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|  | <p>(c) 1616 – 1749 A.D. (including representative writings of Moliere, Racine, Swift, Voltaire and Defoe).</p> <p>(d) 1749 – 1832 A.D. (including representative writings of Goethe, Schiller, Heine, Wordsworth, Coleridge, Shelley, Keats, Scott, Rene, Lamartine, Vigny, Hugo and Musset).</p> <p>(e) 1832 – 1910 A.D. (including representative writings of Whitman, Baudelaire, Verlaine, Laforgue, Ibsen, Balzac, Tolstoy, Maupassant and Chekhov).</p> <p>(f) 1910 to the Present times (including representative writings of Yeats, Eliot, Frost, Rilke, Mayakovsky, Eluard, Neruda, Hervert, Kafka, Marquez and Ionesco).</p> |
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## **AGRICULTURE :**

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| Paper – I :  | <p>Agro-ecological factors- plant growth and distribution. Distribution of crops according to region. Role of climate and weather of crop production, weather forecasting including modern methods. Greenhouse effect and global warming. Precision farming- Remote Sensing (RS) and Geographic Information system (GIS).</p> <p>Cropping pattern and cropping system-distribution, objectives, types and impact on high yielding varieties, scope and limitations.</p> <p>Package and practices of cereals (rice, wheat, maize), pulses (green gram, black gram, red gram, lentil and peas), oil seeds (mustard, sesamum, ground nut, linseed, sunflower); fibre crops (Jute, sunhemp, mesta); sugarcane and forage crops (Sorghum, napier, para, berseem, Lucerne, ricebean, cowpea, oat, dinanath grass).</p> <p>Weeds- definition, characteristics, dessimination and control.</p> <p>Agroforestry-Definition of forest, scope of various types of forest - social forest, rural forest, urban forest, farm forestry; forest products. Aforestation. Conservation.</p> <p>Soil- definition, process and factors of soil formation, soil properties and soil conservation. Soilfertility - problems of soil and their reclamation.</p> <p>Nutrition- essential elements, role of nutrients on plants, integrated nutrient management and biofertilizers.</p> <p>Water use efficiency and dryland farming- water use efficiency in relation to crops production. Criteria for scheduling irrigation. Methods and systems of irrigation. Rainwater harvesting.</p> <p>Dryland farming - definition, prospects and problems. Techniques for establishment and management.</p> <p>Farm management - scope, importance and characteristics, farm planning, farm budgeting and farm operations.</p> <p>Agro-economics - function and crop insurance.</p> <p>AgriI-extension - importance and role, methods of evaluation of extension programme. Role of KVK in technology transfer. Role and scope of Information Technology in Indian Agriculture. Livelihood management through agriculture (Self Help Group in agriculture).</p> <p>Marketing - its channels, pricing, marketing intelligence, storage with special references to cold storage and wirehouse. Distribution- public distribution system.</p> |
| Paper – II : | <p>Crop improvement- Cell structure and functions, law of heredity, chromosome structure and aberrations, polyploidy. Mutation breeding.</p> <p>History of plant breeding. Mode of reproduction, selfing and crossing techniques. Crop genetic resources - conservation and utilization. Application of principles of plant breeding. Breeding methods.</p> <p>Heterosis,somatic hybridization. Molecular markers, DNA finger printing and genetically modified crops.</p> <p>Principles of plant physiology; absorption, translocation, photosynthesis and respiration (definition, process, factors affecting and significance). Growth and development, photoperiodism, plant growth substances (definition, classification and role).Stress-physiology.</p> <p>Seed production, testing, certification and storage.</p> <p>Cultivation practices of major commercial fruits, vegetables, flowers, plantation and spices, medicinal and aromatic crops. Landscaping- principles, features and designs. Postharvest technology. Protected cultivation of horticultural crops.</p> <p>Pests and diseases of commercially important fruit, vegetables, flowers, plantation &amp; spices, medicinal and aromatic crops. IPM.</p> <p>Food and nutrient security. Scope for export of agricultural products.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## **ANIMAL HUSBANDRY AND VETERINARY SCIENCE :**

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| Paper – I : | <p><b>1. ANIMAL NUTRITION</b></p> <p>1.1 Livestock Feeds : Common feeds and fodder and their classification. Proximate analysis of feed stuff.</p> <p>1.2 Energy Nutrition : Energy sources, Measures of food energy and their application such as Gross Energy, Digestible Energy, Metabolisable Energy, Net Energy, Total Digestible Nutrients. Energy requirement for maintenance, growth, pregnancy and lactation in milk producing livestock.</p> <p>1.3 Protein Nutrition: Biological value of protein, Protein efficiency ratio, digestible crude protein. Use of NPN in ruminants, bypass protein. Protein requirements for maintenance, growth, pregnancy and lactation in milk producing livestock. Improvement of poor quality roughages.</p> |
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