**Ministry of Education**

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**Occupation: Basic Textile Operations L-I**

**Materials, tools and equipment**

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| Materials: |
| **No** | Items | Qty | Unit | Specification |
| 1 | Cotton fibers/cotton sliver | 1 | K.G | Awash cotton or any |
| **Tools:** |
| **No.** | **Items** | **Qty** | **Unit** | **Specification** |
| 1 | Nose masks | 1 | pc | Any |
| 2 | Tie bags for contamination /waste collection  | 1 | pc | Any |
| 3 | Spindle | 1 | pc | Standard  |
| 7 | Brush | 1 | pc | Standard  |
| **Equipment** |
| **No.** | Items | Qty | Unit | Specification |
| 1 | Manual spinning wheel | 1 | pc | Any |

**Materials, tools & equipment**

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| Materials: |
| No. | Items | Qty | Unit | Specification |
| 1 | Yarn cones/copes/hank of yarn | Full | pc | Specified count of yarn |
| 2 | Cleaning cloth | 100 | gm | cotton |
| **Tools and Equipment** |
| **No.** | **Items** | **Qty** | **Unit** | **Specification** |
| 1 | Splicer | 1 | pcs. |  |
| 2 | Knotter | 1 | pcs |  |
| 3 | Hooks | 1 | pcs |  |
| 4 | Knife | 1 | pcs |  |
| 5 | Bobbin wer | 1 | pcs |  |
| 6 | Hank frame | 1 | any |  |
| **Equipment** |
| No. | Items | Qty | Unit | Specification |
| 1 | Manual warping machine | 1 | pc | manual |
| 2 | Hand loom with full accessories | 1 | pc | manual |
| 3 | Flat knitting machine with full accessories | 1 | pc | Manual  |

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| **Materials:** |
| **No** | **Items** | **Qty** | **Unit** | **Specification** |
| 1 | Pretreated cotton fabric  | 1 | batch | Depends on the production line |
| 2 | Prepared dye solution  | 1 | batch |
| 3 | Process parameter sheet | 1 |  |
| 4 | Bleached fabric | 1 | batch | Woven fabric on production |
| 5 | Prepared printing pastes | 1 | batch | On production  |
| 6 | Personal protective device | 1 | pcs | Standard |
| 7 | Prepared silk screen design | 1 | pcs | One color |
| 8 | Washing tank  | 1 | pc | Standard |
| **Tools:** |
| **No.** | **Items** | **Qty** | **Unit** | **Specification** |
| 1 | Thermometer | 1 | pcs |  standard |
| 2 | PH meter | 1 | pcs | standard |
| 3 | Beaker | 1 | pcs | standard |
| 4 | Personal protective device | 1 | set | standard |
| 5 | Flat table  | 1 | pcs | Not less than fabric size  |
| 6 | Iron | 1 | pcs | Electrical ironing device |
| 7 | gum tape | 1 | pcs | Scotch tape |
| 8 | Stick ruler  | 1 | pcs | Standard |
| **Equipment** |
| **No.** | **Items** | **Qty** | **Unit** | **Specification** |
| 1 | Dyeing bath | 1 | pc | Steel |
| 2 | balance | 1 | Pc | Digital |

**Note**: Materials and tools may be modified by the Assessor, depending on the actual job performed, and location & the standard practices of the country

**Machineries Tools & Instruments required per one candidate:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Machine /Tool/Instrument** | **Qty** | **Specification** | **Remark** |
| 1 | Ginning machine | 1 | May include:* [feeder](http://www.ars.usda.gov/Main/docs.htm?docid=5260&page=2), [dryer](http://www.ars.usda.gov/Main/docs.htm?docid=5260&page=3), [cylinder cleaner](http://www.ars.usda.gov/Main/docs.htm?docid=5260&page=4), [stick machine](http://www.ars.usda.gov/Main/docs.htm?docid=5260&page=5), [lint cleaner](http://www.ars.usda.gov/Main/docs.htm?docid=5260&page=6),[extractor feeder](http://www.ars.usda.gov/Main/docs.htm?docid=5260&page=7),[gin stand](http://www.ars.usda.gov/Main/docs.htm?docid=5260&page=8)& [bale press](http://www.ars.usda.gov/Main/docs.htm?docid=5260&page=9)
 |  |
| 2 | Spinning machine | 1 | May include:* bale plucker , opener, blender, card, draw frame, lap former, comber, roving frame ,ring frame, open end &winding
 |  |
| 3 | Weaving &c.knitting machine | 1 | Warping ,sizing, circular knitting, flat knitting &weaving looms |  |
| 4 | Chemical processing & printing Machine | 1 | Pre-treatment:- Singing, desizing, scouring, bleaching, |  |
| Finishing & printing:- dyeing,stenter,dryer,washing, printing machine |  |

Note: Materials and tools may be modified by the Assessor, depending on the actual job performed, and location & the standard installation practices of the country.

 **Machineries Tools & Instruments required per one candidate:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Machine /Tool/Instrument**  | **Qty** | **Specification** | **Remark** |
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 |  |
| 2 | Spinning machine | 1 |

|  |  |  |
| --- | --- | --- |
| May include: |  |  |
| bale plucker , opener, blender, card, draw frame, lap former, comber, roving frame ,ring frame, open end &winding |

 |  |
| 3 | Weaving &c.knitting machine | 1 | Warping ,sizing, circular knitting, flat knitting &weaving looms |  |
| 4 | Chemical processing & printing Machine | 1 | Pre-treatment:- Singing, desizing, scouring, bleaching, |  |
| Finishing &printing:- dyeing, stenter, dryer, washing, printing machine |  |

Note: Materials and tools may be modified by the Assessor, depending on the actual job performed, and location & the standard installation practices of the country

**Materials, tools and equipment for project 3 Task 1**

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| **Materials:** |
| **No** | **Items** | **Qty** | **Unit** | **Specification** |
| 1 | Grey fabric  | 1 | batch | Depends on the production line |
| 2 | Litmus paper/PH meter | 1 | Pcs |
| 3 | Prepared dye solution  | 1 | batch |
| 4 | Readymade pretreatment solution | 1 | batch |
| 5 | Process parameter sheet |  |  |
| **Tools:** |
| **No.** | **Items** | **Qty** | **Unit** | **Specification** |
| 1 | Thermometer | 1 | pcs |  standard |
| 2 | Beaker | 1 | pcs | standard |
| 3 | Personal protective device | 1 | set | standard |
| **Equipment** |
| **No.** | **Items** | **Qty** | **Unit** | **Specification** |
| 1 | Jigger/winch | **1** | **pc** | Standard |

**Materials, tools & equipment for all tasks of project 3 Task 2**

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| --- |
| **Materials:** |
| **No.** | **Items** | **Qty** | **Unit** | **Specification** |
| 1 | Bleached fabric | 1 | batch | Woven fabric on production |
| 2 | Prepared printing pastes | 1 | batch | On production  |
| 3 | Personal protective device | 1 | pcs | standard |
| 4 | Washing tank  | 1 | pc | standard |
| **Tools:** |
| **No.** | **Items** | **Qty** | **Unit** | **Specification** |
| 1 | Flat table  | 1 | pcs | Not less than fabric size  |
| 2 | Iron | 1 | pcs | Electrical ironing device |
| 3 | gum tape | 1 | pcs | standard |
| 4 | Stick ruler  | 1 | pcs | standard |
| **Equipment** |
| **No.** | **Items** | **Qty** | **Unit** | **Specification** |
| 1 | Rotary screen printing machine | 1 | pc | standard |

Note: Materials and tools may be modified by the Assessor, depending on the actual job performed, and location & the standard installation practices of the country