

2020

PHYSIOLOGY – HONOURS

FOURTH PAPER

FULL MARKS- 25

TIME – 1 HOUR

(Answer Question no. 1 and any two of the rest)

1. Write a short note (**any 1**) **5**
 - a) Density gradient ultra centrifugation
 - b) Principle of Radioimmuno Assay (RIA)
 - c) Autoradiography
 - d) SDS -page

2. a) State the significance of Glucose – Alanine cycle.
b) State the origin and synthesis of nitric oxide (NO) in human body . Mention its physiological importance.
c) What do you understand by oxidative decarboxylation? $2+(2+2+1)+3$

3. How does TCA cycle hold a key position in Carbohydrate, Protein and lipid metabolism?
 $4+4+2$

4. a) How does fatty acid oxidation inhibit glycolysis?
b) What is Malonyl Co A? How does it synthesized in human body?
c) How does excess dietary cholesterol affect its endogenous biosynthesis? $2+(2+3)+3$

5. a) Mention two major differences between Prokaryotic and Eukaryotic protein synthesis.
b) What is Replication bubble?
c) What do you understand by Recombinant DNA?
d) State three Important Properties of cancer cells. $2+2+3+3$

6. a) Discuss the role of Carnitine in Beta oxidation of fatty acid.
b) Describe the role of Carbamyl phosphate synthase I in urea formation.
c) Write a note on Purine Salvage pathway. $3+3+4$