

WEST BENGAL COUNCIL OF HIGHER SECONDARY EDUCATION

SUBJECT: NUTRITION (NUTN)

CLASS – XI

SEMESTER – I

FULL MARKS: 35

[illegible]

	<p>II. Proteins in Nutrition :</p> <ul style="list-style-type: none"> Protein definition. Amino acids -definition, Amino acids as structural units of Protein. General structural formula of amino acids, peptide bond and formation of dipeptide. Protein precipitation, coagulation (denaturation) Nutritional classification of amino acids- Essential and non-essential amino acids Dietary sources and daily requirements Classification of proteins according to source of origin, structure and nutritive quality. Vegetable protein Vs. Animal protein Physiological functions of protein. Deficiency and excess intake effects Nitrogen Balance(Elementary concept) <p>Assessment of protein quality-PER, DC, BV, NPU and chemical score (elementary concept), Reference protein.</p> <p>III. Fats and oils in Nutrition :</p> <ul style="list-style-type: none"> Fats definition, dietary sources, daily requirement Chemical structure of Fat (as a compound of fatty acid and glycerol) Chemical properties of Fat namely Saponification, Hydrolysis, Hydrogenation, Rancidity. Physiological functions of Fat Classification of fats according to dietary sources, visibility, state at room temperature and chemical structure (elementary) Vegetable oil vs. Animal Fats Fatty acids as component of fat molecules (Elementary concept of the following Nutritional classification of fatty acids-Essential Fatty Acids (EFA), Saturated Fatty acids (SFA), Unsaturated Fatty Acids (UFA). Poly Unsaturated Fatty Acids (PUFA) omega 3 and 6 -nutritional significance, Mono Unsaturated Fatty Acids (MUFA), Trans fatty acids Cholesterol-types in (elementary concept), serum normal serum level of total Cholesterol. Effect of excess level. 	15	
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Semester I:

CLASS TYPE	HOURS
Theory Classe	60
Practical Classes	40
Remedial/Tutorial/Home Assignments	10
TOTAL	110