I Food Technology


II Dairy Technology

III Veterinary Sciences


IV Food Safety and Allied Laws


V Nutritional Biochemistry and Food Analysis

Chemical composition of food: Carbohydrates, lipids, proteins, fiber, vitamins, and minerals – characteristics, sources, physiological and biochemical functions, daily requirement, digestion and absorption. Biological value of proteins (BV), Protein efficiency ratio (PER), Digestability coefficient, Net protein Utilization, Net Protein Ratio(NPR), Chemical Score, Free Radicals and Antioxidants. Energy value of foods, Respiratory Quotient (RQ), Determination of Basal Metabolic Rate (BMR), Determination of energy metabolism during work, Energy expenditure for various types of activities, Recommended Daily Allowance (RDA), Specific Dynamic Action (SDA) of foods, Balanced diet formulation. Analytical techniques used in detection of adulteration of food: Principle, procedure and detectors of chromatographic techniques (Column, paper, TLC, HPLC and GC), Spectroscopic techniques (IR, UV, MS and AAS). Food Analysis – moisture content, ash, fat, carbohydrate, crude fibre, crude protein, sodium, potassium, calcium, and phosphates. Food adulteration: common adulteration, contamination and pesticide analysis. Oils and Fats - Iodine value and saponification value.
VI  Microbiological, Biotechnological and Medical aspects


VII  Agricultural Sciences


IX       Mental Ability and Test of Reasoning

Calculation & Logic – Coding & Decoding- Classification- Synonym- Antonym- Letter & Number Series- Odd Man Out- Analogy- Common Sense Test- Alphabetical Arrangement of Words- Date and Calendar- Sense of Direction- Etc.

X       General English

Grammar – Agreement of Subject and Verb – Confusing Adjectives and Adverbs – Comparison of Adjectives – Correct usage of Articles – Prepositions – Direct and Indirect Speech – Active and Passive Voice – Correction in Sentences – etc.

Vocabulary – Gender – Singular and Plural – Synonyms – Antonyms – One word Substitutes – Problem concerning words – Idioms and their meanings – etc.

NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper