





**Q. 3 A** Justify: Amino acids are degraded to metabolites that integrate into Krebs cycle. **08**

**Q. 3 B** Discuss the metabolic disorders associated with defects in urea cycle. **07**

**OR**

**Q. 3 C** Describe the mechanism of Transamination of amino acids. **08**

**Q. 3 D** Explain the structure of glutathione and state its significance. **07**

**Q. 4 A** Describe beta oxidation of saturated fatty acids. **08**

**Q. 4 B** Give detailed account of Purine catabolism. **07**

**OR**

**Q. 4 C** Elaborate reactions involved in the  $\alpha$ -oxidation of a branched-chain fatty acid. **08**

**Q. 4 D** Explain three additional reactions involved in complete oxidation of odd number fatty acid. **07**

**Q. 5** Write Short notes on **any three** of the following: **15**

**a.** Metabolic disorders associated with pentose phosphate pathway.

**b.** Role of coenzyme Q in ETC.

**c.** Non oxidative deamination.

**d.** Role of Cyclic AMP-dependent protein kinase (PKA) in triacylglycerol mobilization.

**e.**  $\omega$ - oxidation of fatty acid.

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