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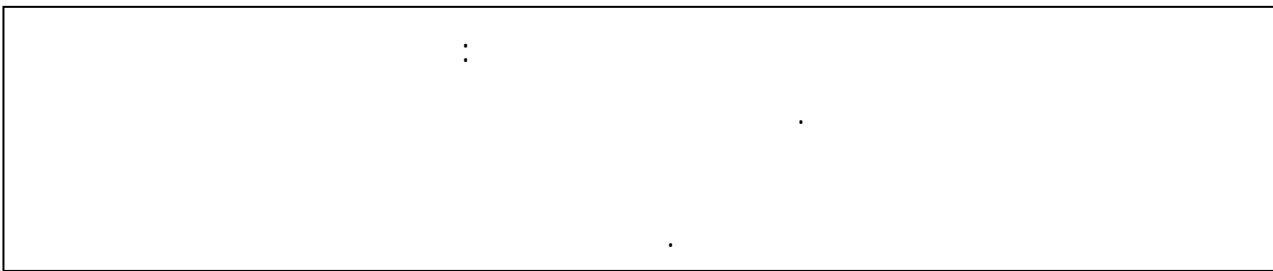
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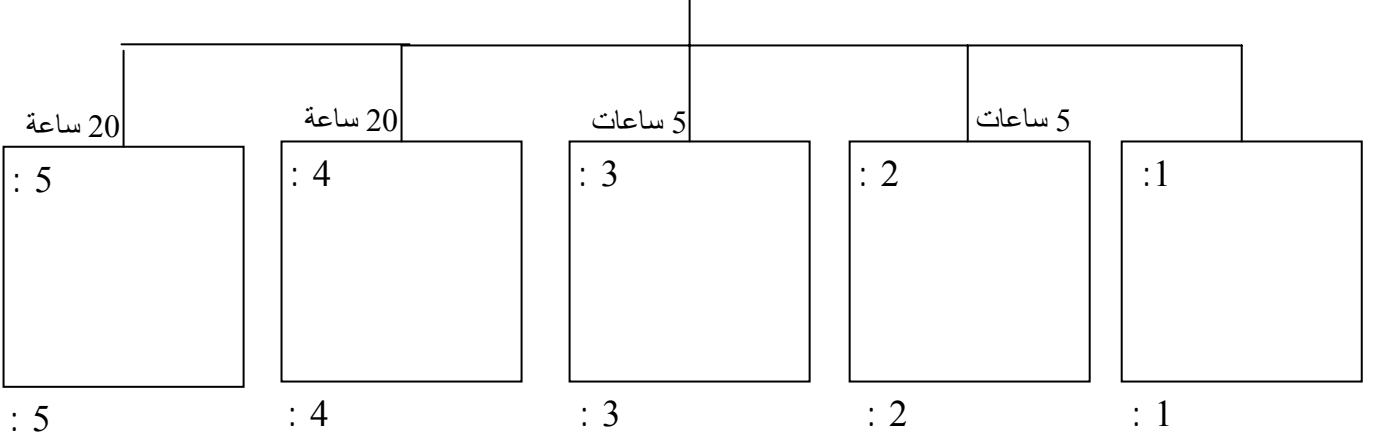
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المجال التعليمي :
التخصص الوظيفي للبروتينات
(11 أسبوع)



: 02



المجال التعليمي :

تحويل الطاقة

(5 أسابيع)

5 ساعات

: 3

10 ساعات

: 2

ATP

10 ساعات

: 1

: 3

: 2

: 1

ATP

: 03



المجال التعليمي :

التكثونية العامة

(9 أسابيع)

20 ساعات

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15 ساعات

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10 ساعات

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() () ATP: . : $C_6H_{12}O_6 + O_2 + H_2O \rightarrow CO_2 + H_2O + E$ - .. - . / /	: * () H ₂ O CO ₂ : ATP . . : ◀ يطرح . ATP * : ◦ ◦ * : :	1

<p style="text-align: center;">ATP</p> <p>(FAD NAD⁺)</p> <p style="text-align: center;">ATP</p> <p style="text-align: center;">(C₆-P)</p> <p style="text-align: center;">(C₃)</p> <p style="text-align: center;">ATP ADP</p> <p>C₆H₁₂O₆ + 2 NAD + 2 ADP → 2 C₃H₄O₃ + 2 ATP + 2 NADH, H⁺</p>	<p style="text-align: center;">/</p> <p style="text-align: center;">ATP</p> <p style="text-align: center;">(ExA0</p> <p style="text-align: center;">E_g C₆]</p> <p style="text-align: center;">E_p 2C₃ ()</p> <p style="text-align: center;">E_p أكبر من E_g ()</p> <p style="text-align: center;">(NADH, H⁺) R'(NAD⁺)</p> <p style="text-align: center;">[ATP R'H₂</p>	<p style="text-align: center;">°</p> <p style="text-align: center;">°</p> <p style="text-align: center;">°</p> <p style="text-align: center;">*</p> <p style="text-align: center;">*</p> <p style="text-align: center;">*</p> <p style="text-align: center;">*</p> <p style="text-align: center;">*</p>
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<p>--</p> <p>(E. CO₂= 0) CO₂</p> <p>(NADH,H⁺ ← NAD)</p> <p>C₄</p> <p>(C₆)</p> <p>C₆</p> <p>)</p> <p>()</p> <p>(CO₂</p> <p>ADP C₄</p> <p>(Pi) () ATP</p> <p>CO₂</p> <p>ATP</p> <p>FADH₂</p> <p>NADH,H⁺</p> <p>(NADH,H⁺)</p> <p>(FADH₂)</p>	<p>:</p> <p>:</p> <p>▪</p> <p>▪</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>*</p> <p>-</p> <p>-</p>	<p>°</p> <p>)</p> <p>. (ExAO</p> <p>°</p> <p>.</p> <p>(CO₂</p> <p>.</p> <p>ATP</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>*</p> <p>:</p> <p>*</p> <p>°</p> <p>-</p> <p>O₂ ADP, Pi, T' H₂ (NADH,H⁺)</p> <p>°</p> <p>-</p>
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<p>(O₂)</p> <p>.</p> <p>:</p> <p>O₂ + 4e + 4H⁺ → 2H₂O</p> <p>.</p> <p>ATP</p> <p>ATP ADP</p> <p>(Pi)</p> <p>.</p> <p>)</p> <p>(20</p>	<p>-</p> <p>ADP ATP</p> <p>ATP , Pi</p> <p>-</p> <p>T' H₂</p> <p>(0.32 -)(NADH,H⁺)</p> <p>(0.80 +) O₂ (0,06) (FADH₂</p> <p>-</p> <p>)</p> <p>-</p> <p>*</p> <p>◀</p> <p>ATP</p> <p>*</p>	<p>2</p>
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<p> : ATP NADH,H⁺ :) . (ATP (NAD NADH,H⁺)) (C₂ </p>	<p> * : ° ° * (NAD⁺) T ' ATP * </p>	
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