

NATIONAL COUNCIL FOR HOTEL MANAGEMENT
AND CATERING TECHNOLOGY, NOIDA
ACADEMIC YEAR – 2014-2015

COURSE : 1st Semester of Post Graduate Diploma in
Dietetics & Hospital Food Service
SUBJECT : Applied Bio-Chemistry
TIME ALLOWED : 02 Hours MAX. MARKS: 50

(Marks allotted to each question are given in brackets)

Q.1. Discuss the mechanism of metabolic fuel supply in starving state. (10)

Q.2. How are enzymes classified according to international union of bio-chemistry? Give an example of each class. (10)

Q.3. What are the hormones of the adenohypophysis and the neurohypophysis? Explain the role of **any one** of these hormones in our body.

OR

How steroid hormones carry messages between tissues? (5)

Q.4. Draw the complete cycle of glycolysis.

OR

Draw the synthesis cycle of glycogen from glucose. (5)

Q.5. Write short notes on the following:

(a) Cholesterol uptake by receptor mediated endocytosis.

(ii) Ammonia is toxic to animals.

(2 ½ + 2 ½ =5)

OR

What is EC number of an enzyme and what does it signify? (5)

Q.6. How ketone body formation take place in human body?

(5)

Q.7. Make the structure of the following carbohydrates:

- (a) Starch
- (b) Hyaluronic acid

OR

- (a) Cellulose
- (b) Insulin

(2 ½ + 2 ½ =5)

Q.8. Explain the following in one word:

- (a) An example of a peptide hormone.
- (b) Which coenzyme involved in carboxyl group transfer?
- (c) During vigorous exercise, what is the end product produced by pyruvate?
- (d) Name the precursors of lipid biosynthesis.
- (e) Name the pathway which helps in fructose metabolization.

(5x1=5)
