

| Institute of Fuel Research & Development (IFRD) |                            |                               |   |       |          |
|---|----------------------------|-------------------------------|---|-------|----------|
| SL No   | Sample Type Name of Sample | Test Parameter                | Methodology                               | Fees  | Duration |
| 1   | Battery                    | Capacity Test                 | Digital Battery Analyzer                  | 10000 | 10       |
| 2   | Liquid Fuel                | Aniline Point                 | ASTM D-611-64                             | 3000  | 7        |
| 3   | Liquid Fuel                | API Gravity                   | ASTM D-287-64                             | 2000  | 7        |
| 4   | Liquid Fuel                | Ash Content                   | ASTM/IP4/58                               | 2000  | 7        |
| 5   | Liquid Fuel                | Benzene                       | Gasoline Sensor Portable Process Analyzer | 6000  | 7        |
| 6   | Battery                    | Cycle Life                    | Digital Battery Analyzer                  | 50000 | 30       |
| 7   | Battery                    | Initial Current (Max)         | Digital Battery Analyzer                  | 5000  | 7        |
| 8   | Battery                    | Load Test                     | Digital Battery Analyzer                  | 5000  | 7        |
| 9   | Battery                    | OHM Test/ Internal Resistance | Digital Battery Analyzer                  | 5000  | 7        |
| 10  | Liquid Fuel                | Cloud Point                   | IP 15/55                                  | 2000  | 7        |
| 11  | Liquid Fuel                | Color                         | Colour                                    | 2000  | 7        |
| 12  | Liquid Fuel                | Corrosion                     | IP 154/59                                 | 3000  | 7        |
| 13  | Liquid Fuel                | DIPE                          | Gasoline Sensor Portable Process Analyzer | 4000  | 7        |
| 14  | Liquid Fuel                | Distillation Range            | ASTM D 1160                               | 3000  | 7        |
| 15  | Liquid Fuel                | Ethanol                       | Gasoline Sensor Portable Process Analyzer | 6000  | 7        |
| 16  | Liquid Fuel                | Fire Point                    | IP 35/42                                  | 2500  | 7        |
| 17  | Liquid Fuel                | Flash Point                   | IP 35/42                                  | 2500  | 7        |
| 18  | Liquid Fuel                | Gross Calorific Value         | Bomb Calorimeter                          | 4000  | 7        |
| 19  | Liquid Fuel                | MTBE                          | Gasoline Sensor Portable Process Analyzer | 6000  | 7        |
| 20  | Liquid Fuel                | Net Calorific Value           | Bomb Calorimeter 12/58                    | 4000  | 7        |
| 21  | Liquid Fuel                | Net Calorific Value           | IP 12/58                                  | 4000  | 7        |
| 22  | Liquid Fuel                | Pour Point                    | ASTM D 97-57                              | 2000  | 7        |
| 23  | Liquid Fuel                | Pour Point                    | IP 15/55                                  | 2000  | 7        |
| 24  | Liquid Fuel                | Sediment                      | ASTM D 4007                               | 2000  | 7        |
| 25  | Bio-Diesel (4)             | Aniline Point                 | ASTM D 11-64                              | 3000  | 7        |
| 26  | Liquid Fuel                | Specific Gravity              | IP 160/57                                 | 2000  | 7        |
| 27  | Liquid Fuel                | Sulphur Content               | IP 61/59                                  | 4000  | 7        |
| 28  | Bio-Diesel (4)             | API Gravity                   | IP 131/57                                 | 2000  | 7        |
| 29  | Liquid Fuel                | T-butanol                     | Gasoline Sensor Portable Process Analyzer | 4000  | 7        |
| 30  | Bio-Diesel (4)             | Ash Content                   | IP 4/58                                   | 2000  | 7        |
| 31  | Liquid Fuel                | Toluene                       | Gasoline Sensor Portable Process Analyzer | 6000  | 7        |
| 32  | Liquid Fuel                | Total Xylenes                 | Gasoline Sensor Portable Process Analyzer | 6000  | 7        |
| 33  | Liquid Fuel                | Viscosity                     | Viscometer                                | 3000  | 7        |

|    |                |                           |                            |       |   |
|----|----------------|---------------------------|----------------------------|-------|---|
| 34 | Liquid Fuel    | Viscosity                 | IP 73/53                   | 3000  | 7 |
| 35 | Liquid Fuel    | Viscosity Index           | ASTM D 4007                | 3000  | 7 |
| 36 | Bio-Diesel (4) | Bioling Range             | ASTM D 11-60               | 3000  | 7 |
| 37 | Liquid Fuel    | Water Content             | IP 2016-65                 | 2500  | 7 |
| 38 | Bio-Diesel (4) | Carbon Residue            | IP 13/58                   | 2500  | 7 |
| 39 | Bio-Diesel (4) | Cetane Number             | ASTM D 613-86              | 4000  | 7 |
| 40 | Bio-Diesel (4) | Cloud Point               | IP 15/55                   | 2000  | 7 |
| 41 | Bio-Diesel (4) | Color                     | Colorimeter ASTM D 1500-64 | 2000  | 7 |
| 42 | Bio-Diesel (4) | Corrosion                 | IP 154/59                  | 3000  | 7 |
| 43 | Bio-Diesel (4) | Density                   | IP 131/57                  | 2000  | 7 |
| 44 | Bio-Diesel (4) | Fire Point                | IP 35/42                   | 2500  | 7 |
| 45 | Bio-Diesel (4) | Flash Point               | ASTM D 93-62               | 2500  | 7 |
| 46 | Bio-Diesel (4) | Higer Calorific Value     | BOMB Calorimeter 12/58     | 4000  | 7 |
| 47 | Bio-Diesel (4) | Lower Calorific Value     | BOMB Calorimeter 12/58     | 4000  | 7 |
| 48 | Bio-Diesel (4) | Pour Point                | ASTM D 97-57               | 2000  | 7 |
| 49 | Bio-Diesel (4) | Sediment                  | ASTM D 4007                | 2000  | 7 |
| 50 | Bio-Diesel (4) | Smoke Point               | ASTM D 1322-64             | 4000  | 7 |
| 51 | Bio-Diesel (4) | Specific Gravity          | IP 131/57                  | 2000  | 7 |
| 52 | Bio-Diesel (4) | Sulphur Content           | IP 61/59                   | 4000  | 7 |
| 53 | Bio-Diesel (4) | TAN/TBN                   | IP 1/58                    | 2000  | 7 |
| 54 | Bio-Diesel (4) | Viscosity                 | Viscometer                 | 3000  | 7 |
| 55 | Bio-Diesel (4) | Viscosity                 | IP 73/53                   | 3000  | 7 |
| 56 | Bio-Diesel (4) | Viscosity Index           | ASTM D 2270                | 3000  | 7 |
| 57 | Bio-Diesel (4) | Water Content             | ASTM 74/57                 | 2500  | 7 |
| 58 | Biogas         | Biogas (CH4, H2S, CO2, O2 | GC                         | 10000 | 7 |
| 59 | Biogas         | Biogas (CH4, H2S, CO2, O2 | Orsat                      | 10000 | 7 |
| 60 | Biogas         | Biogas (CH4, H2S, CO2, O2 | Biogas Analyzer            | 10000 | 7 |
| 61 | Charcoal       | Ash Content               | IP 4/58                    | 2000  | 7 |
| 62 | Charcoal       | C-H-N-S                   | EleMental Analyzer         | 6500  | 7 |
| 63 | Charcoal       | C-H-N-S-O                 | EleMental Analyzer         | 10000 | 7 |
| 64 | Charcoal       | Fixed Carbon              | Physical                   | 4000  | 7 |
| 65 | Charcoal       | Higer Calorific Value     | BOMB Calorimeter           | 4000  | 7 |
| 66 | Charcoal       | Higher Calorific Value    | IP 12/58                   | 4000  | 7 |
| 67 | Charcoal       | Inherent Moisture         | IP 2016-65                 | 2000  | 7 |
| 68 | Charcoal       | Mesh Size                 | Sieve Analysis             | 3000  | 7 |
| 69 | Charcoal       | Net Calorific Value       | BOMB Calorimeter           | 4000  | 7 |
| 70 | Charcoal       | Total Moisture            | IP 2016-65                 | 2000  | 7 |

|     |           |                                       |   |       |   |
|-----|-----------|---------------------------------------|---|-------|---|
| 71  | Charcoal  | Volatile Matter                       | Mupple Furnace                            | 3000  | 7 |
| 72  | Briquette | Ash Content                           | IP 4/58                                   | 2000  | 7 |
| 73  | Briquette | C-H-N-S                               | EleMental Analyzer                        | 6500  | 7 |
| 74  | Briquette | C-H-N-S-O                             | Elemental Analyzer                        | 10000 | 7 |
| 75  | Briquette | Density                               | IP 160/57                                 | 2000  | 7 |
| 76  | Briquette | Fixed Carbon                          | Physical                                  | 4000  | 7 |
| 77  | Briquette | Higer Calorific Value                 | BOMB Calorimeter                          | 4000  | 7 |
| 78  | Briquette | Higer Calorific Value                 | IP 12/58                                  | 4000  | 7 |
| 79  | Briquette | Inherent Moisture                     | ASTM D 1860-63                            | 2000  | 7 |
| 80  | Briquette | Lower Calorific Value                 | IP 12/58                                  | 4000  | 7 |
| 81  | Briquette | Mesh Size                             | Sieve Analysis                            | 3000  | 7 |
| 82  | Briquette | Sulphur Content                       | IP 61/59                                  | 4000  | 7 |
| 83  | Briquette | Total Moisture                        | IP 2016-65                                | 2000  | 7 |
| 84  | Briquette | Volatile Matter                       | Mupple Furnace                            | 3000  | 7 |
| 85  | Coal-4    | Ash Content                           | IP 4/58                                   | 2000  | 7 |
| 86  | Coal-4    | C-H-N-S                               | Elemental Analyzer                        | 6500  | 7 |
| 87  | Coal-4    | C-H-N-S-O                             | Elemental Analyzer                        | 10000 | 7 |
| 88  | Coal-4    | Calorific Value/Gross Calorific Value | BOMB Calorimeter                          | 4000  | 7 |
| 89  | Coal-4    | Density                               | IP 160/57                                 | 2000  | 7 |
| 90  | Coal-4    | Fixed Carbon                          | Physical                                  | 4000  | 7 |
| 91  | Coal-4    | Gross Calorific Value                 | BOMB Calorimeter                          | 4000  | 7 |
| 92  | Coal-4    | Higher Calorific Value                | BOMB Calorimeter                          | 4000  | 7 |
| 93  | Coal-4    | Higher Calorific Value                | IP 12/58                                  | 4000  | 7 |
| 94  | Coal-4    | Inherent Moisture                     | ASTM D 1860-63                            | 2000  | 7 |
| 95  | Coal-4    | Mesh Size                             | Sieve Analysis                            | 3000  | 7 |
| 96  | Coal-4    | Net Calorific Value                   | BOMB Calorimeter                          | 4000  | 7 |
| 97  | Coal-4    | Net Calorific Value                   | IP 12/58                                  | 4000  | 7 |
| 98  | Coal-4    | Sulphur Content                       | IP 61/59                                  | 4000  | 7 |
| 99  | Coal-4    | Surface Moisture                      | IP  | 2000  | 7 |
| 100 | Coal-4    | Total Moisture                        | IP 2016-65                                | 2000  | 7 |
| 101 | Coal-4    | Volatile Matter                       | Mupple Furnace                            | 3000  | 7 |
| 102 | Diesel-4  | Acid value                            | IP 1/58                                   | 2000  | 7 |
| 103 | Diesel-4  | Aniline Point                         | ASTM D 611-64                             | 3000  | 7 |
| 104 | Diesel-4  | API Gravity                           | ASTM D 287-64                             | 2000  | 7 |
| 105 | Diesel-4  | Aromatics                             | Gasoline Sensor Portable Process Analyzer | 4000  | 7 |
| 106 | Diesel-4  | Ash Content                           | IP 4/58                                   | 2000  | 7 |

|     |             |                        |                                  |      |   |
|-----|-------------|------------------------|----------------------------------|------|---|
| 107 | Diesel-4    | Boiling Range          | ASTM D 1160                      | 3000 | 7 |
| 108 | Diesel-4    | Carbon Residue         | IP 13/58                         | 2500 | 7 |
| 109 | Diesel-4    | Cetane Index           | ASTM D 613-86                    | 4000 | 7 |
| 110 | Diesel-4    | Cetane Index           | Diesel Portable Process Analyzer | 6000 | 7 |
| 111 | Diesel-4    | Cetane Number          | Diesel Portable Process Analyzer | 6000 | 7 |
| 112 | Diesel-4    | Cetane Number          | ASTM D 613-86                    | 4000 | 7 |
| 113 | Diesel-4    | Cloud Point            | IP 15/55                         | 2000 | 7 |
| 114 | Diesel-4    | Color                  | Colorimeter ASTM D 1500-64       | 2000 | 7 |
| 115 | Diesel-4    | Corrosion              | IP 154/59                        | 3000 | 7 |
| 116 | Diesel-4    | Density                | IP 160/57                        | 2000 | 7 |
| 117 | Diesel-4    | Fire Point             | ASTM D 93-62                     | 2500 | 7 |
| 118 | Diesel-4    | Flash Point            | IP 35/42                         | 2500 | 7 |
| 119 | Diesel-4    | Flash Point            | ASTM D 93-62                     | 2500 | 7 |
| 120 | Diesel-4    | Higer Calorific Value  | BOMB Calorimeter                 | 4000 | 7 |
| 121 | Diesel-4    | Higher Calorific Value | IP 12/58                         | 4000 | 7 |
| 122 | Diesel-4    | Insoluble Matters      | ASTM D 4007                      | 2000 | 7 |
| 123 | Diesel-4    | Lower Calorific Value  | IP 12/58                         | 4000 | 7 |
| 124 | Diesel-4    | Lower Calorific Value  | BOMB Calorimeter                 | 4000 | 7 |
| 125 | Diesel-4    | Moisture/Water         | IP 2016-65                       | 2500 | 7 |
| 126 | Diesel-4    | Pour Point             | IP 15/55                         | 2000 | 7 |
| 127 | Diesel-4    | Sediment               | ASTM D 4007                      | 2000 | 7 |
| 128 | Diesel-4    | Smoke Point            | ASTM D 1322-64                   | 4000 | 7 |
| 129 | Diesel-4    | Specific Gravity       | IP 160/57                        | 2000 | 7 |
| 130 | Diesel-4    | Sulphur Content        | IP 61/59                         | 4000 | 7 |
| 131 | Diesel-4    | TAN/TBN                | IP 1/58                          | 2000 | 7 |
| 132 | Diesel-4    | Viscosity              | Viscometer                       | 3000 | 7 |
| 133 | Diesel-4    | Viscosity              | IP 73/53                         | 3000 | 7 |
| 134 | Diesel-4    | Viscosity Index        | ASTM D 2270                      | 3000 | 7 |
| 135 | Furnace Oil | Acid value             | IP 1/58                          | 2000 | 7 |
| 136 | Furnace Oil | Aniline Point          | ASTM D 611-64                    | 3000 | 7 |
| 137 | Furnace Oil | API Gravity            | ASTM D 287-64                    | 2000 | 7 |
| 138 | Furnace Oil | Ash Content            | ASTM/IP4/58                      | 2000 | 7 |
| 139 | Furnace Oil | Carbon Residue         | IP 13/58                         | 2500 | 7 |
| 140 | Furnace Oil | Corrosion              | IP 154/59                        | 3000 | 7 |
| 141 | Furnace Oil | Density                | IP 160/57                        | 2000 | 7 |
| 142 | Furnace Oil | Distillation Range     | ASTM D 1160                      | 3000 | 7 |

|     |                    |   |   |       |   |
|-----|--------------------|---|---|-------|---|
| 143 | Furnace Oil        | Fire Point  | IP 35/42                                    | 2500  | 7 |
| 144 | Furnace Oil        | FLASH POINT   | IP 35/42                                    | 2500  | 7 |
| 145 | Furnace Oil        | Higher Calorific Value  | BOMB Calorimeter                            | 4000  | 7 |
| 146 | Furnace Oil        | Lower Calorific Value   | IP 12/58                                    | 4000  | 7 |
| 147 | Furnace Oil        | Pour Point  | ASTM D 97-57                                | 2000  | 7 |
| 148 | Furnace Oil        | Pour Point  | IP 15/55                                    | 2000  | 7 |
| 149 | Furnace Oil        | Sediment  | ASTM D 2270                                 | 2000  | 7 |
| 150 | Furnace Oil        | Specific Gravity  | IP 131/57                                   | 2000  | 7 |
| 151 | Furnace Oil        | Sulphur Content   | IP 61/59                                    | 4000  | 7 |
| 152 | Furnace Oil        | Viscosity   | Viscometer                                  | 3000  | 7 |
| 153 | Furnace Oil        | Viscosity Index   | ASTM D 2270                                 | 3000  | 7 |
| 154 | Furnace Oil        | Water Content   | IP 2016-65                                  | 2500  | 7 |
| 155 | Lubricating Oil-4  | Acid Value  | IP 1/58                                     | 2000  | 7 |
| 156 | Lubricating Oil-4  | Acid Value/TAN  | IP 1/58                                     | 2000  | 7 |
| 157 | Lubricating Oil-4  | Aniline Point   | ASTM D-611-64                               | 3000  | 7 |
| 158 | Lubricating Oil-4  | API Gravity   | ASTM D-287-64                               | 2000  | 7 |
| 159 | Lubricating Oil-4  | Ash Content   | ASTM/IP4/58                                 | 2000  | 7 |
| 160 | Lubricating Oil-4  | Boiling Range   | ASTM D 1160                                 | 3000  | 7 |
| 161 | Lubricating Oil-4  | Carbon Residue  | IP 13/58                                    | 2500  | 7 |
| 162 | Grease             | Corrosion   | IP 154/59                                   | 3000  | 7 |
| 163 | Grease             | Dropping Point  | IP 131/57                                   | 3000  | 7 |
| 164 | Lubricating Oil-4  | Cloud Point   | IP 15/55                                    | 2000  | 7 |
| 165 | Grease             | Miosture  | IP 2016-65                                  | 2500  | 7 |
| 166 | Lubricating Oil-4  | Color   | ASTM D 1500-64                              | 2000  | 7 |
| 167 | Grease             | Miosture  | ASTM D 1860-63                              | 2500  | 7 |
| 168 | Lubricating Oil-4  | Corrosion   | IP 154/59                                   | 3000  | 7 |
| 169 | Grease             | Penetration Tst   | IP 50/57                                    | 3000  | 7 |
| 170 | Lubricating Oil-4  | Corrosion   | IP 154/59/ASTM D 130-65                     | 3000  | 7 |
| 171 | Improved Cookstove | Efficiency  | WBT   | 12000 | 7 |
| 172 | Improved Cookstove | Performance   | WBT   | 15000 | 7 |
| 173 | Lubricating Oil-4  | Carbon Residue  | IP 13/58/ASTM D 189-65                      | 2500  | 7 |
| 174 | Lubricating Oil-4  | Density   | IP 160/57                                   | 2000  | 7 |
| 175 | Lubricating Oil-4  | Density   | IP 131/57                                   | 2000  | 7 |
| 176 | IPS/UPS            | Backup Time, Charge Time, MX Output Power, Output Voltage, Output Frequency, PF | Digital Power Analyzer, Digital Oscilloscop | 10000 | 7 |
| 177 | Lubricating Oil-4  | Fire Point  | IP 35/42                                    | 2500  | 7 |
| 178 | Lubricating Oil-4  | Flash Point   | IP 35/42                                    | 2500  | 7 |

|     |                                      |   |  |       |   |
|-----|--------------------------------------|---|--|-------|---|
| 179 | Lubricating Oil-4                    | Flash Point   | ASTM D93-62                                  | 2500  | 7 |
| 180 | Lubricating Oil-4                    | Moisture  | ASTM 74/57                                   | 2500  | 7 |
| 181 | LED/CFL/Tube Light/Incandescent Lamp | Brightness (I Limen/Lux), Consumed Power, PF                | Digital Light Meter                          | 5000  | 7 |
| 182 | Lubricating Oil-4                    | Moisture/Water Content                                      | ASTM D 1860-63                               | 2500  | 7 |
| 183 | Lubricating Oil-4                    | pH  | pH Meter                                     | 2000  | 7 |
| 184 | Liquid Fuel                          | Acid value  | IP 1/58                                      | 2000  | 7 |
| 185 | Lubricating Oil-4                    | Pour Point  | ASTM D 97-57                                 | 2000  | 7 |
| 186 | Lubricating Oil-4                    | Pour Point  | IP 15/55                                     | 2000  | 7 |
| 187 | Lubricating Oil-4                    | Sediment  | ASTM D 4007                                  | 2000  | 7 |
| 188 | Lubricating Oil-4                    | Specific Gravity  | IP 131/57                                    | 2000  | 7 |
| 189 | Lubricating Oil-4                    | Sulphur Content   | IP 61/59                                     | 4000  | 7 |
| 190 | Lubricating Oil-4                    | Sulphur Content   | IP 61/53                                     | 4000  | 7 |
| 191 | Lubricating Oil-4                    | Viscosity   | Viscometer                                   | 3000  | 7 |
| 192 | Lubricating Oil-4                    | Viscosity   | IP 73/53                                     | 3000  | 7 |
| 193 | Lubricating Oil-4                    | Viscosity   | IP 74/57                                     | 3000  | 7 |
| 194 | Lubricating Oil-4                    | Viscosity Index   | ASTM D 2270                                  | 3000  | 7 |
| 195 | Lubricating Oil-4                    | Pour Point  | ASTM D 97-57                                 | 2000  | 7 |
| 196 | Lubricating Oil-4                    | Ash Content   | IP 41/58                                     | 2000  | 7 |
| 197 | Electronic Ballast                   | Input Voltage Range, THD, Input Power, Output Frequency, PF | Digital Power Analyzer, Digital Oscilloscope | 5000  | 7 |
| 198 | Natural Gas                          | Carbondioxide   | GC   | 12000 | 7 |
| 199 | Natural Gas                          | Methane   | GC   | 12000 | 7 |
| 200 | Octane                               | Acid Value  | IP 1/58                                      | 2000  | 7 |
| 201 | Octane                               | Aniline Point   | ASTM D-611-64                                | 3000  | 7 |
| 202 | Octane                               | API Gravity   | ASTM D287-64                                 | 2000  | 7 |
| 203 | Octane                               | Aromatics   | Gasoline Sensor Portable Process Analyzer    | 4000  | 7 |
| 204 | Octane                               | Ash Content   | IP 4/58                                      | 2000  | 7 |
| 205 | Octane                               | Carbon Residue  | IP 13/58                                     | 2500  | 7 |
| 206 | Octane                               | Carbon Residue  | ASTM D 189-65                                | 2500  | 7 |
| 207 | Octane                               | Cloud Point   | IP 15/55                                     | 2000  | 7 |
| 208 | Octane                               | Corrosion   | IP 154/59                                    | 3000  | 7 |
| 209 | Octane                               | Density   | IP 160/57                                    | 2000  | 7 |
| 210 | Octane                               | Distillation Point  | Gasoline Sensor Portable Process Analyzer    | 4000  | 7 |
| 211 | Octane                               | Fire Point  | IP 35/42                                     | 2500  | 7 |
| 212 | Octane                               | Flash Point   | IP 35/42                                     | 2500  | 7 |
| 213 | Octane                               | Higher Calorific Value                                      | Bomb Calorimeter                             | 4000  | 7 |

|     |               |                        |   |      |   |
|-----|---------------|------------------------|---|------|---|
| 214 | Octane        | Higher Calorific Value | IP 12/58                                  | 4000 | 7 |
| 215 | Octane        | Lower Calorific Value  | Bomb Calorimeter                          | 4000 | 7 |
| 216 | Octane        | Lower Calorific Value  | IP 12/58                                  | 4000 | 7 |
| 217 | Octane        | Moisture               | IP 2016-65                                | 2500 | 7 |
| 218 | Octane        | MON/RON                | Gasoline Sensor Portable Process Analyzer | 8000 | 7 |
| 219 | Octane        | MON+RON/2              | Gasoline Sensor Portable Process Analyzer | 8000 | 7 |
| 220 | Octane        | Neutralization Point   | IP 1/58                                   | 2000 | 7 |
| 221 | Octane        | Octane Number          | Gasoline Sensor Portable Process Analyzer | 8000 | 7 |
| 222 | Octane        | Specific Gravity       | IP 160/57                                 | 2000 | 7 |
| 223 | Octane        | Sulphur Content        | IP 61/59                                  | 4000 | 7 |
| 224 | Octane        | Viscosity              | Viscometer                                | 3000 | 7 |
| 225 | Octane        | Viscosity              | IP 73/53                                  | 3000 | 7 |
| 226 | Octane        | Viscosity Index        | ASTM D 2270                               | 3000 | 7 |
| 227 | Petrol        | Acid Value             | IP 1/58                                   | 2000 | 7 |
| 228 | Petrol        | Aniline Point          | ASTM D-611-64                             | 3000 | 7 |
| 229 | Petrol        | API Gravity            | ASTM D287-64                              | 2000 | 7 |
| 230 | Petrol        | Ash Content            | IP 4/58                                   | 2000 | 7 |
| 231 | Petrol        | Boiling Range          | ASTM D 1160                               | 3000 | 7 |
| 232 | Petrol        | Carbon Residue         | IP 13/58 ASTM D 189-65                    | 2500 | 7 |
| 233 | Petrol        | Color                  | ASTM D 1500-64                            | 2000 | 7 |
| 234 | Petrol        | Corrosion              | IP 154/59                                 | 3000 | 7 |
| 235 | Petrol        | Density                | IP 160/57                                 | 2000 | 7 |
| 236 | Petrol        | Fire Point             | IP 35/42                                  | 2500 | 7 |
| 237 | Petrol        | Flash Point            | IP 35/42                                  | 2500 | 7 |
| 238 | Petrol        | Higher Calorific Value | Bomb Calorimeter                          | 4000 | 7 |
| 239 | Petrol        | Lower Calorific Value  | IP 12/58                                  | 4000 | 7 |
| 240 | Petrol        | Pour Point             | ASTM D 97-57                              | 2000 | 7 |
| 241 | Petrol        | Pour Point             | IP 15/55                                  | 2000 | 7 |
| 242 | Petrol        | Sediment               | ASTM D 4007                               | 2000 | 7 |
| 243 | Petrol        | Smoke Point            | ASTM D 1322-64                            | 4000 | 7 |
| 244 | Petrol        | Viscosity              | Viscometer                                | 3000 | 7 |
| 245 | Petrol        | Viscosity Index        | ASTM D 2270                               | 3000 | 7 |
| 246 | Petrol        | Water Content          | IP 2016-65                                | 2000 | 7 |
| 247 | Pyrolysis Oil | Ash Content            | IP 4/58                                   | 2000 | 7 |
| 248 | Pyrolysis Oil | Boiling Range          | ASTM D 1160                               | 3000 | 7 |
| 249 | Pyrolysis Oil | Carbon Residue         | IP 13/58                                  | 2500 | 7 |

|     |   |   |                         |       |   |
|-----|---|---|-------------------------|-------|---|
| 250 | Pyrolysis Oil                             | Cloud Point   | IP 15/55                | 2000  | 7 |
| 251 | Pyrolysis Oil                             | Color   | ASTM D 1500-64          | 2000  | 7 |
| 252 | Pyrolysis Oil                             | Corrosion   | IP 154/59               | 3000  | 7 |
| 253 | Pyrolysis Oil                             | Density   | IP 160/57               | 2000  | 7 |
| 254 | Pyrolysis Oil                             | Fire Point  | IP 35/42                | 2500  | 7 |
| 255 | Pyrolysis Oil                             | Flash Point   | IP 12/58                | 2500  | 7 |
| 256 | Pyrolysis Oil                             | Gross Calorific Value   | Bomb Calorimeter 12/58  | 4000  | 7 |
| 257 | Pyrolysis Oil                             | Gross Calorific Value   | IP 12/58                | 4000  | 7 |
| 258 | Pyrolysis Oil                             | Net Calorific Value   | Dec-58                  | 4000  | 7 |
| 259 | Pyrolysis Oil                             | Net Calorific Value   | IP 12/58                | 4000  | 7 |
| 260 | Pyrolysis Oil                             | Neutralization Point  | IP 1/58                 | 2000  | 7 |
| 261 | Pyrolysis Oil                             | Pour Point  | ASTM D 97-57            | 2000  | 7 |
| 262 | Pyrolysis Oil                             | Pour Point  | ASTM D 97-57            | 2000  | 7 |
| 263 | Pyrolysis Oil                             | Pour Point  | IP 15/55                | 2000  | 7 |
| 264 | Pyrolysis Oil                             | Sediment  | ASTM D 4007             | 2000  | 7 |
| 265 | Pyrolysis Oil                             | Specific Gravity  | IP 131/57               | 2000  | 7 |
| 266 | Pyrolysis Oil                             | Sulphur Content   | IP 61/59                | 4000  | 7 |
| 267 | Pyrolysis Oil                             | Viscosity   | Viscometer              | 3000  | 7 |
| 268 | Pyrolysis Oil                             | Viscosity   | IP 73/53                | 3000  | 7 |
| 269 | Pyrolysis Oil                             | Viscosity Index   | ASTM D 4007             | 3000  | 7 |
| 270 | Pyrolysis Oil                             | Water Content   | ASTM 74/57              | 2500  | 7 |
| 271 | Solar Cell                                | Complete Cell Test (Cell Efficiency, Voc, Lsc, Vmax, Imax, FF)          | Digital Sun Simulator   | 15000 | 7 |
| 272 | Solar Charge Controller                   | (System Voltage, MX Module Current, Mx Load Current) Package            | Digital Power Analyzer  | 10000 | 7 |
| 273 | Solar Charge Controller                   | (System Voltage, MX Module Current, Mx Load Current) Package            | Digital Power Analyzer  | 10000 | 7 |
| 274 | Solar Panel/Module(51-120 watt)           | Complete Panel/Module Test (Efficiency, Pmax, Voc, Isc, Vmax, Imax, FF) | Digital Sun Simulator   | 12000 | 7 |
| 275 | Solar Panel/Module(1-50 watt)             | Complete Panel Test (Efficiency, Pmax, Voc, Isc, Vmax, Imax, FF)        | Digital Sun Simulator   | 10000 | 7 |
| 276 | Solar Panel/Module(121-260 watt)          | Complete Panel/Module Test (Efficiency, Pmax, Voc, Isc, Vmax, Imax, FF) | Digital Sun Simulator   | 15000 | 7 |
| 277 | Solid fuel (charcoal/coal/coke/briquette) | Fixed Carbon (only)   | Physical                | 6000  | 7 |
| 278 | Solid fuel (charcoal/coal/coke/briquette) | Fixed Carbon and Moisture   | Physical and IP 2016-65 | 6000  | 7 |
| 279 | Solid fuel (charcoal/coal/coke/briquette) | Fixed Carbon and Volatile matter  | Physical and IP 4/58    | 6000  | 7 |
| 280 | Solid fuel (charcoal/coal/coke/briquette) | Fixed Carbon, Volatile matter and Ash                                   | Physical and IP 2016-65 | 8000  | 7 |



|     |  |  |                              |      |   |
|-----|--|--|------------------------------|------|---|
| 281 | Transformer Oil  | Acid Value   | IP 1/58                      | 2000 | 7 |
| 282 | Transformer Oil  | Boiling Range  | ASTM D 1160                  | 3000 | 7 |
| 283 | Transformer Oil  | Density  | IP 131/57                    | 2000 | 7 |
| 284 | Transformer Oil  | Flash Point  | ASTM D 93-62                 | 2500 | 7 |
| 285 | Transformer Oil  | Pour Point   | IP 15/55, ASTM D 97-57       | 2000 | 7 |
| 286 | Transformer Oil  | Specific Gravity                                     | IP 131/57                    | 2000 | 7 |
| 287 | Transformer Oil  | Sulphur Content                                      | IP 61/59                     | 4000 | 7 |
| 288 | Transformer Oil  | Viscosity  | Viscometer, IP 73/53         | 3000 | 7 |
| 289 | Transformer Oil  | Water Content/ Moisture                              | ASTM 74/57                   | 2500 | 7 |
| 290 | Sweage Sludge  | BOD  | Incubation & Titration       | 4000 | 7 |
| 291 | Sweage Sludge  | COD  | Incubation & Titration       | 4000 | 7 |
| 292 | Sweage Sludge  | DO   | DO Meter                     | 4000 | 7 |
| 293 | Sweage Sludge  | DO   | Titration                    | 4000 | 7 |
| 294 | Solid/Powder/Film Materials                              | EDX  | 130 eV EDX                   | 2500 | 7 |
| 295 | Solid/Powder/Film Materials                              | Film Resistance                                      | Four Point Probe             | 2000 | 7 |
| 296 | Solid/Powder/Film Materials                              | Film Surface Morphology                              | AFM                          | 5000 | 7 |
| 297 | Solid/Powder/Film Materials                              | Film Thickness                                       | DektaXT-A                    | 2000 | 7 |
| 298 | Solid/Powder/Film Materials                              | Hall Effect  | 0.55 Tesla                   | 2000 | 7 |
| 299 | Solid/Powder/Film Materials                              | SEM Analysis   | 30KV VP-SEM                  | 2500 | 7 |
| 300 | Solid/Powder/Film Materials                              | UV-VIS-NIR (%R)                                      | 190-2600 nm                  | 2000 | 7 |
| 301 | Solid/Powder/Film Materials                              | UV-VIS-NIR (%T)                                      | 190-2600 nm                  | 1000 | 7 |
| 302 | Solid/Powder/Film Materials                              | UV-VIS-NIR (Absorbance)                              | 190-2600 nm                  | 1000 | 7 |
| 303 | Solid/Powder/Film Materials                              | UV-VIS-NIR (E(S), E(R))                              | 240-2600 nm                  | 2000 | 7 |
| 304 | Solid/Powder/Film Materials                              | UV-VIS-NIR (Specular, Deffuse and Total Reflectance) | 240-2600 nm                  | 5000 | 7 |
| 305 | Solid/Powder/Film Materials                              | XRD  | GBC XRD                      | 5000 | 7 |
| 306 | Solid Wastes i.e. Garbage and Others                     | Ash Content  | ASTM/IP4/58                  | 2000 | 7 |
| 307 | Solid Wastes i.e. Garbage and Others                     | Fixed Carbon   | Physical                     | 4000 | 7 |
| 308 | Solid Wastes i.e. Garbage and Others                     | Higher Calorific Value                               | Bomb Calorimeter             | 4000 | 7 |
| 309 | Solid Wastes i.e. Garbage and Others                     | Moisture   | IP 2016-65                   | 2000 | 7 |
| 310 | Solid Wastes i.e. Garbage and Others                     | Volatile Matter                                      | Mupple Furnace               | 3000 | 7 |
| 311 | Solid Materials (Coke breeze, Magnetic, Dielectric etc.) | Electrical Properties (C,L,R,X,G,B,D,Q,Z,Y,)         | Precision Impedance Analyzer | 5000 | 7 |
| 312 | Waste Water/Effluent Water (4)                           | BOD  | Incubation & Titration       | 4000 | 7 |
| 313 | Waste Water/Effluent Water (4)                           | COD  | Titration                    | 4000 | 7 |

|     |  |  |                    |       |   |
|-----|--|--|--------------------|-------|---|
| 314 | Waste Water/Effluent Water (4)               | DO   | DO Meter           | 4000  | 7 |
| 315 | Octane                                       | Color  | ASTM D 1500-64     | 2000  | 7 |
| 316 | Charcoal                                     | Spontaneous combustion                       | Physical           | 8000  | 7 |
| 317 | Lubricating Oil-4                            | Total Base No.                               | IP 1/58            | 2000  | 7 |
| 318 | Briquette                                    | Flue Gas                                     | Flue Gas Analyzer  | 8000  | 7 |
| 319 | Break oil                                    | Boiling Range                                | ASTM D-1160        | 3000  | 7 |
| 320 | Break oil                                    | Corrosion                                    | ASTM D-130-65      | 3000  | 7 |
| 321 | Break oil                                    | Density                                      | IP 160/57          | 2000  | 7 |
| 322 | Break oil                                    | Viscosity                                    | Viscometer/IP73/53 | 3000  | 7 |
| 323 | Break oil                                    | Water Content                                | IP 74/57           | 2500  | 7 |
| 324 | Gear Oil                                     | Boiling Range                                | ASTM D-1160        | 3000  | 7 |
| 325 | Gear Oil                                     | Corrosion                                    | ASTM D-130-65      | 3000  | 7 |
| 326 | Gear Oil                                     | Density                                      | IP 160/57          | 2000  | 7 |
| 327 | Gear Oil                                     | Viscosity                                    | IP 73/53           | 3000  | 7 |
| 328 | Gear Oil                                     | Water Content                                | IP 74/57           | 2500  | 7 |
| 329 | Pyrolysis Oil                                | Acid Value                                   | IP-1/58            | 2000  | 7 |
| 330 | Coal-4                                       | Calorific value on air dried basis           | Bomb Calorimeter   | 6000  | 7 |
| 331 | Coal-4                                       | Calorific Value on dry basis                 | Bomb Calorimeter   | 6000  | 7 |
| 332 | Coal-4                                       | Calorific Value on Mineral matter free basis | Bomb Calorimeter   | 6000  | 7 |
| 333 | Coal-4                                       | Calorific Value on Moist basis               | Bomb Calorimeter   | 4000  | 7 |
| 334 | Coal-4                                       | Classification                               | Physical           | 10000 | 7 |
| 335 | Coal-4                                       | Sample Inspection/Commodity                  | Physical           | 7000  | 7 |
| 336 | Coal-4                                       | Usage  | Physical           | 6000  | 7 |
| 337 | Dry Mold                                     | Bomb Calorimeter                             | Calorific Value    | 4000  | 7 |
| 338 | Dry Plastic                                  | Bomb Calorimeter                             | Calorific Value    | 4000  | 7 |
| 339 | Improved Cookstove                           | Gas consumption rate test                    | WBT                | 2000  | 7 |
| 340 | Solid fuel<br>(charcoal/coal/coke/briquette) | Calorific Value/Gross Calorific Value        | BOMB Calorimeter   | 4000  | 7 |
| 341 | Solid fuel<br>(charcoal/coal/coke/briquette) | Volaile Matter                               | Physical           | 3000  | 7 |