**Enclosure V**

**Shree Manibhai Virani and Smt. Navalben Virani Science College, Rajkot**

 **(Autonomous)**

**Affiliated to Saurashtra University, Rajkot**

**Department of Biotechnology**

 **B. Sc. BIOTECHNOLOGY**

For Students Admitted from A.Y. 2016-2017 & Onwards

**SEC – III**

**Value Added Course**

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| **16UBTVA01** | **WEALTH FROM WASTE** | **Duration****40 hrs****(1 credit)** | **Any semester between II- V** |

**Learning Outcomes:**

1. To create sustainable orderliness, enhanced ecological balance, beauty, productivity, dignity in the society/nature
2. To explore market opportunities for the recovered and recycling materials
3. To experience developing of a business model

**Unit 1: Waste Material: Collection and Treatment (06 hrs)**

* Survey of available/generated waste
* Collection of waste materials**:** Husk leaves of corn, used ear of wheat, maize & other cereals
* Dyeing of waste material with natural colors
* Hardening of material: drying and ironing

**Unit 2: Use of treated waste material: Flower preparation (10 hrs)**

* Procedure of flower preparation
* Use of different materials
* Shapes and types of flowers

**Unit 3: Flower arrangement for different purposes (10 hrs)**

* Procedure for preparation of different flower
* Types and uses of different flower arrangements
* Small and large handy bouquet, table bouquet
* Photo frames, Flower vase, Wall Hangings
* Garlands and Ornaments

**Unit 4: Marketing (08hrs)**

* Need analysis, pricing and basic marketing strategies
* Preparation and designing of price list
* Methods of advertisement
* Exhibition cum sale
* Survey for the need of Product and its supply to the market

**Unit 5: Project: Innovative Creation through Reuse and Recycling of Waste (06hrs)**