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Paper code : 37318

Key

Q.1(a) 4

(b) aspirin, 2,4-dinitrophenol etc

(c) Proper definition process of breakdown of Glycogen to glucose for energy requirements.

(d) aspartic acid and carbamoyl , PRPP (any two)

(e) isocitrate lyase and malate synthase

(f) $FADH_2$, $NADH + H^+$, Cytochromes, ubiquinones, iron-linked cysteine proteins

(g) Glycogenic amino acids, lactate, glycerol, propionate, C_{15}-C_{17} fatty acid, alanine.

(h) 24+14=38~~+36+108=144~~ 146

(i) cyclooxygenase and lipoxygenase

(j) 3-ketoacyl-CoA synthase, 3-ketoacyl-CoA reductase, 3-hydroxyacyl CoA dehydrase, 2-trans enoyl CoA reductase.

(k) Adenylosuccinate synthase, adenylosuucinase

(l) Terbinafine- squalene epoxidase. Fluconazole- Lanosterol 14-α-demethylase

Q. 2 (a) Each correct structure – 0.5M each correct name – 0.5M

(b) correct enzyme name – 1M each

Q. 3 (a) 1.5M for structures, 1.5M enzyme, coenzyme and reversible/irreversible

(b) 2M for structures, 1.0M enzyme, coenzyme

(c) definition 0.5M, structures 1.5

(d) structures 1.5M enzyme &coenz name 0.5

(e) structures 1.5M enzyme &coenzname 0.5

Q. 4 (a) Structures of reactant, product and all oxidized & reduced multiprotein complexes all 0.5M each

(b) 2M for structures, 1.0M enzyme, coenzyme

(c) All structures 0.5M each

(d) All steps with structures 3M

(e) define 1M Difference 1M

Q. 5 (a) entire cycle 3M structure 0.5 each and rest M for enzymes

(b) Entire oxidation steps 2M ATP calculation 1M

(c) Definition 0.5M, sites 1.5M

(d) structures 1.5M enzyme &coenz name 0.5

(e) structures 1.5M enzyme &coenz name 0.5

Q. 6 (a) Entire written 3M

(b) Structures 2M, 1M enzyme and coenz

(c) all structures correct 2M

(d) structures 1.5M enzyme &coenz name 0.5

(e) Atorvastatin, 5-fluorouracil