# WGU Biochemistry OA

2, 3, BPG - CORRECT ANSWER ✅: -produced in our body naturally

-similar function to H+ (stabilizes the T state)

-produced in 2 cases (high altitudes & pregnancy)

Acetyl CoA - CORRECT ANSWER ✅: -2 carbons

-attached to coenzyme A (to make sticky we need biotin)

Active site - CORRECT ANSWER ✅: -location on enzyme where substrate binds

Aggregation - CORRECT ANSWER ✅: -proteins clump together in abnormal way (d/t hydrophobic interactions)

Amino acid - CORRECT ANSWER ✅: -has amino group (-NH2)

-& a carbonyl group (-COOH)

-cx. Based on side chains

Amino acids - CORRECT ANSWER ✅: -Non-polar (hydrophobic)

-Polar charged

-Polar uncharged



Anneal - CORRECT ANSWER ✅: -step 2 of PCR

-use DNA primers that match the gene to find only the gene we want (ex: to find BRCA gene)

Are enzymes specific? - CORRECT ANSWER ✅: Yes

Assuming 100% reaction efficiency, how many DNA copies are created after the completion of 4 complete PCR cycles? - CORRECT ANSWER ✅: 16

Base excision repair - CORRECT ANSWER ✅: -only 1 nucleotide damaged

- remove and replace

Beta oxidation - CORRECT ANSWER ✅: -breakdown of fats

-occurs when we eat fats, or exercise

-break beta bonds

Beta oxidation - CORRECT ANSWER ✅: Break fats into acetyl CoA

Bohr Effect chart (low pH) - CORRECT ANSWER ✅: C- High CO2

H- High H+

A- Acidic

R-Release of O2(rt. Shift)

T- tense state (in tissues)

Carbohydrate metabolism - CORRECT ANSWER ✅: 1. Glycolysis

2. Citric acid cycle (aerobic)

3. Electron transport chain (aerobic)

4. Firmentation (anaerobic)

5. Gluconeogenesis (anaerobic)

Carbohydrates - CORRECT ANSWER ✅: -linear

-CH2O formula

-energy=glucose

-structure=cellulose

Catalyst - CORRECT ANSWER ✅: Substance that will decrease the activation energy needed to start a chemical reaction

Chaperones - CORRECT ANSWER ✅: Help fold proteins



Chemical reaction - CORRECT ANSWER ✅: -absorb and release energy

-activation energy

-energy is released (heat & light) when bonds are broken.

CO - CORRECT ANSWER ✅: -carbon monoxide (1 O2)

-poison!

-binds to hgb on the heme & blocks O2 from binding

-has 200 x higher affinity

-a competitive inhibitor

-puts hgb into the R state (makes hgb want to bind hgb even more)

-this is why it is so dangerous, our hgb picks it up instead of O2)

Competitive inhibition - CORRECT ANSWER ✅: -medicine/drugs

-competitive inhibitor will bind to active site to prevent substrate from binding