QP Code : 75571

Maximum Marks:75

Duration 3 Hours

Instructions:
1. All questions are compulsory
2.All questions carry equal marks
3Attempt only one question out of b & c
4. Attempt only one question out of d &
5. Illustrate the answers with suitable diagrams wherever necessary

Q.I a) Attempt any **Two**

i) State the significance of HMP shunt (4)
ii) Enlist the glycogen storage diseases.
iii) Give difference between aerobic & anaerobic glycolysis.
iv) Enumerate different enzymes & coenzymes of pyruvate dehydrogenase complex.

b) Give an account of biosynthesis of glycoprotein's and its significance (5)

OR

c)Discuss uronic acid pathway & its significance

d) Describe Gluconeogenesis & its significance (6)

OR

e) Discuss in detail glycogen metabolism & its regulation.

Q.II a)Attempt any **Two**

i) Name any two inborn errors of lipid metabolism with their enzyme defect. (4)
ii) Enumerate the characteristics of extramitochondrial fatty acid synthetase complex.
iii) Describe the functions of chylomicrons and HDL.
iv) Give four functions of prostaglandins.

b) Discuss steps in β – oxidation & energy transaction with reference to Palmitic acid. (5)

OR

c) Outline the pathway of phosphatidic acid synthesis. How is it converted to lecithin.

d) Discuss biosynthesis of cholesterol & its regulation. State the functions of cholesterol. (6)

OR

e) Describe formation & fate of ketone bodies.

Q.III a)Attempt any **Two**

i) Enlist four disorders of urea cycle & state their defective enzymes. (4)
ii) Name the glucogenic & ketogenic amino acids
iii) Diagramatically explain the biosynthesis of creatine & creatinine.
iv) Give purine salvage pathway. State the tissues where salvage pathway take place.

b) Give an account of phenylalanine & tyrosine metabolism & explain the inborn errors of metabolism associated with them. (5)

OR

c) Explain transamination, deamination & transmethylation with suitable examples.

d) Discuss denovo synthesis of purine & its regulation. (6)

OR

e) Describe synthesis & regulation of UMP & UTP

3BB7988552D430087D4993C39A8BF59A

Q.IV a)Attempt any **Two**

i)Give derivatives of ectodermal germ layer (4)

ii) State significance of parathyroid hormones

iii) Give various secondary messengers involved in protein hormone action.

iv) Name tropic hormones of anterior pituitary

b) Give an account of Growth hormone functions and abnormilities associated with it. (5)

OR

c) Describe chemistry, mechanism of action , metabolic effect and disorders of hormones of adrenal cortex .

d) How stem cells employed for development of transgenic animals. (6)

OR

e) Discuss first few weeks of embryogenesis after fertilization till closing of neural tube.

Q.Va) Attempt any **Two**

i) Explain the factors affecting absorption of iron (4)

ii) Give functions of any two trace elements.

iii) What is Addisons disease?.

iv) Give normal range of serum Na, K & Chloride.

b) Explain Visual cycle and role of VitA Discuss disorders associated with it . (5)

OR

c) Explain structure of neuron and mechanism of transmission of nerve impulse.

d) Describe Structure and functions of contractile proteins of muscle.Explain biochemical events occur during muscle contraction (6)

OR

e) Describe bone structure,composition and formation. Explain factors affecting bone metabolism.

3BB7988552D430087D4993C39A8BF59A