

# Questions

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- 1 During lactic fermentation, pyruvic acid is:**
- A** reduced
  - B** oxidised
  - C** decarboxylated
  - D** phosphorylated
  - E** dephosphorylated
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- 2 Which of the following statements about glycolysis is correct?**
- A** Triose phosphate isomerase catalyses the conversion of dihydroxyacetone phosphate to 1,3-bisphosphoglycerate
  - B** When a molecule of glucose is converted to pyruvate in glycolysis, 2 NAD<sup>+</sup> are reduced
  - C** Phosphofructokinase catalyses the conversion of fructose 1,6-bisphosphate to dihydroxyacetone phosphate
  - D** When a molecule of glucose is converted to pyruvate in glycolysis, CO<sub>2</sub> is produced
  - E** In the first part, FADH<sub>2</sub> is formed
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- 3 Each acetyl-CoA molecule that enters the Krebs cycle produces:**
- A** 1 NADH, 3 FADH<sub>2</sub>, 1 GTP and 2 molecules of CO<sub>2</sub>
  - B** 3 NADH, 1 FADH<sub>2</sub>, 1 GTP and 3 molecules of CO<sub>2</sub>
  - C** 3 NADH, 1 FADH<sub>2</sub>, 1 GTP and 2 molecules of CO<sub>2</sub>
  - D** 3 NADH, 1 FADH<sub>2</sub>, 2 GTP and 3 molecules of CO<sub>2</sub>
  - E** 2 NADH, 2 FADH<sub>2</sub>, 2 GTP and 2 molecules of CO<sub>2</sub>
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- 4 Oxidative phosphorylation is a metabolic pathway:**
- A** through which the amino group resulting from the degradation of amino acids is eliminated
  - B** through which fatty acids are broken down by removing two carbon atoms at a time
  - C** which represents the final stage of the anabolism of amino acids, carbohydrates, and fatty acids
  - D** through which the energy stored in reduced coenzymes is used for the synthesis of ATP
  - E** through which fatty acid synthesis occurs
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- 5 Cytochromes are:**
- A** present in the respiratory chain
  - B** transporters of hydrogen atoms in the respiratory chain
  - C** enzymes that synthesize ATP
  - D** inhibitors of oxidative phosphorylation
  - E** cofactors of glycolysis

# Solutions

Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer
1	A	2	B	3	C	4	D	5	A	6	E	7	E	8	B	9	D	10	D		
11	C	12	E	13	C	14	D	15	A	16	C	17	E	18	A	19	B	20	B		
21	C	22	C	23	A	24	A	25	E	26	A	27	B	28	D	29	A	30	B		
31	C	32	C	33	D	34	D	35	E	36	D	37	A	38	E	39	D	40	A		
41	C	42	D	43	A	44	E	45	A	46	B	47	C	48	E	49	B	50	B		
51	C	52	B	53	B	54	B	55	A	56	E	57	C	58	E	59	A	60	D		
61	C	62	D	63	B	64	E	65	A	66	D	67	C	68	D	69	B	70	E		
71	C	72	B	73	C	74	A	75	E	76	E	77	D	78	B	79	E	80	C		
81	A	82	D	83	E	84	E	85	C	86	C	87	D	88	C	89	C	90	A		
91	D	92	D	93	A	94	E	95	A	96	B	97	B	98	C	99	A	100	D		
101	C	102	D	103	B	104	B	105	B	106	D	107	C	108	C	109	D	110	B		
111	E	112	C	113	B	114	C	115	C	116	C	117	D	118	D	119	E	120	A		
121	A	122	B	123	E	124	B	125	E	126	B	127	B	128	C	129	D	130	C		
131	E	132	C	133	E	134	E	135	B	136	E	137	C	138	A	139	A	140	A		
141	B	142	C	143	D	144	C	145	E	146	C	147	D	148	E	149	A	150	A		
151	A	152	C	153	A	154	D	155	A	156	C	157	B	158	B	159	D	160	E		
161	A	162	B	163	C	164	E	165	B	166	D	167	E	168	D	169	A	170	D		
171	A	172	E	173	E	174	D	175	A	176	C	177	D	178	B	179	A	180	E		
181	E	182	E	183	C	184	A	185	B	186	E	187	C	188	D	189	E	190	B		
191	D	192	C	193	A	194	E	195	D	196	C	197	A	198	A	199	A	200	C		

Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer	Question	Answer
201	B	202	A	203	D	204	D	205	A	206	D	207	C	208	B	209	B	210	A
211	A	212	A	213	C	214	B	215	E	216	E	217	D	218	B	219	C	220	D
221	C	222	A	223	A	224	B	225	A	226	B	227	D	228	C	229	E	230	E
231	A	232	A	233	D	234	D	235	E	236	A	237	C	238	C	239	A	240	A
241	D	242	B	243	A	244	B	245	D	246	B	247	B	248	E	249	E	250	B
251	A	252	B	253	A	254	B	255	E	256	B	257	C	258	D	259	D	260	C
261	B	262	A	263	E	264	A	265	B	266	C	267	A	268	A	269	A	270	C
271	D	272	C	273	D	274	D	275	A	276	A	277	C	278	B	279	B	280	B
281	C	282	B	283	E	284	D	285	B	286	A	287	C	288	E	289	B	290	C
291	B	292	C	293	D	294	B	295	B	296	C	297	E	298	E	299	B	300	A
301	E	302	D	303	A	304	C	305	A	306	E	307	A	308	A	309	C	310	B
311	C	312	D	313	E	314	B	315	D	316	B	317	C	318	A	319	A	320	D
321	C	322	A	323	E	324	D	325	C	326	A	327	A	328	B	329	C	330	E
331	A	332	A	333	C	334	B	335	A	336	B	337	A	338	E	339	A	340	C
341	B	342	B	343	A	344	B	345	C	346	A	347	D	348	B	349	E	350	A
351	E	352	A	353	A	354	B	355	E	356	A	357	E	358	B	359	A	360	D
361	B	362	D	363	E	364	A	365	C	366	C	367	D	368	A	369	C	370	A
371	C	372	D	373	A	374	D	375	B	376	C	377	B	378	D	379	B	380	B
381	C	382	A	383	A	384	C	385	D	386	C	387	B	388	C	389	B	390	E