Q.P. Code :02255

[Time: Three Hours] **[Marks:80]**

Please check whether you have got the right question paper.

N.B: 1. All questions are compulsory.

Q.1
A. _____number of ATP are produced when two moles of acetyl CoA are consumed in TCA cycle. 01
B. Give two example of physiological uncouplers for ETC. 01
C. Write complete name of branching enzyme involved in glycogenesis 01
D. Name of drug which inhibits thymidylate synthase. 01
E. In fatty acid biosynthesis_____ shuttle is involved. 01
F. Name the drug which modulate uric acid synthesis 01
G. Give names of two enzymes which are only present in glyoxalate cycle and not in TCA cycle. 02
H. Define substrate level phosphorylation with an example 02
I. State significance of pentose phosphate pathway. 02
J. Draw structures of cholesterol 02
K. Calculate the number of ATP formed in B-oxidation of linoleic acid. 02
L. Enlist names of pathway for eicosanoid synthesis 02
M. Enlist precursors for purine synthesis. 02

Q.2 A Write names and structure of subtracts and products for the following enzyme catalyzed reactions (any four) 08
i. Glyceraldehydes dehydrogenase
ii. Gluconolactone hydrolase
iii. Thiokinase
iv. Prostacycline synthase
v. Orotidylic acid decarboxylase

B Give name of enzyme catalyzing the following conversation 04
i. dUMP to dTMP
ii. phosphoenol pyruvate to pyruvate
iii. succinyl CoA succinate
iv. glyoxalate to malate

Q.3
A. Discuss series of reaction in Kreb's cycle for conversation of oxaloacetate to D-kctoglutarate 03
B. Write the three rate limiting steps for reversal of glycolsis. 03
C. Depicts utilization of ketole bodies as an alternatives pathway of energy. 02
D. Give regulation for DENOVO biosynthesis of purine nucleotides 02
E. Write reaction for biosynthesis of PGH_2 from arachidonic acid 02

Q.4
A. Describe the biosynthesis of palmitate from malonyl ACP 03
B. Depict schematically election transport chain 03
C. Explain term salvage reaction with an example 02
D. Write reaction catalyzed by transadolase 02
E. Give the formation of AMP from IMP 02

TURN OVER

Q.5	A.	Discuss the preparatory phase of glycoysis	03
	B.	Explain B-oxidation of fatty acid with odd numbers of carbon atoms	03
	C.	Discuss oxidative phosphorylation	02
	D.	Outline steps involved in conversion of fatty acyl CoA to β-hydroxyacyl CoA	02
Q.6	A.	Discuss glycogenolysis	03
	B.	Discuss biosynthesis of OMP	03
	C.	Give reaction for rate limiting step of cholesterol biosynthesis with inhibitor drug.	02
	D.	Explain glycerol phosphate shuttle involved in transferring NADH to mitochondria	02
	E.	Give possible biosynthetic route for lecithin	02

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