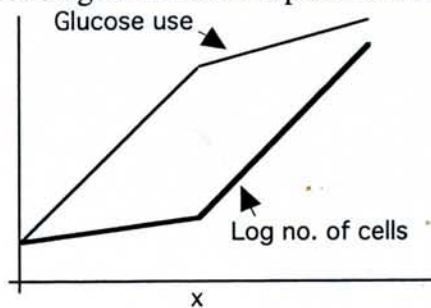


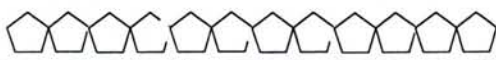
Write your name on this page and turn it in with your Scantron form.

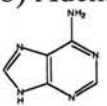
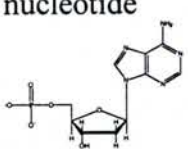
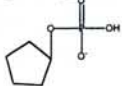
39. Explain why addition of  $O_2$  at time x had the observed effect on glucose consumption and cell numbers. (10 points)

Cells get 2 ATP/glucose without  $O_2$ ; they used more glucose to get energy needed to grow. With  $O_2$ , cells use less glucose and grow faster because they get more ATP/glucose.

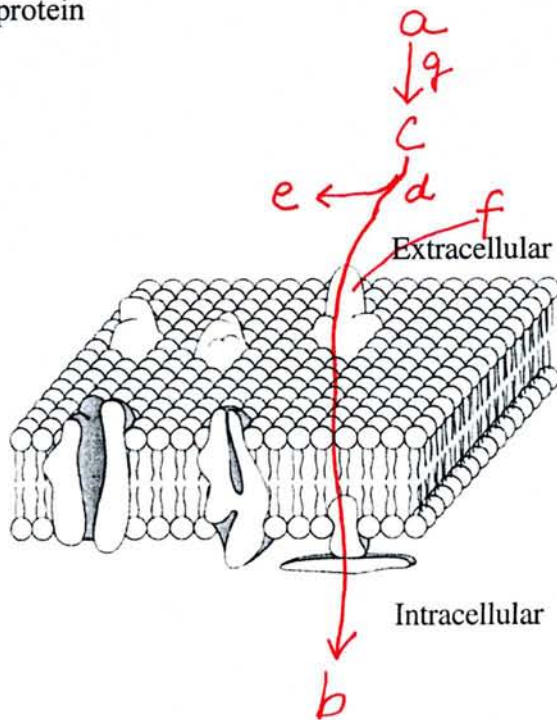


40. The plasma membrane of the flesh-eating *Streptococcus pyogenes* bacteria is shown below. This bacterium degrades DNA nets that the host makes to wall-off the bacteria. Add these labels to the diagram in the appropriate places to show DNA catabolism: (14)

a) DNA 

<p>b) Adenine</p> 	<p>c) Adenine nucleotide</p> 	<p>d) Adenine nucleotide hydrolase</p>	<p>e) Ribose 1-phosphate</p> 
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f) Adenine transporter protein  
g) DNase



**SUBJECTIVE SCORE INSTRUCTOR USE ONLY**

100	90	80	70	60
50	40	30	20	10
9	8	7	6	5
4	3	2	1	0

**PART 1**

**IMPORTANT**

- MAKE DARK MARKS
- ERASE COMPLETELY TO CHANGE
- EXAMPLE: A B C D E

**TO USE SUBJECTIVE SCORE FEATURE:**

- Mark total possible subjective points
- Only one mark per line on key
- 150 points maximum

**EXAMPLE OF STUDENT SCORE:**

100	90	80	70	60
50	40	30	20	10
9	8	7	6	5
4	3	2	1	0

	(T)	(F)	KEY
1	A	B	C D E
2	A	B	C D E
3	A	B	C D E
4	A	B	C D E
5	A	B	C D E
6	A	B	C D E
7	A	B	C D E
8	A	B	C D E
9	A	B	C D E
10	A	B	C D E
11	A	B	C D E
12	A	B	C D E
13	A	B	C D E
14	A	B	C D E
15	A	B	C D E
16	A	B	C D E
17	A	B	C D E
18	A	B	C D E
19	A	B	C D E
20	A	B	C D E
21	A	B	C D E
22	A	B	C D E
23	A	B	C D E
24	A	B	C D E
25	A	B	C D E
26	A	B	C D E
27	A	B	C D E
28	A	B	C D E
29	A	B	C D E
30	A	B	C D E
31	A	B	C D E
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35	A	B	C D E
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38	A	B	C D E
39	A	B	C D E
40	A	B	C D E
41	A	B	C D E
42	A	B	C D E
43	A	B	C D E
44	A	B	C D E
45	A	B	C D E
46	A	B	C D E
47	A	B	C D E
48	A	B	C D E
49	A	B	C D E
50	A	B	C D E

NAME	KEY
SUBJECT	Bior 230
DATE	Sp 2009
TEST NO.	2
HOUR	

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