



NATIONAL QUALIFICATION

12UY0072-5

**DOBBY WEAVE FABRIC STYLIST
LEVEL 5**

REVISION NO:

VOCATIONAL QUALIFICATION AUTHORITY

Ankara, 2012

PREFACE

This reference guide, namely National Qualification of Dobby Weave Fabric Stylist (Level 5) was prepared in accordance with the provisions of the “Regulation on Vocational Qualifications, Testing and Certification” issued pursuant to the Vocational Qualifications Authority (VQA) Law no 5544.

Draft Qualification was prepared by BESOB- Bursa Merchants and Craftsmen Association based upon the protocol signed on 21st May, 2012. After assessing opinions of the relevant organizations and institutions, the draft has been amended accordingly. The final draft was evaluated by the VQA’s **Textile, Garment, and Leather Sector Committee**, which deemed it suitable. It was approved by the Board of Directors of the VQA through its decision no **2012/52 of July 18th, 2012** and decided to be placed within the National Qualification Framework (NQF).

We would like to extend our gratitude to all people, organizations and institutions that have expressed their opinions and contributed to the preparation, examination and verification processes of the qualification. We would like to offer it to the service of all likely beneficiaries.

Vocational Qualification Authority

INTRODUCTION

The key criteria referred to in the national qualification preparation process, the relevant sector committees' review and the VQA's Board of Directors' approval processes are set in the Regulation on Vocational Qualification, Testing and Certification.

National qualification is defined by,

- a) Name and level of the qualification,
- b) Aim and rationale of the qualification,
- c) Vocational standard, Vocational standard units or Qualification Items which form the basis for the qualification,
- d) Training and experience criteria (form, content, duration etc) necessary for the qualification,
- e) Learning outcomes necessary to acquire the qualification,
- f) Assessment procedures and principles to be applicable to in the acquisition of the qualification, minimum testing materials and assessor criteria necessary for assessment,
- g) Validity of the qualification certificate, renewal conditions, supervision of the certificate holder if deemed necessary,
- h) Institution developing the qualification and Sector Committee verifying the Qualification.

National qualifications are built according to the relevant national Vocational standard if there is one or to the relevant international Vocational standard if there is none at the national level.

National qualifications are set in cooperation with the below bodies

- Formal and non-formal education and training institutions,
- Authorized Certification Bodies,
- Institutions having pre-applied for certification to the authority,
- Institutions having drawn up national Vocational standard,
- Vocational organizations.

12UY0072-5 DOBBY WEAVE FABRIC STYLIST (LEVEL 5) NATIONAL QUALIFICATION

1	NAME OF QUALIFICATION	Dobby Weave Fabric Stylist
2	REFERENCE CODE	12UY0072-5
3	LEVEL	5
4	INTERNATIONAL CLASSIFICATION CODE	ISCO 08: 2163
5	TYPE	-
6	CREDIT VALUE	-
7	A) DATE OF PUBLICATION	18.07.2012
	B) REVISION NO	00
	C) REVISION DATE	-
8	AIM	This qualification is prepared for determining the qualifications and certification of doobby weave fabric stylist who is orienting and managing the working team, and is responsible for analyzing doobby weave fabrics produced by using any weaving machines and computer software weave pattern, designing unique fabrics, preparing of its pattern and forming production samples in textile sector in our country.
9	VOCATIONAL STANDARD(S) FORMING THE BASIS FOR THE QUALIFICATION	
12UMS0194-5 Dobby Weave Fabric Stylist (Level 5) National Vocational Standard		
10	REQUIREMENTS TO TAKE QUALIFICATION TEST	
-		
11	STRUCTURE OF QUALIFICATION	
11-a) Compulsory Units		
A1) Quality Assurance, Environmental Protection, Occupational Health and Safety A2) Work Planning and Vocational Development A3) Dobby Weave Fabric Analysis A4) Dobby Weave Fabric Pattern Preparation		
11-b) Elective Units		
-		
11-c) Alternatives for Grouping of Units and Additional Learning Outcomes		
Candidate who applies for test and certification should be successful in all of A1, A2, A3, and A4 items in order to prove her/his vocational qualification.		

12	ASSESSMENT	<p>The candidate should be successful in all of A1, A2, A3, and A4 items so as to meet criteria set forth in assessment section of relevant item.</p> <p>Validity period of test results is 1 year beginning from the date of tests. The candidate, who fails to pass an item or items, has the right for re-examination within this period from the failed item or items.</p> <p>The candidates who will take performance tests for A3 and A4 items shall be able to prefer fabric type for application or doobby weave pattern computer software for examination. The candidate should be informed of the software version before the examination.</p>
13	VALIDITY OF CERTIFICATE	The validity period of the qualification certificate is 5 years beginning from the date of issue.
14	FREQUENCY OF SURVEILLANCE	Candidate shall be subject to surveillance by Assessment Institution at least once within validity period of Vocational Qualification Certificate.
15	ASSESSMENT METHODS TO BE FOLLOWED IN RENEWAL OF EXPIRED CERTIFICATES	At the end of this period, a second surveillance shall be applied for the candidates who can prove that they have worked for at least two years within validity period of the certificate. Certificates of people whom performances are found positive in these surveillance inspections shall be extended by 5 more years without needing an examination. Certificates of those who fail meeting the working criterion as of end of this period or who have completed the second five years shall be renewed by applying performance examination of A4 item.
16	QUALIFICATION DEVELOPMENT INSTITUTION(S)	Bursa Merchants and Craftsmen Association
17	SECTOR COMMITTEE TO VERIFY QUALIFICATION	VQO Textile, Garment, and Leather Sector Committee
18	DATE AND NUMBER OF APPROVAL BY VQA BOARD OF DIRECTORS	18.07.2012-2012/52

12UY0072-4/A1 QUALITY ASSURANCE, ENVIRONMENTAL PROTECTION, UNIT OF QUALIFICATION OF OCCUPATIONAL HEALTH AND SAFETY

1	NAME OF QUALIFICATION ITEM	Quality Assurance, Environmental Protection, Occupational Health and Safety
2	REFERENCE CODE	12UY0072-4/A1
3	LEVEL	4
4	CREDIT VALUE	-
5	A) DATE OF PUBLICATION	18.07.2012
	B) REVISION NO	00
	C) REVISION DATE	-
6	VOCATIONAL STANDARD(S) FORMING THE BASIS FOR THE QUALIFICATION	
12UMS0194-5 Dobby Weave Fabric Stylist (Level 5) National Vocational Standard		
7	LEARNING OUTCOMES	
<p>Learning Outcome 1: Knows the instruction of Occupational Health and safety. Performance Criteria 1.1: Knows Occupational Health and safety rules that are regulated by laws and peculiar to workplace accurately. 1.2: Knows how to prevent the risks that could be encountered in his/her work environment. 1.3: Knows which procedure to be followed in emergencies. 1.4: Wears personal protective equipment suitable for the work is being done. 1.5: Ensures working team to implement the instructions of Occupational Health and safety.</p> <p>Learning Outcome 2: Knows environmental protection and safety measures. Performance Criteria 2.1: 2.2: Knows environmental protection methods appropriate to job. 2.3: Takes necessary precautions for productive usage of natural resources. 2.4: Provides to take environmental protection and security measures by working team.</p> <p>Learning Outcome 3: Knows the requirements of quality assurance system. Performance Criteria 3.1: Describes the quality assurance system accurately. 3.2: Determines the reasons of the faults and knows the procedure to be followed to correct them. 3.3: Knows how to apply technical procedures of quality to quality assurance system of the workplace properly. 3.4: Provides application of requirements of quality assurance system by working team.</p>		
8	ASSESSMENT	
8 a) Theoretical Examination		
<p>Theoretical examination shall be performed in following method: (T1) Written Test: A written text prepared in accordance with test techniques (true-false, fill in the blanks, matching, multiple-choice) shall be applied. Candidate shall be subject to test of 10-15 questions. Average period of time per question shall be estimated as 1 to 2 minutes.</p>		

Scoring: Values of all questions shall be the same and assessed over answer key. Wrong answers are not taken into account. The assessment is made over correct answers only.

T1 test questions shall be designed so as to measure all learning outcomes and performance criteria.

Success Criteria: Candidate should achieve at least 60% in T1 test.

8 b) Performance based Examination

No performance-based examination is stipulated.

8 c) Other Assessment related conditions

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9	QUALIFICATION DEVELOPMENT INSTITUTION(S)/ORGANIZATIONS(S)	Bursa Merchants and Craftsmen Association
10	SECTOR COMMITTEE TO VERIFY QUALIFICATION ITEM	VQO Textile, Garment, and Leather Sector Committee
11	DATE AND NUMBER OF APPROVAL BY VQA BOARD OF DIRECTORS	18.07.2012-2012/52

ANNEXS

ANNEX1: Information on Recommended Training to Earn a Qualification Item

The candidates are recommended to take following trainings in order to be successful in the examinations.

Content of training:

- Quality Assurance
- Basic quality assurance systems
- Basic full quality management
- Environmental protection
- Prevention of environmental pollution
- Prevention of air pollution
- Prevention of water pollution
- Prevention of soil pollution
- Prevention of noise pollution
- Using environment-friendly energies
- Occupational Health and Safety,
- Safety measures in workplace
- Safety measures against Vocational diseases
- Reasons of and measures against accidents and injuries which may occur in the workplace
- Measures against and interventions to fires which may arise in the workplace
- Legal transactions after Vocational accidents
- Relevant labor legislation

12UY0072-5/A2 UNIT OF QUALIFICATION OF WORK PLANNING AND CAREER DEVELOPMENT

1	NAME OF QUALIFICATION ITEM	Work Organization and Vocational Development
2	REFERENCE CODE	12UY0072-5/A2
3	LEVEL	5
4	CREDIT VALUE	-
5	A) DATE OF PUBLICATION	18.07.2012
	B) REVISION NO	00
	C) REVISION DATE	-
6	VOCATIONAL STANDARD(S) FORMING THE BASIS FOR THE QUALIFICATION	
	12UMS0194-5 Dobby Weave Fabric Stylist (Level 5) National Vocational Standard	
7	LEARNING OUTCOMES	
	<p>Learning Outcome 1: Makes business plan and report.</p> <p>Performance Criteria:</p> <ul style="list-style-type: none"> 1.1: Participates in work planning activities; does time planning in accordance with delivery date of the patterns. 1.2: Prepares and ensures to prepare weekly and/or daily work plans accurately. 1.3: S/he carries out work distribution in accordance with knowledge and skills of his/her juniors. 1.4: Reports his/her works and problems that emerge during the process periodically. 1.5: Reports performance evaluations of his/her juniors correctly. 1.6: S/he archives the completed patterns, relevant work forms and swatches properly. <p>Learning Outcome 2: Takes place in activities related to career development.</p> <p>Performance Criteria:</p> <ul style="list-style-type: none"> 2.1: Follows the trends and technological innovations with correct methods. 2.2: Comments the trends and technological innovations according to operating conditions and market place; reports his/her superior. 2.3: S/he does his/her work in accordance with trends and technological innovations and orientates his/her juniors. 2.4: Determines his/her and his/her juniors vocational training deficiencies accurately, takes place in trainings and ensures participation of others, as well. 2.5: Shares his/her acknowledgements and experiences with his/her colleagues. <p>Learning Outcome 3: Works in accordance with Vocational legislation.</p> <p>Performance Criteria:</p> <ul style="list-style-type: none"> 3.1: Follows any changes in Vocational legislations and regulations livingly. 3.2: S/he complies with the rules of the workplace completely. 3.3: Knows legislative regulations related to occupation sufficiently. 3.4: Knows relevant articles of basic labor legislation. 3.5: Describes design registration procedures sufficiently. 	
8	ASSESSMENT	
	8 a) Theoretical Examination	
	<p>Theoretical examination shall be performed in following method:</p> <p>(T1) Written Test:</p> <p>A written text prepared in accordance with test techniques (true-false, fill in the blanks, matching, multiple-choice) shall be applied.</p>	

Candidate shall be subject to test of 15-20 questions. Average period of time per question shall be estimated as 1 to 2 minutes.

Scoring: Values of all questions shall be the same and assessed over answer key. Wrong answers are not taken into account. The assessment is made over correct answers only. T1 test questions shall be designed so as to measure all learning outcomes and performance criteria.

Success Criteria: Candidate should achieve at least 60% in T1 test.

8 b) Performance based Examination

No performance-based examination is stipulated.

8 c) Other Assessment related conditions

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9	QUALIFICATION DEVELOPMENT INSTITUTION(S)/ORGANIZATIONS(S)	Bursa Merchants and Craftsmen Association
10	SECTOR COMMITTEE TO VERIFY QUALIFICATION ITEM	VQO Textile, Garment, and Leather Sector Committee
11	DATE AND NUMBER OF APPROVAL BY VQA BOARD OF DIRECTORS	18.07.2012-2012/52

ANNEXS

ANNEX1: Information on Recommended Training to Earn a Qualification Item

The candidates are recommended to take following trainings in order to be successful in the examinations.

Content of training:

- Work Organization
- Management approach
- Planning
- Organization definitions
- Inter-department direction
- Inspection in work life
- Modern management and organization suitable to sectors
- Personal development
- Communication
- Presentation
- Persuasive skill
- Ability of using time well
- Ability to work under stress
- Personal motivation
- Compliance with workmates
- Self confidence
- Vocational legislation
- Basic labor legislation

12UY0072-5/A3 DOBBY WEAVE FABRIC ANALYSIS QUALIFICATION ITEM

1	NAME OF QUALIFICATION ITEM	Dobby Weave Fabric Analysis
2	REFERENCE CODE	12UY0072-5/A3
3	LEVEL	5
4	CREDIT VALUE	-
5	A) DATE OF PUBLICATION	18.07.2012
	B) REVISION NO	00
	C) REVISION DATE	-
6	VOCATIONAL STANDARD(S) FORMING THE BASIS FOR THE QUALIFICATION	
	12UMS0194-5 Dobby Weave Fabric Stylist (Level 5) National Vocational Standard	
7	LEARNING OUTCOMES	
	<p>Learning Outcome 1: Knows doobby weave technology.</p> <p>Performance Criteria</p> <p>1.1: Knows the main principles of weaving. 1.2: Knows operation principles of mechanical and electronic doobby systems sufficiently. 1.3: Describes Vocational terms, Vocational objects and Vocational signs. 1.4: Recognizes the doobby weave cloth, and distinguishes it from fabrics produced to other production types and patterning systems definitely.</p> <p>Context:</p> <p>1.2: Sufficient level: It contains such level information that s/he can recognize machine parts for Level 5 visually, the phases during weaving and influences of them to the fabric. 1.4: Fabric production types: Knitted, woven, non-woven, etc. Fabric patterning systems: Jacquard, doobby weave, printed fabric, embroidered, etc.</p> <p>Learning Outcome 2: Makes preliminary analysis of doobby weave cloth.</p> <p>Performance Criteria</p> <p>2.1: Prepares the cloth and analyzing materials precisely. 2.2: Determines face of cloth and fabric back. 2.3: Determines the wrap and weft direction of the cloth. 2.4: Counts the warp and weft density by a special loupe. 2.5: Measures the unit value of width and height of report of knitted pattern. 2.6: Determines the frame number that the fabric is woven. 2.7: Determines warp-weft systems of the fabric. 2.8: Determines the warp and weft reports of the fabric in a way that can be used in the computer. 2.9: Weighing the cloth where computes the area, s/he calculates the weight in grams in m2 2.10: Calculates the shrinkage ratio of the fabric in width and length by percentage. 2.11: Calculates the number of weaver's reed as it is woven.</p> <p>Context:</p> <p>2.9: Calculation steps of fabric weight in gram: Specified in success criteria of tasks of "Woven Fabric Designer (Level 5) National Occupation Standards C.5 and C.6". 2.10: Steps of calculation of shrinkage ratio of the fabric in width and length: Specified in success criteria of tasks of "Woven Fabric Designer (Level 5) National Occupation Standard C.7".</p>	

Learning Outcome 3: Analyzes of yarns of the doobby weave cloth.**Performance Criteria**

- 3.1: Knows how to classify the yarns that are commonly used in doobby weave fabrics according to their raw materials and fiber types sufficiently.
- 3.2: Knows in which system the yarns are enumerated according to their features.
- 3.3: Determines the types and features of the warp and weft yarns that are commonly used in doobby weaves.
- 3.4: Knows the solutions for analyzing the yarns of which types and features could not be determined. ,
- 3.5: Weighs the yarns of warp and weft, and calculates their numbers.
- 3.6: Determines the numbers of warp and weft yarns that are commonly used in doobby weaves by estimating them.

Context:

- 3.1: Classifying according to raw material: Cotton is natural, polyester is artificial, etc.
Classifying according to fiber types: Chopped fiber, filament.
- 3.3: Types of the yarns: Cotton, polyester, viscose, etc.
Yarn features: It contains the physical features derived from fiber type and manufacturing technologies. Chopped fiber, textured, intermingled, glace, twisted, hosiery, etc.
- 3.6: Estimation: It contains estimation of yarn number by comparing it with the same quality and feature yarn and depending on his/her own experience.

Learning Outcome 4: Determines the knitting from doobby weave cloth.**Performance Criteria**

- 4.1: Knows the correct expression form (formula) of basic, derived and combined knitting.
- 4.2: Forms the basic, derived and combined knitting on design paper.
- 4.3: Recognizes the sectional view of the basic, derived and combined knitting.
- 4.4: Determines every knitting area on the fabric visually.
- 4.5: Knows the features of basic knitting, their influences on fabric appearance and structure.
- 4.6: By analyzing the basic, derived and combined knitting over the fabric, prepares design knitting report in a way that can be used in the computer.
- 4.7: Fills in the relevant analysis report or work form completely.

8 ASSESSMENT**8 a) Theoretical Examination**

Theoretical examination shall be performed in following method:

(T1) Written Test:

A written text prepared in accordance with test techniques (true-false, fill in the blanks, matching, multiple-choice) shall be applied. Candidate shall be subject to test of 25-30 questions. Average period of time per question shall be estimated as 1 to 2 minutes.

T1 test questions shall be designed so as to measure all performance criteria of all learning outcomes to be measured in scope of theoretical examination.

Scoring: Values of all questions shall be the same and assessed over answer key. Wrong answers are not taken into account. The assessment is made over correct answers only.

Success Criteria: 25% of T1 examination score shall be added into total score.

8 b) Performance based Examination

Performance-based examination shall be performed in following method:

(P1) Knitting drawing examination

Candidate shall be subject to knitting drawing test of 3-5 questions. Candidates shall be asked to create basic and combined knits on design paper, whose formulas are given. Average period of time per question shall be estimated as 5-6 minutes.

P1 test questions shall be designed so as to measure 4.1 and 4.2 success criteria.

Scoring: Values of all questions shall be the same and assessed over answer key. Wrong answers are not taken into account. The assessment is made over correct answers only.

Success Criteria: 5% of P1 examination score shall be added into total score.

(P2) Dobby Weave Fabric Analysis Application

The candidate shall be asked to analyze sample doobby weave fabric and prepare a report (complete relevant design paper and forms) by using technical data obtained as result of that analysis.

P2 examination shall be designed so as to measure all performance criteria of all learning outcomes to be measured in scope of theoretical examination.

Time: Period of performance examination is corresponding to the period used under workplace conditions but not more than work hours of one work day.

Scoring: Checklists to include parameters which meet relevant success criteria of learning outcomes and whose scores were defined shall be prepared. Checklists shall also include standard deviation values of analysis results.

Success Criteria: 70% of P2 examination score shall be added into total score.

8 c) Other Assessment related conditions

Sample doobby weave fabric to be given to candidate should include necessary technical parameters defined with single warp - multiple weft, multiple warp - single weft, or multiple warp - multiple weft so as to measure technical qualification of the candidate. Multiple samples can be used as assessment material.

Total success score: Candidate should score at least 80 in order to be successful. Total success score is calculated by summing 25% of score from T1 examination, 5% of score from P1 examination, and 70% of score from P2 examination. Validity period of test results is 1 year beginning from the date of tests. Candidates who cannot achieve sufficient score shall have the right to take examinations of qualification items they want (T1, P1, P2), again. Results of the scores from the latest examinations (T1, P1, P2) shall be taken into account in calculation of total score.

9	QUALIFICATION DEVELOPMENT INSTITUTION(S)/ORGANIZATIONS(S)	Bursa Merchants and Craftsmen Association
10	SECTOR COMMITTEE TO VERIFY QUALIFICATION ITEM	VQO Textile, Garment, and Leather Sector Committee
11	DATE AND NUMBER OF APPROVAL BY VQA BOARD OF DIRECTORS	18.07.2012-2012/52

ANNEXS

ANNEX1: Information on Recommended Training to Earn a Qualification Item

To be successful in the examinations it is recommended to the candidates

- a) To complete textile-weaving education in formal education institutions in high school, associate or undergraduate level or
- b) To complete theoretical and practical training in woven fabric designing in non-formal education institutions or
- c) Having worked as doobby WEAVE cloth designer at least 3 years or
- d) Having the education content specified below.

Content of Training:

- Weaving Technology
- Basic weaving principle
- Dobby weaving machines
- Textile Technology
- Basic blend and comb tape
- Basic yarn and coil winding
- Yarn numbering systems
- Yarn number calculations
- Determination methods of yarn types and features
- Calculation of fabric gram weights
- Calculation of shrinkage of fabric in width and length
- Basic color knowledge
- Basic dyeing
- Basic pressing
- Basic finish
- Basic ready-made
- Basic embroidery
- Basic knitting
- Physical and chemical tests
- Weaving Knits
- Plain weave and derived knits
- Fustian and derived knits
- Satin and derived knits
- Crepe and derived knits
- Cord and derived knits
- Knits in the single warp-multiple weft system
- Knits in the multiple warp-single weft system
- Knits in the multiple warp-multiple weft system
- Woven Fabric Analysis
- Weaving draft and doobby reports
- Comb number and comb width calculations
- Warp wire number calculations
- Design knit report accounts
- Main braided fabric analysis
- Derived braided fabric analysis
- Striped fabric analysis
- Pile fabric analysis
- Crepe braided fabric analysis
- Cord braided fabric analysis
- Fabric analysis in the single warp-multiple weft system
- Fabric analysis in the multiple warp-single weft system
- Fabric analysis in the multiple warp-multiple weft system

12UY0072-5/A3 QUALIFICATION ITEM OF PREPARATION OF DOBBY WEAVE FABRIC DESIGN

1	NAME OF QUALIFICATION ITEM	Dobby Weave Fabric Pattern Preparation
2	REFERENCE CODE	12UY0072-5/A4
3	LEVEL	5
4	CREDIT VALUE	-
5	A) DATE OF PUBLICATION	18.07.2012
	B) REVISION NO	00
	C) REVISION DATE	-
6	VOCATIONAL STANDARD(S) FORMING THE BASIS FOR THE QUALIFICATION	
	12UMS0194-5 Dobby Weave Fabric Stylist (Level 5) National Vocational Standard	
7	LEARNING OUTCOMES	
	<p>Learning Outcome 1: Makes preliminary study for original doobby weave fabric design.</p> <p>Performance Criteria</p> <p>1.1: Knows the influences of the usage area of the fabric and target market on the design.</p> <p>1.2: Knows the factors in determining the structure and design of the fabric.</p> <p>1.3: Knows how to search for yarn.</p> <p>1.4: Knows the factors in determining new yarn features appropriate to the fabric that shall be designed.</p> <p>1.5: Knows the effects of the yarn features and its costs to design.</p> <p>1.6: Obtains the resource magazines, fabrics, archives, patterns, the reports to be filled in and the work forms completely.</p> <p>1.7: Prepares the computer and other equipments according to user manual.</p> <p>1.8: Opens those appropriate programs to process steps in the computer.</p> <p>Learning Outcome 2: Knows the factors in determining the transactions to be applied to during manufacturing process.</p> <p>Performance Criteria</p> <p>2.1: Knows the factors in determining the preparation transactions of weaving.</p> <p>2.2: Knows the factors in determining the type of weaving machine.</p> <p>2.3: Knows technical equipment changes could be made in weaving machine.</p> <p>2.4: Knows the transactions and techniques to be used after weaving regarding the fabric that is designed</p> <p>2.5: Knows the effects of the costs of the transactions to be used during manufacturing process to design.</p> <p>Context:</p> <p>2.2: Type of weaving machine: According to opening shedding system, weft insertion system, woven fabric, its width, etc.</p> <p>2.3: Technical equipment: Additional pulley system, additional pleating apparatus, additional warder's beam apparatus, etc.</p> <p>2.4: Transactions and techniques after weaving: Pressing, embroidery, burning, etc.</p> <p>Learning Outcome 3: Makes preparations for doobby weave fabric design for manufacturing</p> <p>Performance Criteria</p> <p>3.1: Knows warp-weft density and the factors in determining their systems.</p> <p>3.2: Determines comb width of the fabric.</p> <p>3.3: Determines the correct comb number by taking into consideration available combs in the business.</p> <p>3.4: By determining edge warp wire number and floor warp wire number, calculates total wire number.</p>	

3.5: Enters the data of warp and weft density, comb number, comb width, fabric width, total warp wire number, shrinkage data of the fabric in width and length into the computer.

3.6: Chooses the color and yarn type on the computer.

Learning Outcome 4: Prepares manufacturing plans of the dobby weave fabric pattern for manufacturing

Performance Criteria

4.1: Knows the influences of yarn features on knit and fabric appearance.

4.2: Knows which face of the cloth shall be up during weaving.

4.3: Forms a new pattern knit report for the fabric that s/he designed.

4.4: Enters the data about knit report into the computer.

4.5: Enters the knits that were analyzed and/or new knits to archive into the computer.

4.6: Knows the factors that affect choosing of edge knit.

4.7: Knows the factors in determining the weaving draft

4.8: Forms new weaving draft plans and comb weaving draft plans.

4.9: Preparing dobby and weaving draft plans according to new knit report that s/he designed, enters them into the computer.

4.10: Chooses alternative warp and weft plans or forms new ones.

4.11: Preparing the warp-weft plans; enters the data into the computer.

4.12: Determining machine functions that shall be used and edge knit, describes them in the computer.

4.13: Forms fabric appearance (simulation) in the computer.

4.14: According to specified coding, gives the appropriate code to the pattern and records it in the computer correctly.

4.15: Makes the dobby and weft plans that created ready for entering weaving machine.

4.16: Calculates unit values of dimensions of pattern knit report on the fabric.

Context:

4.12: Machine functions: Regulator, sectional weft density, etc.

Learning Outcome 5: Forms production sample

Performance Criteria

5.1: Calculates the amount of warp and weft yarns to be used in the fabric according to running meter unit.

5.2: Knows how to obtain the cost information of the transactions to be applied to during manufacturing process.

5.3: Knows how to fill in the relevant form about necessary technical information for weaving, calculating cost and gram weight accounts completely; and ensures it to be filled in.

5.4: Knows how to fill in the relevant form about transactions of the production sample after weaving completely, and ensures it to be filled in.

5.5: Knows how to deliver the dobby and weft plans, work forms and fabric sample to right person or unit in due time and in accordance with the instructions; and ensures it to be delivered.

5.6: Knows the procedure for following and providing to be followed the phases of production sample during and after weaving.

5.7: Knows frequent setbacks run into during weaving and solutions of them sufficiently.

5.8: Distinguishes that the faults in the production sample are arising out of pattern or other factors.

5.9: Corrects the faults arising out of pattern in the production sample.

5.10: Reports the faults that are not arising out of pattern in the production sample right persons or units in written and in accordance with instructions.

5.11: Prepares yarn and color variant appropriate to fabric.

5.12: S/he has basic color knowledge.

5.13: Calculates total running meter weight of the fabric.

Context:

5.7: Frequent problems: Weft-warp breaking, lamellae closure, warp crack, seam pucker on the edge, vb.

5.12: Basic color knowledge: Main-secondary colors, bright-cold colors, color wheel, neutral-pastel colors.

8	ASSESSMENT	
8 a) Theoretical Examination		
Theoretical examination shall be performed in following method: (T1) Written Test: A written text prepared in accordance with test techniques (true-false, fill in the blanks, matching, multiple-choice) shall be applied. Candidate shall be subject to test of 30-35 questions. Average period of time per question shall be estimated as 1 to 2 minutes. T1 test questions shall be designed so as to measure all performance criteria of all learning outcomes to be measured in scope of theoretical examination. Scoring: Values of all questions shall be the same and assessed over answer key. Wrong answers are not taken into account. The assessment is made over correct answers only. Success Criteria: 30% of T1 examination score shall be added into total score.		
8 b) Performance based Examination		
Performance-based examination shall be performed in following method: (P1) Dobby Weave fabric pattern preparation application The candidate shall be asked to work on computer with a pattern whose doobby weave fabric appearance and structure were defined and to prepare production plans and fill relevant forms. P1 examination shall be designed so as to measure all performance criteria of all learning outcomes to be measured in scope of performance-based examination. Time: Period of performance examination is corresponding to the period used under workplace conditions but not more than work hours of one work day. Scoring: Checklists to include parameters which meet relevant success criteria of learning outcomes and whose scores were defined shall be prepared. Checklists shall also include standard deviation values of analysis results. Depending on the preference of examination and certification institution; the assessment may be performed over computer files or weaved fabric (product). Success Criteria: 70% of P1 examination score shall be added into total score.		
8 c) Other Assessment related conditions		
Sample doobby weave fabric to be given to candidate should include necessary technical parameters defined with single warp - multiple weft, multiple warp - single weft, or multiple warp - multiple weft so as to measure technical qualification of the candidate. Total success score: Candidate should score at least 80 in order to be successful. 30% of T1 examination score and 70% of Pr examination score shall be summed to calculate total success score. Validity period of test results is 1 year beginning from the date of tests. Candidates who cannot achieve sufficient score shall have the right to take examinations of qualification items they want (T1, P1), again. Results of the scores from the latest examinations (T1, P1) shall be taken into account in calculation of total score.		
9	QUALIFICATION DEVELOPMENT INSTITUTION(S)/ORGANIZATIONS(S)	Bursa Merchants and Craftsmen Association
10	SECTOR COMMITTEE TO VERIFY QUALIFICATION ITEM	VQO Textile, Garment, and Leather Sector Committee
11	DATE AND NUMBER OF APPROVAL BY VQA BOARD OF DIRECTORS	18.07.2012-2012/52

ANNEXES

ANNEX1: Information on Recommended Training to Earn a Qualification Item

To be successful in the examinations it is recommended to the candidates

- a) To complete textile-weaving education in formal education institutions in high school, associate or undergraduate level or
- b) To complete theoretical and practical training in woven fabric designing in non-formal education institutions or
- c) Having worked as doobby WEAVE cloth designer at least 3 years or
- d) Having the education content specified below.

Content of Training:

- Weaving preparatory machinery
- Weaving preparation
- Sizing
- Weaving Draft Technology
- Basic weaving principle
- Dobby weaving machines
- Textile Technology
- Basic blend and comb tape
- Basic yarn and coil winding
- Yarn numbering systems
- Yarn number calculations
- Determination methods of yarn types and features
- Calculation of fabric gram weight
- Calculation of shrinkage of fabric in width and length
- Basic color knowledge
- Basic dyeing
- Basic pressing
- Basic finish
- Basic ready-made
- Basic embroidery
- Basic knitting
- Physical and chemical tests
- Weaving Knits
- Plain weave and derived knits
- Fustian and derived knits
- Satin and derived knits
- Crepe and derived knits
- Cord and derived knits
- Knits in the single warp-multiple weft system
- Knits in the multiple warp-single weft system
- Knits in the multiple warp-multiple weft system
- Computer pattern software training
- Drawing module
- Making latticing module
- Dobby Weave Cloth Patterning
- Preparing pattern knit report
- Design knit report accounts

- Comb number and comb width calculations
- Warp wire number calculations
- Weft amount calculations
- Preparing Weaving draft and doobby report
- Preparing warp and weft report
- Machine functions
- Weaving fabric
- Type change in weaving machine
- Weaving fabric in doobby weaving machine
- Calculation of amount of raw material
- Calculation of amount of production
- Controlling on weaving
- Product controlling methods
- Fabric faults

QUALIFICATION ANNEXES

ANNEX 1 – Qualification Items

- A1) Quality Assurance, Environmental Protection, Occupational Health and Safety
- A2) Work Planning and Vocational Development
- A3) Dobby Weave Fabric Analysis
- A4) Dobby Weave Fabric Pattern Preparation

ANNEX 2 - Terms, Symbols and Abbreviations

Opening Shedding: Process of creating a space between warp yarns by carrying upper position of bottom part of warp threads previously weaving drafted, according to knitting report for passing weft yarn

Analiz: Determination the features of textile materials or fabrics

Dobby: Opening shedding system that provides patterning by giving as frame number as motion warp threads

Dobby plan: Plan that indicates necessary frame motion sequence for weaving the knit

Weft (Weft yarn): Threads in cross direction in a woven fabric

Weft plan: Sequence and number of recurrent weft yarn on the fabric

Weft report: The smallest unit of sequence of recurrent weft yarn on the fabric,

Weft density: The number of weft yarn in unit measurement within the fabric,

Weft system: The number and rate of weft positioned one after the other within the fabric,

Combined knit: The knit that was created by using two or more knits together,

Shrinkage in length: The rate of dimension difference between warp thread on manufactured fabric and warp thread on the machine

Twist number: Cycle number of the yarn in meter

Twisting: Circuit of fibers or threads around each other

Frame: Apparatus that keeps power on the wires on dobbies,

Warp (Warp yarn) : Threads in cross direction in a woven fabric

Warp plan: Sequence and number of recurrent warp yarn on the fabric

Warp report: The smallest unit of sequence of recurrent warp on the fabric

Warp density: The number of warp yarn in unit measurement within the fabric

Warp system: The number and rate of warp positioned one after the other within the fabric

Pattern: Aesthetic element that was created by weaving or pressing methods on textile surfaces

Pattern paper: Squared paper prepared in different measurements used in textile industry

Pattern knitting report: The smallest re-current unit of the pattern on the fabric

Dokuma: Surface creating technique by connecting the warp and weft threads in a way that they shall form a right angle according to certain rules each other

Shrinkage in width : The rate of dimension difference between weft thread on manufactured fabric and weft thread on the machine,

Gram weight: The value of the fabric in the unit area in grams (g/m² and g/running meter, etc.)

Power: Steel wires through which the warp threads are passed one by one, and connected to the frame

Raw fabric: The woven fabric after having treated on weaving machine

ISCO: International Standard Classification of Occupations.

Yarn number: The rate between length and weight of the thread and the number that shows the thickness/thinness of the thread

OHS: Occupational Health and Safety,

Paper rate: The value that is used for making the pattern image on the screen one-to-one with warp and weft density

Personal Protective Equipment (PPE): All kinds of tools, instruments, appliances and devices which are worn, put on or hold by the worker and which protect the worker from one or more hazards arising from the work and effect the health and safety of the worker, and which are designed to suit such purpose,

Fabric type: Fabric diversity produced by different material and warp-weft systems for usage areas such as shirting, tulle/curtain, furnishing, towel, etc.

Produced fabric: Raw fabric after having treated by weaving

Swatch: Drape that is used as a reference for the pattern to be prepared for the production

Knitting: Connections with warp and weft threads in a way that they shall form a right angle according to certain rules each other

Knit report: The smallest unit of the connections with warp and weft threads in a way that they shall form a right angle according to certain rules each other

Making laticing: Placing different knitting to each color area on the drawing in a way that shall form the pattern on the fabric

Loupe: The loupe that is used in determining densities of the threads, reports of knitting and color in analyzing of the fabric

Risk: Potential of loss, injury or other damages to arise from hazards,

Weaving draft plan: The plan that shows a knitting at least how many frames could be woven and which warp shall take place in which frame

Comb: The apparatus that registers the picking on weaving machines to fabric strip, and is passed through openings on the warp threads,

Comb width: Width where the warps are spread out the comb on the fabric

Comb number: Number of openings in one or ten centimeters on the reed

Comb weaving draft plan: Order of passing of warp threads through tooth openings of the comb

Basic knitting: Plain weave, fustian and satin knits

Danger: Potential of damage or injury likely to affect the worker or work place and likely to exist in the workplace or to be caused externally,

Trend: Tendency, dominating current at that time, fashion

Derived knitting: Knits derived from basic knits by various methods

Variant: Diversification by playing on the colors and effects without changing the pattern and knitting of the fabric

ANNEX 3 - Ways of Horizontal and Vertical Progress at Occupation

Horizontal progress:

The candidate entitled to obtain certification from National Qualification of Dobby Weave Cloth Designer (Level 5), shall be held exempted from Qualification Items of "(A1) Quality Assurance, Environmental Protection, Occupational Health and Safety" and (A2) Work Planning and Career Development" of National Qualification of Jacquard Weaving Cloth Designer (5), and by achieving success at the examinations of Qualification Items of "(A3) Jacquard Weaving Fabric Analysis and "(A4) Preparation of Jacquard Weaving Fabric Pattern", shall be entitled to obtain a competence certificate of Jacquard Weaving Fabric Designer (Level 5).

Vertical Progress:

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ANNEX 4 Assessment Criteria

It is necessary to fulfill either of following items for the assessor who shall take charge in the test and certification institution.

- i) Having worked as doobby weave cloth designer at least 4 years and graduated from undergraduate textile programs and to be able to use at least one doobby pattern software program
- ii) Having worked as doobby weave cloth designer at least 6 years and graduated from associate degree programs in textile department and to be able to use at least one doobby pattern software program
- iii) Having worked as trainer/instructor in doobby weave fabric pattern at least for 4 years and graduated from undergraduate textile programs and to be able to use at least one doobby pattern software program
- iv) Having certificate of Dobby Weave Cloth Designer (Level 5) and worked at least 7 years in this field and to be able to use at least one doobby pattern software program