

SAM GLOBAL UNIVERSITY

Established under Govt. of M.P. & Recognized by UGC Address: Gram- Agariya Chopda, Dist. Raisen (M.P.) Website: <u>www.samglobaluniversity.ac.in</u> E-Mail:kundandr@gmail.com

Syllabus for entrance examination for admission in Ph.D HORTICULTURE

I). FRUIT SCIENCE

Area and production of fruits, origin, distribution, commercial importance, export potential, species, varieties, eco-physiological requirement and cultivation practices of major fruit crops like mango, citrus, banana, grape, papaya, guava, pineapple, litchi, loquat, phalsa, jackfruit, mangosteen, sapota, cashewnut, ber, pomegranate, date palm, aonla and temperate fruits like apple, pear, peach, almond, plum, apricot and cherry.

Canopy management, weed control, modern methods of propagation including micro propagation and use of growth regulators in fruit crops, nutrient and water management, organic farming systems, use of biofertilizers, rootstocks, stock scion relationship, incompatibility, high density orchard, major pests & diseases, physiological disorders and their control measures.

Crop improvement, Biotechnological interventions, Good agricultural practices (GAP), quality improvement, maturity indices, harvesting practices, storage and ripening techniques.

II). VEGETABLE SCIENCE

Cultural and climatic requirement for cultivation of vegetables i.e. potato, tomato, chilli, brinjal, cole crops, okra, peas and beans, cucurbitaceous crops; forcing techniques of vegetable production, organic farming, post-harvest handling, physiological disorders, breeding methods of self and cross pollinated vegetable crops, micro-propagation techniques, hybrid seed production of vegetable crops, crop systems, multiple cropping, nursery raising techniques, protected cultivation, low tunnel technology, statistical tools for field experimentation, disease management in nursery and fields, determination of biochemical constituents i.e. ascorbic acid, sugars, protein, capsaicin, carotene.