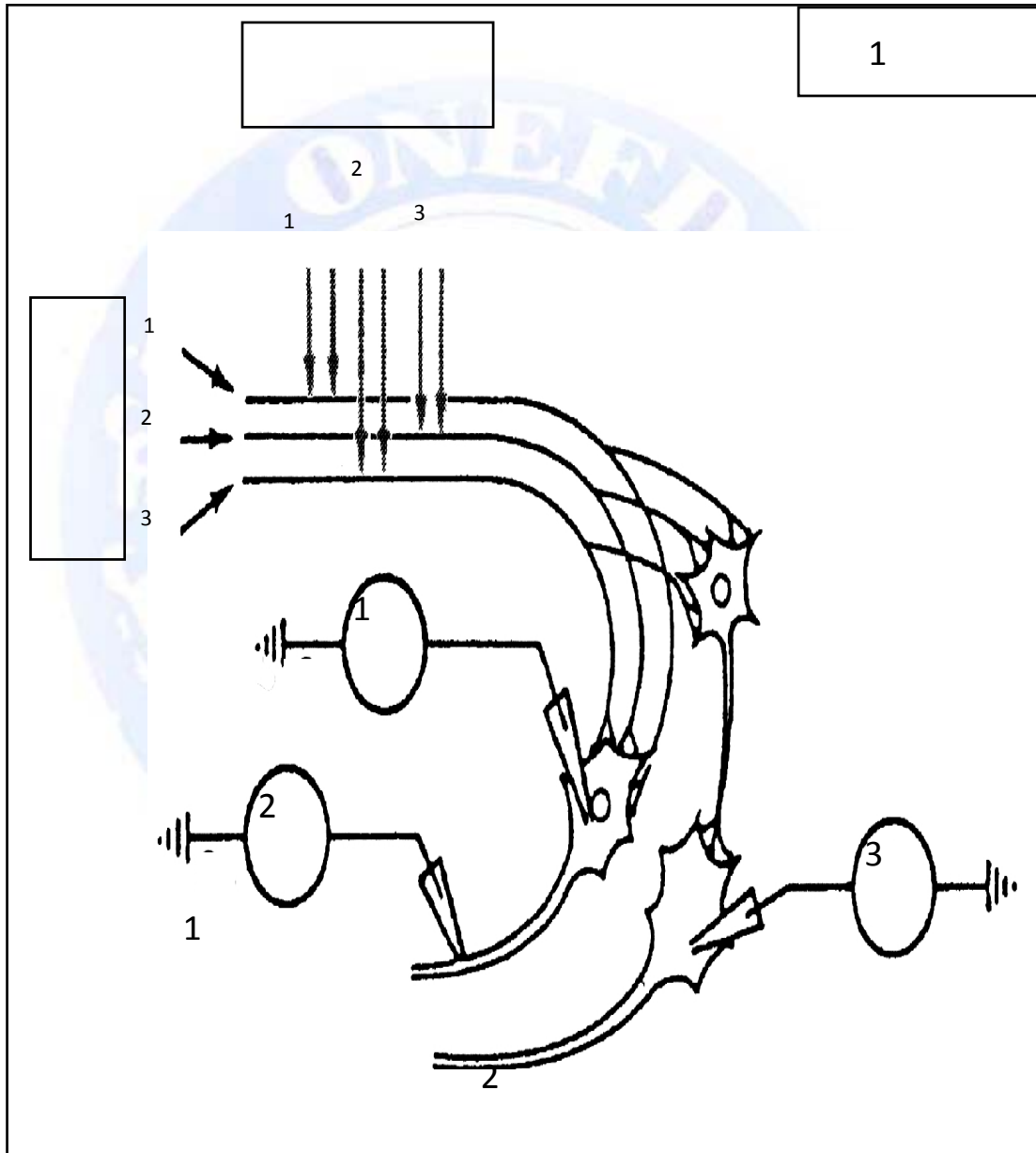
2

:

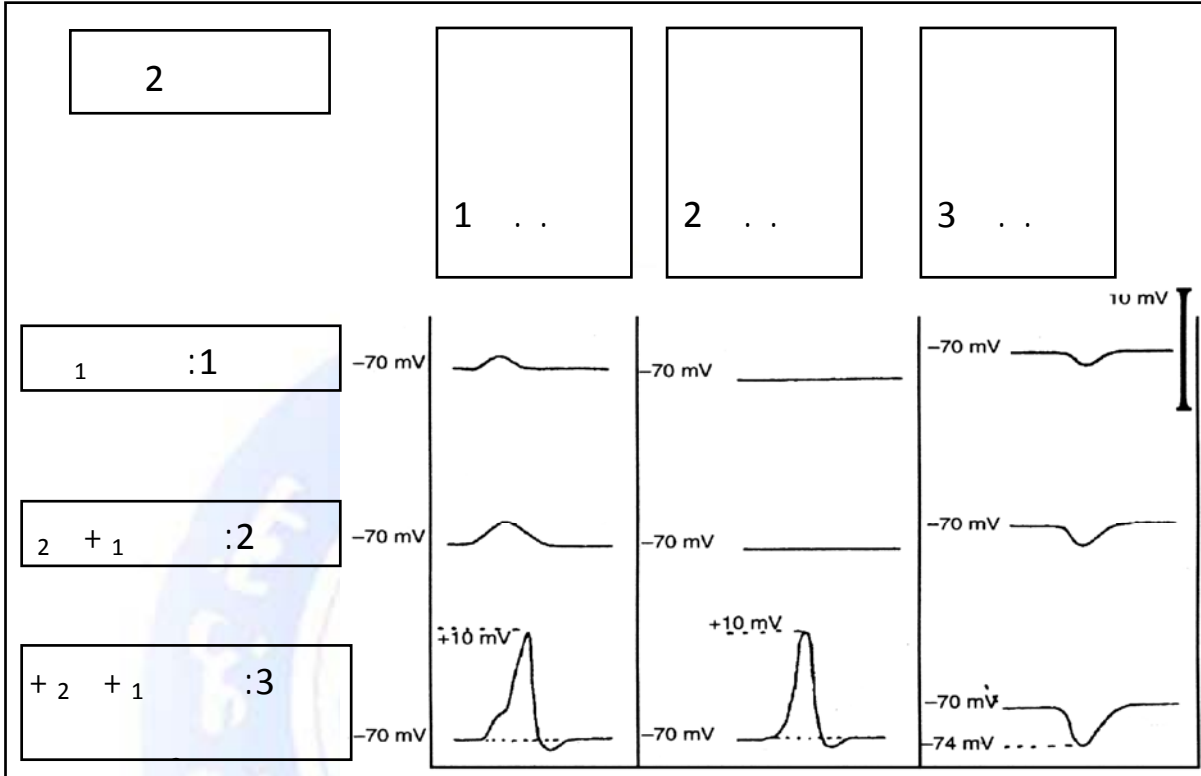


:

.(1)



(2).



1

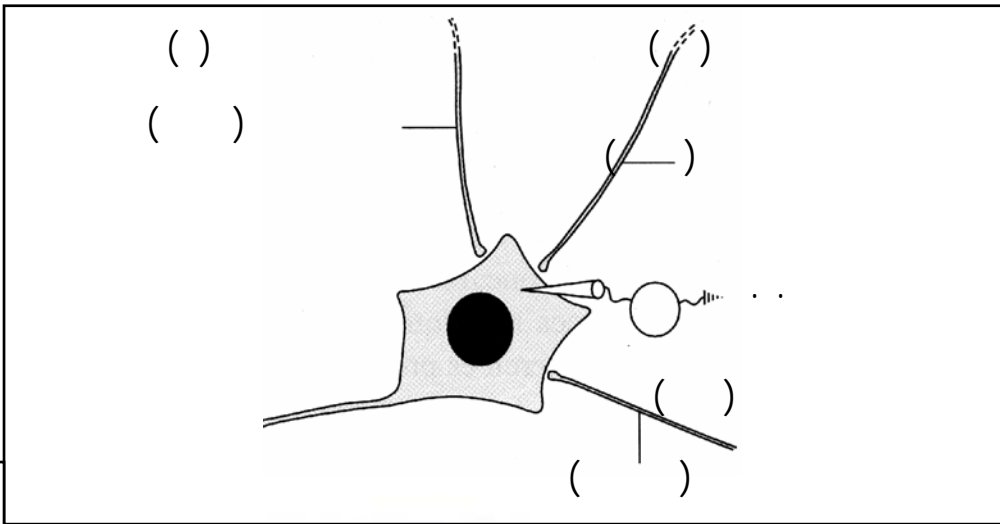
2

3

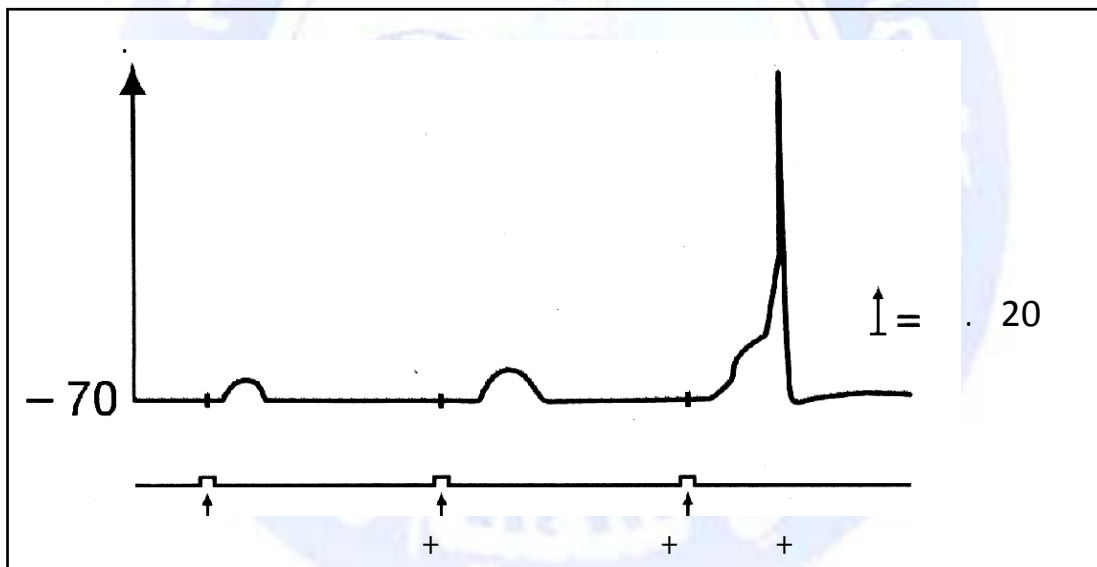
التمرين الرابع :

ننجز التركيب التجريبي الممثل بالوثيقة (1)، و نقوم بتنبيه العصبونات (أ) و (ب) و (ج) كل واحد على حدى أو في آن واحد بتنبيهات فعالة و بشدات متساوية .

1



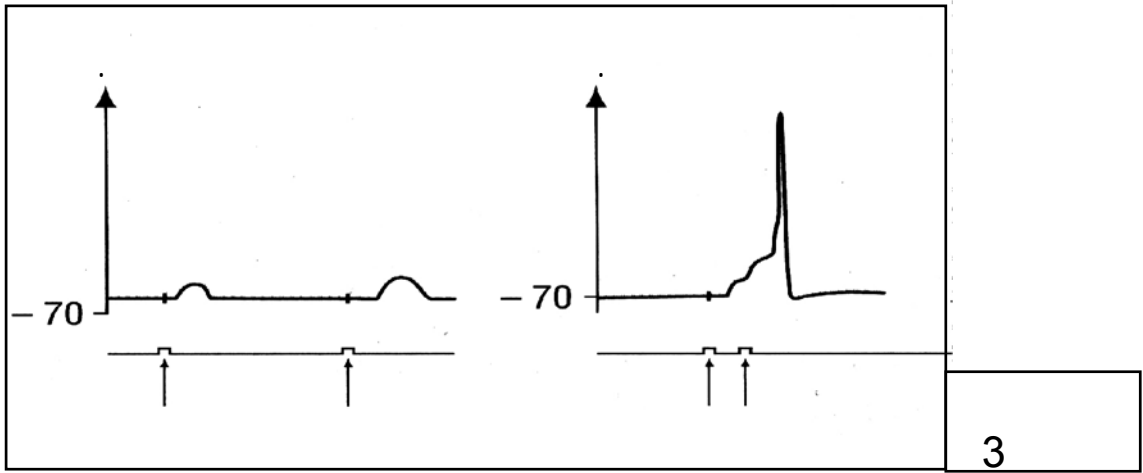
(2) (. .)



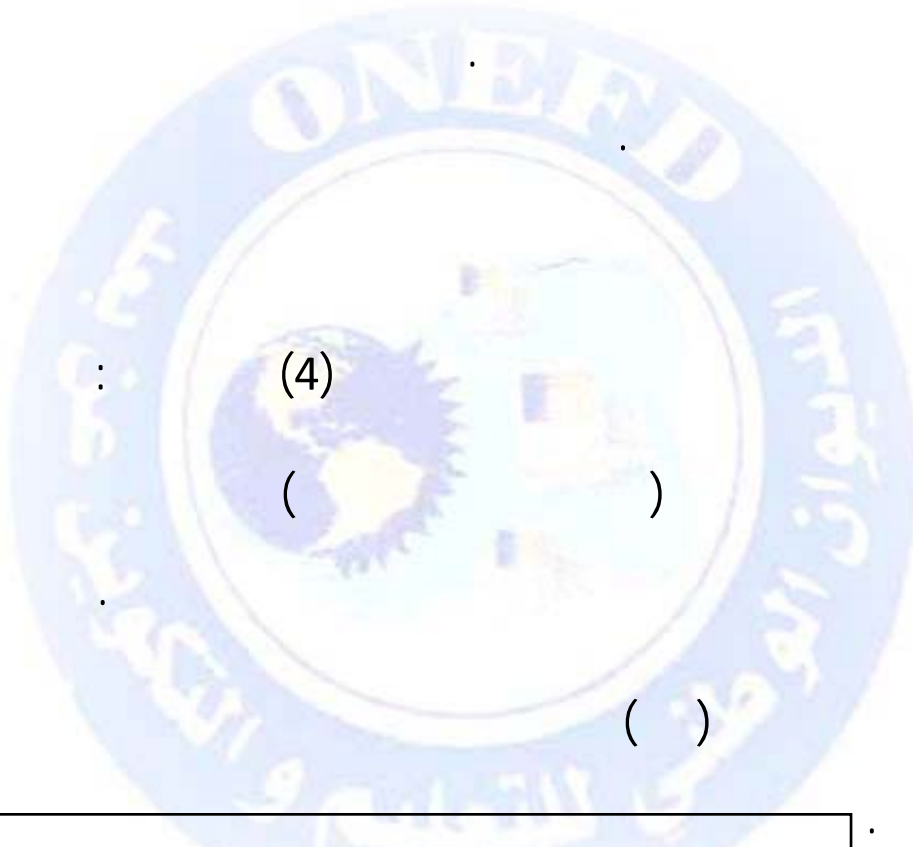
2

1

2



3

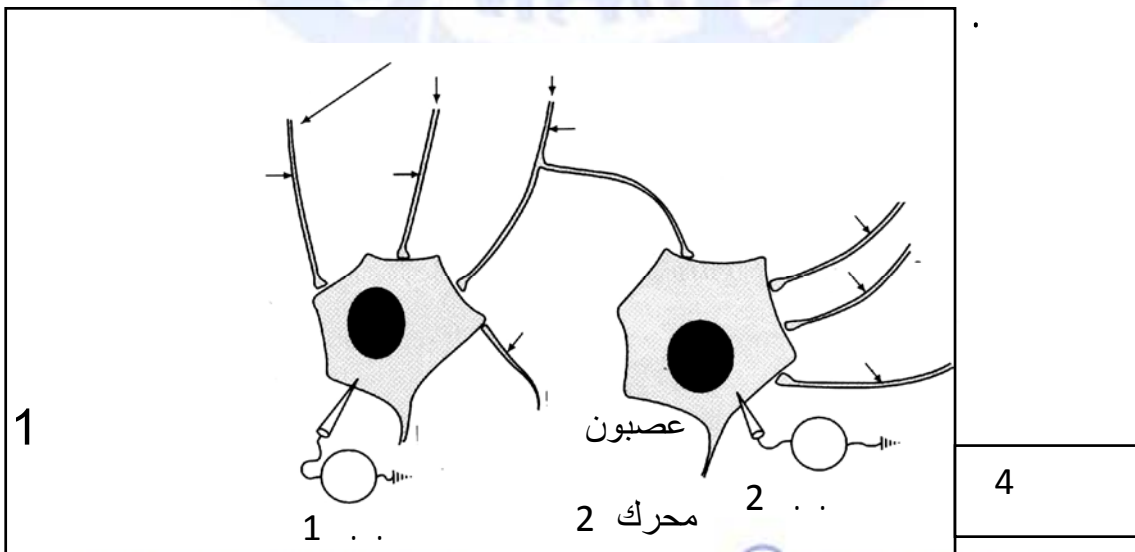


(4)

()

()

3



1

1 ...

محرك 2

2 ...

4

:

... 1 :

() ■

1 .

() ■

0.1 .

() () .

() () () () .

- على مستوى ر.ذ.م 2 :

() ■

1 .

() ■

0.1 .

() () ()

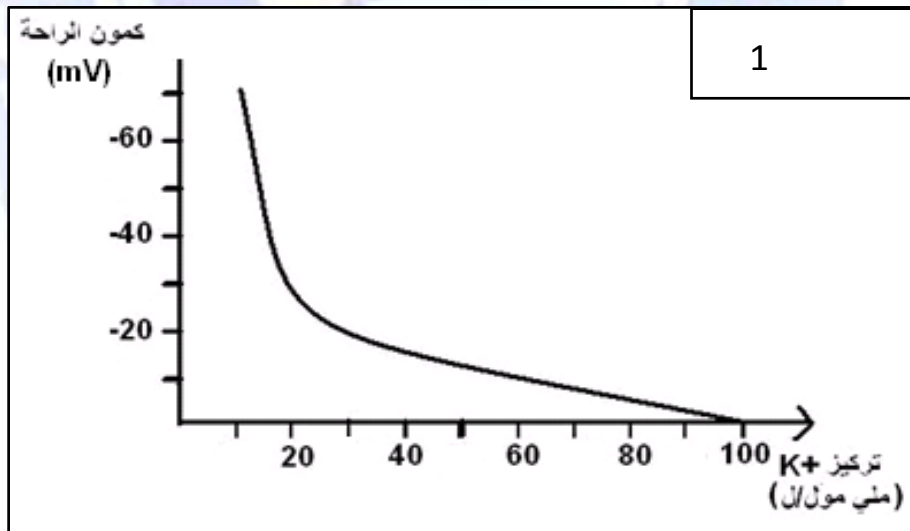
() () .

-70mv

:

: 1

(1).



K⁺

: 2

Na⁺

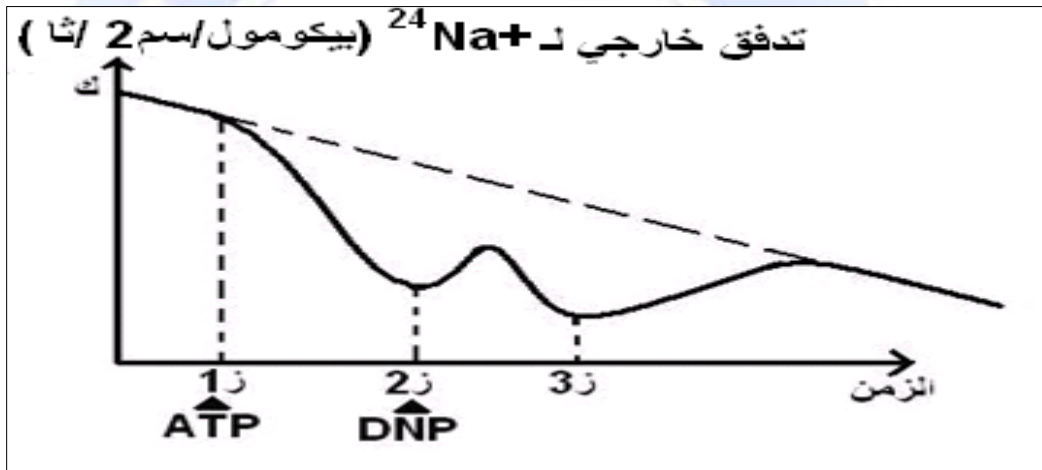
Na⁺

" " (2)

/

Na⁺

(ATP DNP)



?

.ATP

DNP

:1

*

ATP

:2

*

:3

*

1

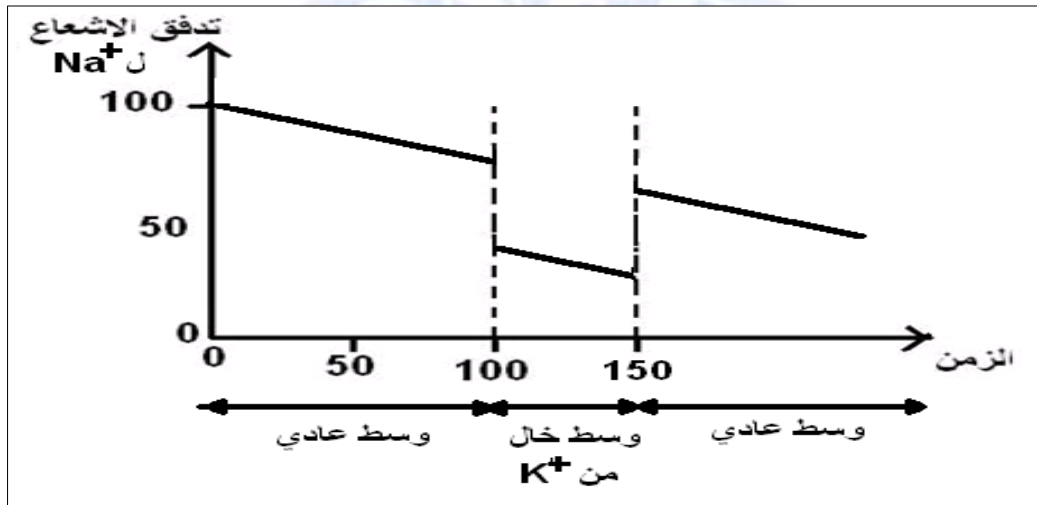
.Na⁺

2

: 3

Na^+
 K^+ 50

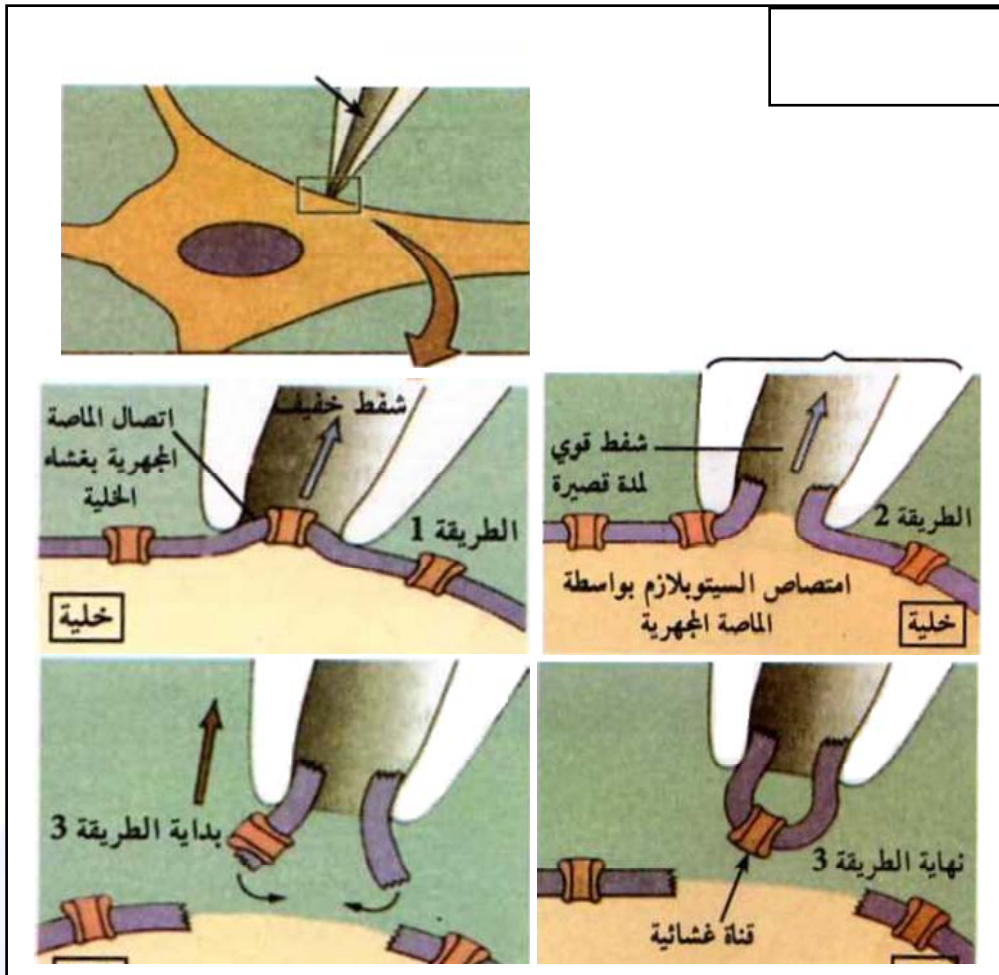
) Na^+ (3)



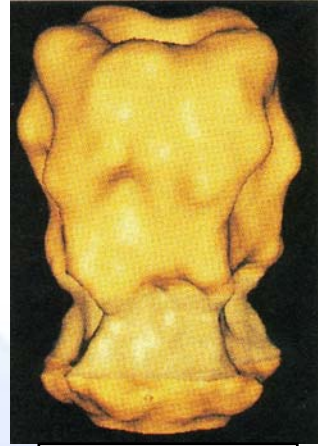
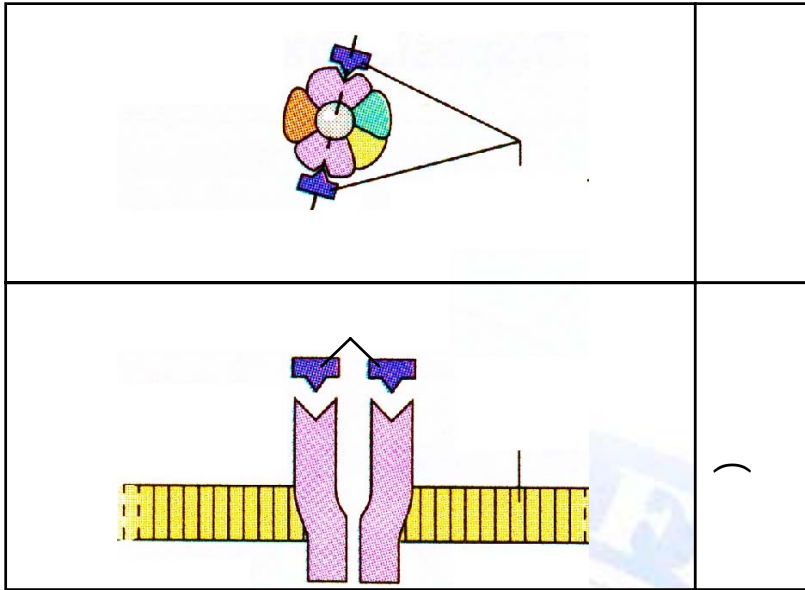
ر

. Na^+ K^+

3 2 1



(1)



(2)

(1)

(2) (1)

1

2

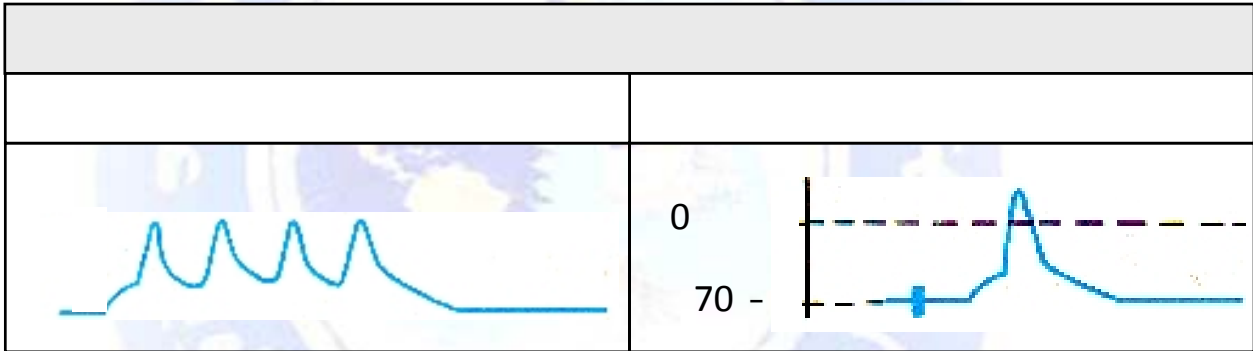
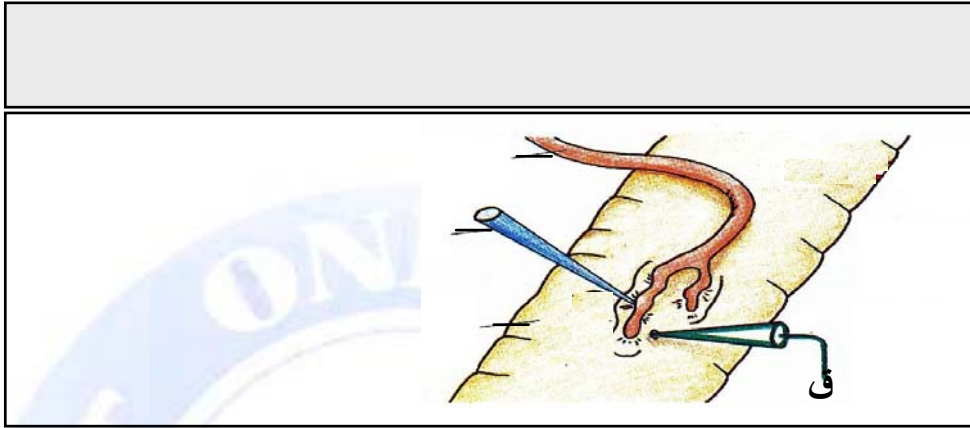
()

()

()

-

) Eserine



1

2