

## **Program : Diploma in Ceramic Technology**

### **PO(Program Outcome)**

- a. The Student Of Ceramic Technology Comes Across The Detailed Study Of Various Basics Subjects In Course.
- b. It Has Broad Areas Of Application In The Field Like Construction (Sanitaryware, Bath Ware), Agriculture, Environment, Pollution Control, Waste Management, Energy Production, And Security. Most Common Applications Of Ceramic Products Are Sanitary ware, And Crockery Ware.
- c. Ceramics Have Been Used Since The Earliest Civilization. The Field Of Ceramic Materials Has Its Roots In More Traditional Aspects Of The Subject Like Clay Based Ceramics And Glasses. However, During The Past Few Decades, New Developments In The Use Of Ceramics In More Advanced Technological Applications Have Attracted Considerable Attention.
- d. The Increasing Use Of Ceramics In Advanced Technological Applications Has Resulted In A Heightened Demand For Improvements In Material Properties And Reliability.
- e. In Recent Years There Has Been A Realization That These Improvements Can Be Achieved Through Careful Attention To The Fabrication Processes Used For Different Manufacturing Requirements Of Ceramics.
- f. There Has Been A Remarkable Growth In Fundamental And Applied Research In The Field Of Ceramics To Meet The Requirements Of These Advanced Technological Applications.
- g. Diploma Ceramic Engineers Are Expected To Work Most In Ceramic Industries. They Deal With Production Of Ceramic Products. Since, They Should Be Familiar Of Different Ceramic Raw Materials Used In Variety Of Products Such As Tableware Or Crockery Decorative Ware, Sanitary And Industrial Ware. This Course Gives Brief Knowledge Of Different Ceramic Materials Used For Various Purposes.
- h. The Course Content Should Be Taught And Implemented With The Aim To Develop Different Sills So That Student Is Able To Acquire Following Competency:
- i. Although The Concept Of Ceramic Technology Is Not New To The World But The Areas Of Specializations Are Coming With Modern Terminology.
  - I. Basic Knowledge Of Sanitaryware, Tiles Ware, Refractory, And Glass Which Will Help In Research And Also In Industries
  - II. Basics Of Knowledge Of Raw Material Will Help In Industries.

- III. Basics And Advance Knowledge Of Sanitaryware Making Process Will Help In Industry.
- IV. Students Are Aware By Practical Related To Subject So It Will Easy To Understand Theory And Application Of Practical.
- V. Subject Of Chemistry Will Give Knowledge About Chemical Used In Industry.
- VI. Environmental Health And Safety Guideline Give Insight Knowledge Of Pollution And Its Solution.

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#### **PSO(Program Specific Outcome)**

1. Ceramic sector is A Continuously Developing Sector. Advancements Are Being Made At Good Pace In This Sector. Big Firms Are Pouring In Big Money Into It And New Business Opportunities Are Developing In This Sector. These Things Have Led To Huge Increase In Job Openings In This Sector. In Short, Ceramic Diploma Students Are In Huge Demand These Days.
2. After Diploma In Ceramic, One May Go For Advanced Diploma. After Completion Advanced Diploma Students Of Will Appeared For Graduation. After Completing B.Voc Degrees, One May Venture Into M.Voc And Phd Also.
3. This Is A Rapidly Developing Field. Many Private Businesses Are Exploring In This Field and Heavily Investing In It So New Startups Will Be Open And Emerging Entrepreneur Will Come.
4. Various Prominent Industries Where Ceramic Technology Professionals May Find Jobs in Ceramic Sector.
5. Research Sector In Particular Is Quite Lucrative. One May Build A Rewarding Career In This Field.
6. Along With An Educational Degree, The Student Can Also Appear For Govt As Well As Private Sector Examination.
7. Apart From These National Level Exams, The Student Can Also Appear For Other State Level Competitive Examinations As Well E.G. GPSC And UPSC.

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### **CO(Course Outcome)**

#### **1. CT -101: Basics Of Ceramic Materials And Process-I**

- a. Aims: The Student Gets Information About The Basic Of Ceramic Technology.
- b. The Student Gets Acquainted With The Application Of Ceramic.
- c. The Student Learns About The Raw Material And Raw Material Testing Which Are Used In Ceramic Industry.

#### **2. CT-102: Basics Of Ceramic Materials And Process-II**

- a. The Student Gets Knowledge About Machineries Used For Mining
- b. The Student Learns About The Various Sleep Making Process
- c. The Student Gets Information About Plaster Of Paris And Manufacture Of Models And Moulds

#### **3. CT-103: Fundamentals Of Chemistry-I**

- a. The Student Studies Here About Basic Concept Of Chemistry
- b. The Student Studies Here About Structure Of Atoms And Chemical Bonding.
- c. The Student Studies Here About Fundamental Phenomenon Of Solution.

#### **4. CT-104 Ceramic Practical-I**

- a. The Student Studies The Primary Observation Of Raw Material.
- b. The Student Studies The Various Processes For Raw Material Testing.
- c. The Student Studies The Basics Physical Property Testing Of Raw Material

#### **5. CT-105 Chemistry Practical-I**

- a. The Student Studies The Handling Of Glassware And Chemicals.
- b. The Student Studies The Preparation Of Standard Solution ( Standardization)
- c. The Student Studies Volumetric Exercise.

#### **6. CT-201 Basics Of Ceramic Materials And Process-III**

- a. The Students Will Learn The Process Of Casting Of Ceramic Ware
- b. The Students Will Learn The Various Pathway Of Draying And Finishing In Ceramic Ware
- c. The Students Will Learn The Glazing In Ceramic Ware.

#### **7. CT-202 Basics Of Ceramic Materials And Process-IV**

- a. The Students Will Study Kilns And Firing Process.
- b. The Students Will Learn About Environmental Health And Safety Practices For Ceramic Industry.
- c. The Students Will Learn The Basic Knowledge Of Refractory.

**8. CT-203      Fundamentals Of Chemistry-II**

- a. The Students Will Learn The Solid State.
- b. The Students Will Learn The General Principles And Process Of Isolation Of Metal
- c. The Students Will Learn The Surface Chemistry.

**9. CT-204 Ceramic Practical-II**

- a. The Students Work upon Industrial Process And Its Concept For Production Of Various Sanitaryware And Its Use.
- b. The Students Learn The All Chemical Testing Done In Ceramic Industry
- c. The Students Learn The Instrumental Knowledge Used In Ceramic Industry.

**10.      CT-205 Chemistry Practical-II**

- a. The Students Understand and Gate Knowledge About Safety Criteria In Chemical Laboratory.
- b. The Students Learn The Qualitative Analysis Of In Organic Salts.
- c. The Students Learn Volumetric Exercise.
- d. The Student Studies Here Waste Water Treatment And Solid Waste Treatment.