

**BHARATI VIDYAPEETH  
(DEEMED TO BE UNIVERSITY), PUNE, INDIA  
Ph. D. Entrance Test – 2026  
SECTION-II: NUTRITION - 35 Marks**

**Basics of nutritional biochemistry**

Carbohydrates, fat, proteins, and their functions, Energy calculations, Micro and macro-nutrients and its functions, vitamins (water and fat soluble), Fibre (crude and dietary), Water, Digestion and absorption of nutrients, bioavailability. Fat and carbohydrate metabolism, Protein metabolism, micronutrient metabolism, Drug nutrient interactions, Enzymes and hormones

**Macro, macro nutrients and trace element**

Food sources – general and specific sources. Relevance and essentiality – involvement in biochemical reactions and nutritional implications. Assessment of nutriture and analysis in food materials. Toxicity and deficiency - levels, symptoms, health consequences and their management.

**Clinical Nutrition and Dietetics**

Introduction to clinical nutrition, clinical biochemistry, therapeutic modulation of diet, nutrition for underweight and malnutrition, overweight. Nutrition during pregnancy, lactation infants, gastrointestinal disorders, cardiovascular diseases, kidney and liver disorders, nutrition in degenerative diseases, nutrition in special condition

**Food Science**

Food science & technology: Product development, Stability study, Sensory evaluation, physicochemical characterization, proximate analysis

Food processing: Cereals and Millets, Legumes, oilseeds and Pulses and sugars, Milk & milk products and fats, Egg, fish, poultry and meat, Vegetables and fruits

**Community nutrition**

Epidemiology of nutritional disorders, nutritional assessment, methodologies of nutritional assessment, regulatory guidelines in combating malnutrition, Challenges to community nutritional status, community nutritional program

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