**Approved Content Weightages for Fatima Fert.**

**Apprenticeship**

|  |  |  |
| --- | --- | --- |
| **Sr. No** | **Core Areas Division** | **% Weight** |
| 1- | General Knowledge | 20% |
| 2- | Quantitative | 20% |
| 3- | General Science | 20% |
| 3- | Subject Trade Specific | 40% |
|  |  **Total** | **100%** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No** | **Designation of the Post** | **Criteria and Subject Division** | **Subject****% Weight** |

|  |  |  |  |
| --- | --- | --- | --- |
| **01** | **Apprenticeship****(Maintenance Technician)** | **Overall Percentage**  | **40%** |
| Power Plants & Thermodynamics | 08% |
| Engineering drawing and graphics | 08% |
| Materials & Manufacturing Processes | 08% |
| Machine design | 4% |
| Mechanics of Material | 4% |
| Mechanical Vibrations | 4% |
| Basic Electrical and Electronics | 4% |
| **02** | **Apprenticeship****(Chemical Plant Operator)** | **Overall Percentage**  | **40%** |
| Chemical Process Principles | 08% |
| Chemical Engineering Thermodynamics | 08% |
| Chemical Reaction Engineering | 08% |
| Heat & Mass Transfer  | 08% |
| Fluid Mechanics | 04% |
| Instrument and Process Control | 04% |
| **03** | **Apprenticeship****(Electrical Technician)** | **Overall Percentage**  | **40%** |
| Power Generation and Transmission | 08% |
| Power Distribution | 08% |
| Power System Protection | 08% |
| Power Electronics | 08% |
| High Voltage Engineering | 04% |
| Power System Analysis | 04% |
| **04** | **Apprenticeship****(Instrument Technician)** | **Overall Percentage**  | **40%** |
| Analogue Electronics | 08% |
| Digital Logic Design | 08% |
| Power/Industrial Electronics | 08% |
| Control Systems | 08% |
| AC and DC Machines | 04% |
| Telecommunication | 04% |
| **05** | **Apprenticeship****(LaboratoryAnalyst)** | **Overall Percentages** | **40%** |
| Basics of Analytical Chemistry | 08% |
| Spectrometry and Spectrophotometry | 08% |
| Derivative Spectroscopy | 08% |
| Atomic Spectroscopy | 4% |
| Thermal Methods of Analyses | 4% |
| Inorganic Chemistry | 4% |
| Chemistry of Non-aqueous Solvents | 4% |
| **06** | **Apprenticeship****(Mechanical Draftsman)** | **Overall Percentages** | **40%** |
| Applied Physics  | 08% |
| Applied Mathematics  | 08% |
| Engineering Drawing  | 08% |
| Machine Design  | 04% |
| Workshop Practices  | 04% |
| Metrology,Metallurgy,Materials testing & Heat treatment. | 08% |
| **07** | **Apprenticeship****(Auto Technician)** | **Overall Percentages** | **40%** |
| Applied thermodynamics    | 08% |
| Applied Mathematics  | 04% |
| Computer applications in CAD & Automation | 04% |
| Workshop Practice  | 08% |
| Automotive transmission, Fuel Injection, Suspension steering & Brake | 08% |
| Applied Chemistry Applied Physics      Engineering drawing MT | 08% |