

2020**PHYSIOLOGY****Course : 106.4****(Human Nutrition and Dietetics)**

Full Marks : 40

Time : 2½ Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*Answer any **two** questions of the following: 20×2=40

1. Discuss the process of biochemical adaptation to starvation focusing the stages, metabolism and organs in this concern. 20
2.
 - a) State the goals of diet management in general.
 - b) Mention the major steps for computation of calorie requirement of an individual.
 - c) Formulate a diet chart using the following information:
 - i) Daily energy requirement 2500 kcal
 - ii) BMI = 35
 - iii) Goal – to lower body weight by 1 kg/wk
 Given, 1kg loss is equivalent to loss of 7000 kcal 4+6+10=20

[Turn over]

3. Answer **all** questions: 2×10=20

- a) Define nutrition, diet and food.
 - b) What is the relation between kcal and kj?
 - c) How amylose differs from amylopectin?
 - d) Why honey is safe for diabetic individual?
 - e) What happens of ingested glucose when liver and muscle are full with glycogen?
 - f) What is hydrogenation of fat?
 - g) Give one example each of saturated, monounsaturated and polyunsaturated fatty acid.
 - h) Name the proteins present in wheat and meat.
 - i) Name the essential amino acid lacking in maize, soya beans and wheat.
 - j) Breakdown of how much protein (gm) generates 1gm nitrogen?
4.
 - a) Name the three major electrolytes and mention their functions.
 - b) Give a flow chart showing the deliberation of food iron to muscle, bone marrow and liver. 10+10=20

Submit your answer in PDF format to:**gorapaltan@gmail.com****cc: physiologyfirstsemexam2021@gmail.com**