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UNITED NATIONS DEVELOPMENT PROGRAMME

Section 3a –Technical Specifications

Programme Title: PAL10- 00094739 / Right to Education in the Gaza Strip

Procurement of Furniture Works of Jamal Abd Naser School, Abu Tmmam school, Shejaia School, Ali Bin Abi Taleb school and Al Motanby school

Technical Specifications

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SPECIFICATIONS

Item 1-1 Pupil's desk 1 –preparatory grade

General

For 2 pupils elementary school.

Technical Specifications

Height, 70 cm
Dimension of table board: 45 x 115 cm
Thickness of table board: 17mm
Dimension of metal tubes: 20 x 20 mm & 40 x 20 mm
Thickness of metal sheets forming the metal tube: 1.25 mm
Color of the surface of table board (Formica): grey (3130)

1. Metal framework

The metal frame shall be made from hollow metal profile tubes (profilstahl).
Dimensions: 20 x 20 mm and 40 x 20 mm, thickness: 1.25 mm.
All metal pieces shall be welded together properly, strongly and in conformity with regulations.
CO2 welding shall be used.
Additional holes in the metal framework shall be made besides and equal in number to the existing holes to enable future maintenance.
All ends of the metal squares must be covered with black plastic covers.
Plastic heels are to be installed under the legs to elevate the iron parts from the ground and must be fixed with metal screws.
Two bag-holders should be fixed on each side of table.

2. Table board

The table board shall be made of precut plywood (SANDWICH), best quality.
Thickness of table board shall be 17 mm, dimensions: 115 x 45 cm. It shall be covered with colored plastic FORMICA on both sides.
Top Formica thickness: 0.8mm. Color: beige (cream) (3231).
Bottom Formica thickness: 0.5mm.
The table board shall be belted using INJECTION POLYURETHANE THERMOSET.
The belt thickness must be (5- 8mm). Color: black
The table board shall be fixed on the metal framework using galvanized metal screws, (3.5) cm.
Number of screws: 12. It should be fixed from the bottom.

3. Painting

- All metal shall be painted after being treated with at least three stages and cleaned from oil, grease, dust, rust and other dirt using special thermal control painting for metal furniture to form a layer of base painting of (iron phosphate) (0.4 – 0.8) gm/m^2.
- Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace with suitable temperature and time for the process.
- Thickness of painting (60 – 80) micron.
- (Abox polyster powder) paint should be used, color: to be determined by supervisor Marengo No. 7016

Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.

SPECIFICATIONS

Item 1-2 Pupil's desk 2 Secondary grade

A. General

For 2 pupils secondary school.

B. Technical Specifications

Height, 76 cm
Dimension of table board: 45 x 115 cm
Thickness of table board: 17mm
Dimension of metal tubes: 20 x 20 mm & 40 x 20 mm
Thickness of metal sheets forming the metal tube: 1.25 mm
Color of the surface of table board (Formica): grey (3130)

1. Metal framework

The metal frame shall be made from hollow metal profile tubes (profilstahl).
Dimensions: 20 x 20 mm and 40 x 20 mm, thickness: 1.25 mm.
All metal pieces shall be welded together properly, strongly and in conformity with regulations.
CO2 welding shall be used.
Additional holes in the metal framework shall be made besides and equal in number to the existing holes to enable future maintenance.
All ends of the metal squares must be covered with black plastic covers.
Plastic heels are to be installed under the legs to elevate the iron parts from the ground and must be fixed with metal screws.
Two bag-holders should be fixed on each side of table

2. Table board

The table board shall be made of precut plywood (SANDWICH), best quality.
Thickness of table board shall be 17 mm, dimensions: 115 x 45 cm. It shall be covered with colored plastic FORMICA on both sides.
Top Formica thickness: 0.8mm. Color: grey (3130).
Bottom Formica thickness: 0.5mm.
The table board shall be belted using INJECTION POLYURETHANE THERMOSET.
The belt thickness must be (5- 8mm). Color: black
The table board shall be fixed on the metal framework using galvanized metal screws (3.5) cm.
Number of screws: 12. It should be fixed from the bottom.

3. Painting

- All metal shall be painted after being treated with at least three stages and cleaned from oil, grease, dust, rust and other dirt using special thermal control painting for metal furniture to form a layer of base painting of (iron phosphate) (0.4 – 0.8) gm/m^2.
- Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace with suitable temperature and time for the process.
- Thickness of painting (60 – 80) micron.
- (Abox polyster powder) paint should be used, color: to be determined by supervisor Marengo No. 7016

Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust.

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SPECIFICATIONS

Item 2-1 Pupil's chair 1- Preparatory grade

A. General

For 1 pupil dekal

B. Technical Specifications

Height: 42 cm
Dimension of plastic seat: 33.5 x 34.5 cm
Dimension of plastic back: 19.5 x 34.5 cm
Plastic thickness: 5 – 8 mm
Plastic color: GREY
Diameter of iron pipes: 22 mm,10/20mm
Thickness of iron pipes: 1.5 mm,1.25mm
Width of chair: 40 cm

Note: for plastic dimensions measured by cms (± 0.5) cm

1. Metal framework

The metal framework shall be made from metal pipes. Diameter: 22 mm, thickness 1.5 mm.
The lateral metal connections shall be made of elliptical profile 10/20 mm with a thickness of 1.25mm.
All ends of metal pipes should be closed with plastic covers.
Plastic heels are to be installed at the bottom of the chair's legs.
All metal pieces shall be welded together properly, strongly and in conformity with regulations.
CO2 welding shall be used

2. Chair back and seat

Chair back and seat shall be made out of reinforced plastic. Thickness: 5- 8mm.
The chair back shall be fixed by metal screw; length 1.5cm, required number: 4.
It shall be fixed from the backside.
The seat shall be fixed by metal screw; length: 1.5 cm required number: 4.

3. Painting

- All metal shall be painted after being treated with at least three stages and cleaned from oil, grease, dust, rust and other dirt using special thermal control painting for metal furniture to form a layer of base painting of (iron phosphate) (0.4 – 0.8) gm/m^2.
- Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace with suitable temperature and time for the process.
- Thickness of painting (60 – 80) micron.
- (Abox polyster powder) paint should be used, color: to be determined by supervisor Marengo No. 7016

Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.

SPECIFICATIONS

Item 2-2 Pupil's chair 2-Secondary grade

A. General

For 1 pupil dekal.

B. Technical Specifications

Height: 46 cm
Dimension of plastic seat: 37 x 37 cm
Dimension of plastic back: 22.5 x 37.5 cm
Plastic thickness: 5 – 8 mm
Plastic color: grey
Diameter of iron pipes: 22 mm,10/20mm
Thickness of iron pipes: 1.5 mm,1.25mm
Width of chair: 44 cm

Note: for plastic dimensions measured by cms (± 0.5) cm

1. Metal framework

The metal framework shall be made from metal pipes. Diameter: 22 mm, thickness 1.5 mm.
The lateral metal connections shall be made of elliptical profile 10/20 mm with a thickness of 1.25mm.
All ends of metal pipes should be closed with plastic covers.
Plastic heels are to be installed at the bottom of the chair's legs.
All metal pieces shall be welded together properly, strongly and in conformity with regulations.
CO2 welding shall be used

2. Chair back and seat

Chair back and seat shall be made out of reinforced plastic. Thickness: 5- 8mm.
The chair back shall be fixed by metal screw; length 1.5cm, required number: 4.
It shall be fixed from the backside.
The seat shall be fixed by metal screw; length: 1.5 cm required number: 4.

3. Painting

- All metal shall be painted after being treated with at least three stages and cleaned from oil, grease, dust, rust and other dirt using special thermal control painting for metal furniture to form a layer of base painting of (iron phosphate) (0.4 – 0.8) gm/m^2.
- Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace with suitable temperature and time for the process.
- Thickness of painting (60 – 80) micron.
- (Abox polyster powder) paint should be used, color: to be determined by supervisor Marengo No. 7016

Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.

كرسي طالب ز ح - ديكل

SPECIFICATIONS

Item 3-1 Teacher's desk (class room)

A. General

In class room use.

B. Technical Specifications

1. Metal framework

The metal framework shall be made of hollow metal profile tubes.
Dimensions: 20 x 20 mm and 40 x 20 mm, thickness: 1.25 mm.
All metal pieces shall be welded together properly, strongly and in conformity with regulations.
CO2 welding shall be applied.
Additional holes in the metal framework shall be made equal in number to the existing holes to enable future maintenance.
All ends of the iron squares must be closed with plastic covers.
Plastic heels are to be installed under the legs to elevate the iron parts from the ground and must be fixed with metal screws.

2. Table Board

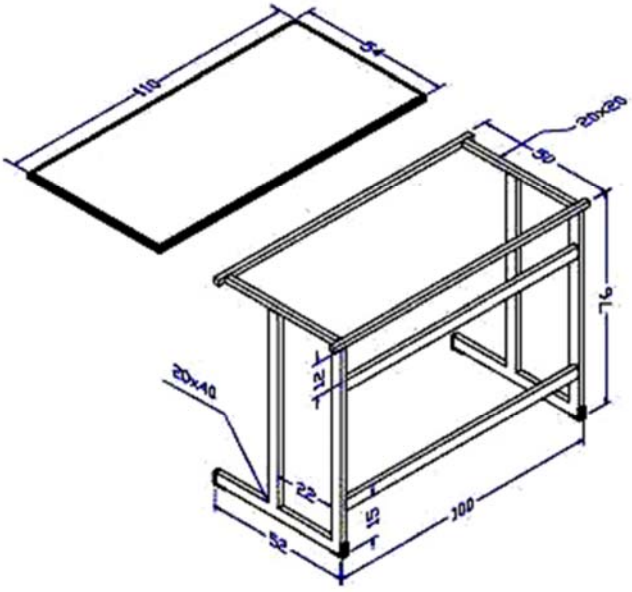
The table board shall be made of precut plywood (SANDWICH), best quality.
Thickness of table board shall be 17 mm, dimensions: 110 x 54 cm. It shall be covered with colored plastic FORMICA on both sides.
Top Formica thickness: 0.8mm. Color: grey (3130).
Bottom Formica thickness: 0.5mm.
The table board shall be belted using INJECTION POLYURETHANE THERMOSET.
The belt thickness must be (5- 8mm). Color: grey
The table board shall be fixed on the metal frame using galvanized metal screws, (3.5) cm.
Number of screws: 12. It should be fixed from the bottom.
A front cover shall be installed which is made of precut plywood (SANDWICH), best quality.
Thickness of the front cover shall be 16mm with dimensions of 110 x 50 cm and shall be covered from both sides and edges using plastic belt (1.5-2mm).
Top Formica thickness (0.8 mm), color: grey (3130).
Bottom Formica thickness (0.5 mm), color: white.
The edges of board should be covered by plastic belt (Formica MAH) thickness (1.5-2 mm), color: black
The cover shall be fixed on the metal frame using galvanized metal screws (3.5) cm. required number 10 screws, should be fixed from inside.

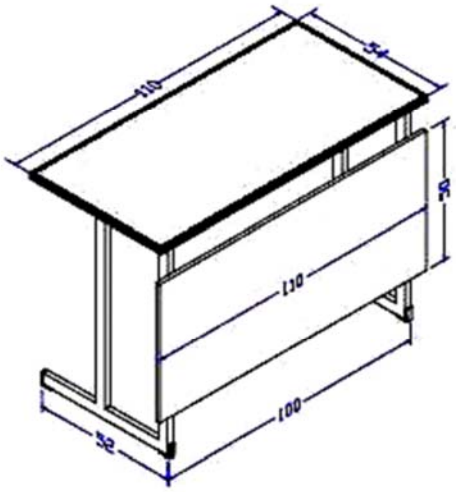
3. Painting

- All metal shall be painted after being treated with at least three stages and cleaned from oil, grease, dust, rust and other dirt using special thermal control painting for metal furniture to form a layer of base painting of (iron phosphate) (0.4 – 0.8) gm/m^2.
- Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace with suitable temperature and time for the process.
- Thickness of painting (60 – 80) micron.
- (Abox polyster powder) paint should be used, color: Marengo No. 7016

Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.

Item Teacher Desk (Classroom)





SPECIFICATIONS

Item 3-2 **Teacher's chair** in **classroom**

A. General

In Classroom, and staff room use

B. Technical Specifications

Height: 46 cm
Dimension of plastic seat: 42 x 43 cm
Dimension of plastic back: 22 x 43 cm
Plastic thickness: 5 – 8 mm
Plastic color: grey .
Diameter of iron profile: (20x20) mm
Thickness of iron profile: 1.25mm

Note: for plastic dimensions measured by cms (± 0.5) cm

1. Metal framework

The metal framework shall be made from profile. Diameter: (20x20) mm, thickness 1.25 mm.
All ends of metal profile shall be closed with plastic covers.
Plastic heels are to be installed at the bottom of the chair's legs.
All metal frame work shall be welded together properly, strongly and in conformity with regulations.
CO2 welding shall be used

2. Chair back and seat

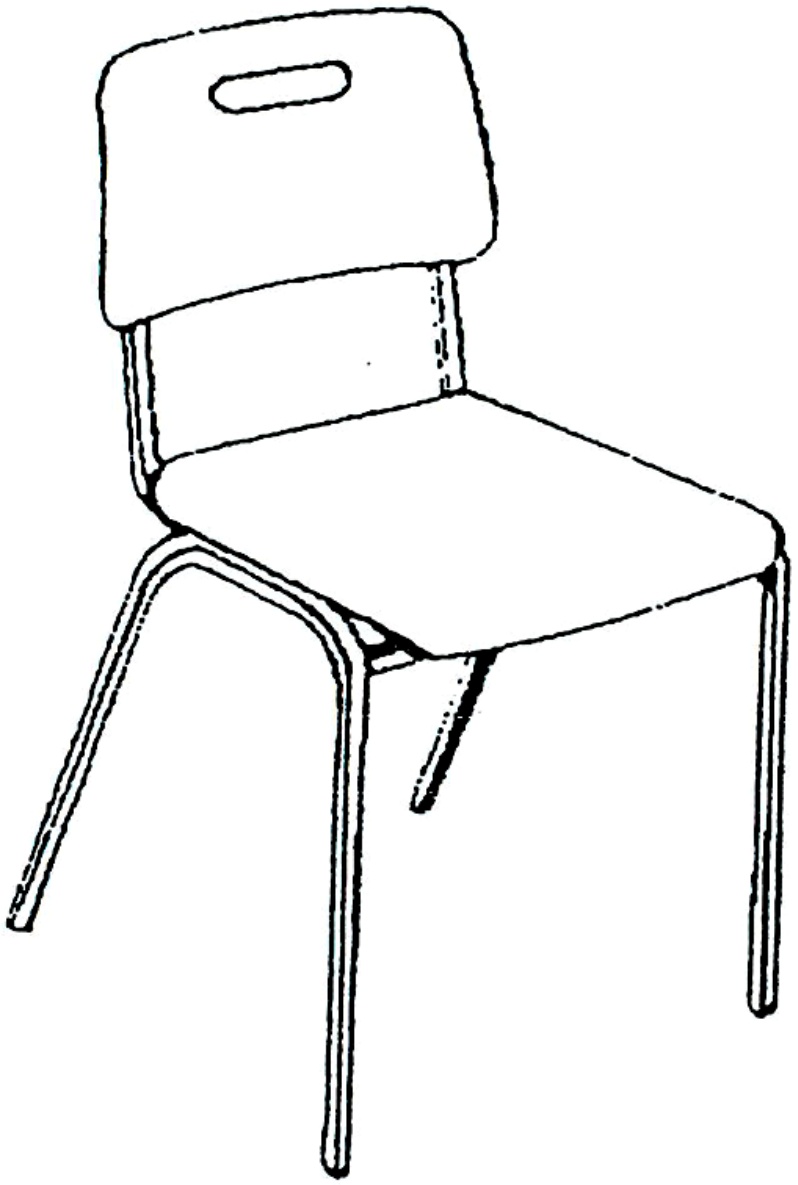
Chair back and seat shall be made out of reinforced plastic. Thickness: 5- 8mm.
The chair back shall be fixed by metal screw; length 3.5cm, required number: 2.
It shall be fixed from the backside.
The seat shall be fixed by metal screw; length: 3.5 cm required number: 2.

3. Painting

- All metal shall be painted after being treated with at least three stages and cleaned from oil, grease, dust, rust and other dirt using special thermal control painting for metal furniture to form a layer of base painting of (iron phosphate) (0.4 – 0.8) gm/m^2.
- Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace with suitable temperature and time for the process.
- Thickness of painting (60 – 80) micron.
- (Abox polyster powder) paint should be used, color: Marengo No. 7016

Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.

Item Teacher Chair



SPECIFICATIONS

Item 4-1 Diana chair

A. General
In administration rooms

B. Technical Specifications

Metal chair, coated with leather-Diana

1. Metal framework
• The metal framework legs shall be made of ofali steel 15\30 diameters, thickness: 1.25mm.
•all metal ends should be covered with plastic
• All metal pieces are to be welded together properly, strongly and in conformity with regulations.
• Co2 welding shall be used.
• Plastic heels are to be installed under the legs to elevate the iron parts from the ground.

2. Chair seat
• the seat is made from sandwich wood with thickness of 17mm. Not connecting wood should be used.. the back and seat should be filled with strong sponge of 4cm thickness and coated with good quality leather, color is upon request. provide a sample of the leather.
• The seat is fitted with the metal framework by metal screws. Number of 3.8cm screws :4 from the back and 4 from under the base

3. Painting
• All metal parts shall be painted after being cleaned from oil using special thermal control painting for metal furniture like electrostatic powder, decided by the engineer
• Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace.
• Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.

مستورد ويجب تقديم عينة

SPECIFICATIONS

Item 4-2 Head master chair

A. General

B. Technical Specifications

1. Metal framework

A swivel chair with 5 rolling wheels.
The chair shall have a jack for elevation adjustment.
The arms shall be made of iron and covered with reinforced plastic pieces from top.
The base shall be made of black reinforced plastic.
The seat shall be connected to the base by a chromium rod not less than 30 cm long and 5 cm in diameter.

2. Chair back and seat

It shall be made of plywood (sandwich) with a minimum thickness of 15 mm, best quality.
The chair back and seat shall be upholstered using sponge.
The thickness of sponge for the chair back should not be less than 8 cm and for the seat 10 cm.
Special, good quality cloth shall be used for covering the chair back and seat.
The color shall be chosen by the Ministry.
The wooden seat shall be fixed on the metal base using bolts, with a nut fixed on the wooden seat.
The chair shall be attached to the arms' framework using bolts and a nut fixed on the chair back.
A device (propeller) shall be installed at the back of the chair to control the inclination process forwards and backwards.

مستورد ويجب تقديم عينة

SPECIFICATIONS

Item 4-3	Stool chair

A. General

B. Technical Specifications

1. Chair Frame and Seat

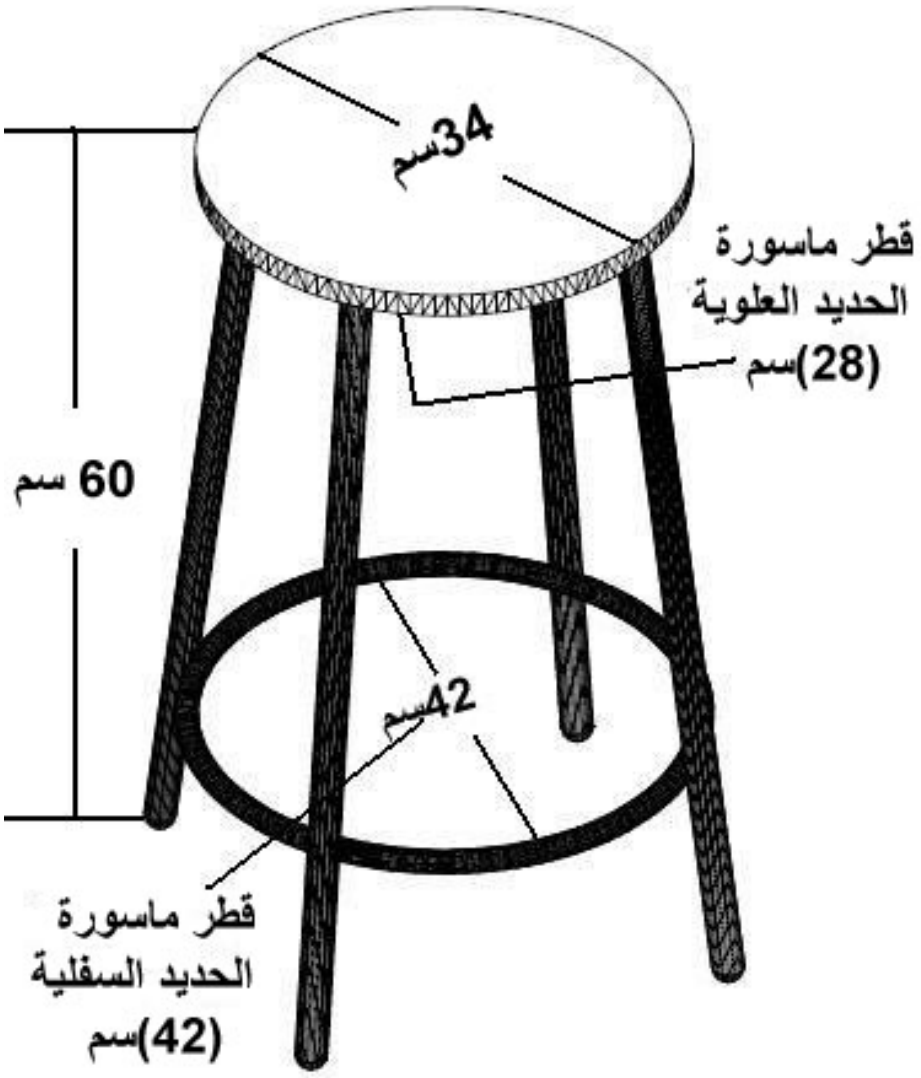
Height: 60 cm .
Four-legged stool chair.
The legs shall be made of metal profile pipe 22 mm in diameter and 1.25 mm thick as shown on attached figure.
The chair shall have two rings made of metal profile pipes of 16 mm in diameter and 1.25 mm in thickness.
All metal parts shall be welded using CO2 continuous welding.
The seat shall have a disc-like shape, concave, diameter 34 cm made of Natural Sweden wood 34 mm thick, painted with lacquer paint.
The seat shall be fixed to the metal framework by using galvanized metal screws, (3 cm).
Number of screws: 4.
Plastic heels are to be installed under the chair at the metal open ends.

2. Painting

- All metal shall be painted after being treated with at least three stages and cleaned from oil, grease, dust, rust and other dirt using special thermal control painting for metal furniture to form a layer of base painting of (iron phosphate) (0.4 – 0.8) gm/m^2.
- Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace with suitable temperature and time for the process.
- Thickness of painting (60 – 80) micron.
- (Abox polyster powder) paint should be used, color: Marengo No. 7016

Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.

Item Stool


34سم
قطر ماسورة
الحديد العلوية
(28)سم
60 سم
42سم
قطر ماسورة
الحديد السفلية
(42)سم

SPECIFICATIONS

Item 4-4 Swivel Chair (STUDENT)

A. General

In computer lab.

B. Technical Specifications

1. Metal framework

- A swivel chair with 5 rolls, the back and seat are upholstered
- The seat should be made from strong aluminum.
- Works by a manual control (Jack shiny chrome plated + slab) for lifting and unloading, excellent type "Italian", "should provide a sample of Jack and the slab before the installation"
- Can be controlled by the slab to move the back to behind and forward.
- The chair arms coated (glossy chrome) and install rests for hands.

2. Chair back and seat

- The back and the seat upholstered with sponge and covered by medical leather.
- The chair should be wrapped by gelatin or nylon to save them during transport and storage.
- (Sample should be provided)

كرسي طالب لمختبر الحاسوب

SPECIFICATIONS

Item 5-1 Head master desk

A. General
Dimensions: 3-Drawers and Cabinet, 70x160 with Height 75cm

B. Technical Specifications
1-Desk
• The desk shall be made of "sandwich" wood "A" type, thickness: 17 mm as min. surrounding by beech wood zan bark. Not use the connected wood in all desk parts.
• The cant installed from the same wood on the bottom of the frame face width of 3 cm and the cants of the 2 side stands from front and back, width 9 cm to become Thickness 34 mm.
• Install beech wood zan wood frame, thickness not less than 10mm surrounding the wood surface edge.
• The middle stand should be made from the surface wood and zan edge fixed on the low edge and the stand should have the same height.
• The wood surface should put together by metal clips particularly for furniture. (Provide sample).
• Knobs of good quality shall be installed on the compartment and drawer in a way which allows for smooth opening and closing.

2. Cupboard & Drawers
• Make from the same desk wood.
• Back and floors should be fixed from Ablakaj wood, thickness 4 mm.
• Combines the rudder of the cupboard by metal hinges excellent quality such as Hettish or its equivalent, taking into account that the cupboard to the left of the desk.
• Install metal knob of the cupboard and drawers of excellent type so that at least the weight of the knob about 35 gm. (provide a sample).
• Locker should be installed, double closes, good quality, for top drawer and the helm of the cupboard.
• The drawers and cupboard should be movable with good quality wheels.

3. Painting
• Should emery and soften the wood and prepare it for paint
• Paint all wood’s surfaces (as required color) properly with glossy varnish layer

SPECIFICATIONS

Item 5-2 Item Working table

Wooden Cabinet with Glass doors, length without legs 180, width 120, depth 40 cm

- Made of "sandwich" wood "A" type, thickness: 17 mm as min. surrounding by zan bark. Not use the connected wood in all desk parts.
- All parts should be gathered by ironed angles width 3.5 cm, and should be balanced.
- Install a vertical partition divide the cabinet into 2 equal parts.
- The back should be installed by Ablakaj wood, good quality, and without any knots, thickness 4 mm.
- The back fixing by Rakoll glue or equivalent and pins not less than 30 pins.
- The edges of cabinet should be coated by zan cant thickness not less than 1 cm, including the shelves, dividers and shutters from inside and outside.
- Install unstable shelves number 3 for each part from the same wood.
- Install 2 shutters for the cabinet from the same wood by Hettish knobs or equivalent, fixed by glass from inside 4mm.
- Should emery and soften the wood and prepare it for paint
- Paint all wood’s surfaces (as required color) properly with glossy varnish layer.
- Install metal knobss of excellent type so that at least the weight of the knob about 35 gm. grey color. Locker should be installed, double closes, and good quality (provide a sample).
- Install Negel legs, dark red color, height 10 cm.

(The ministry should be consulted regarding the sample)

SPECIFICATIONS

Item 5-3 Reading table

A. General

B. Technical Specifications

1. Metal framework

The metal framework shall be made from pipe steel with diameter of 32 mm for legs, and 19 mm diameter for stiffeners (عراضات) of 1.25 mm thick.

A metal sheet cover 2 mm thick and a 150 mm wide should be installed around the table at the top level to fix the face.

The bottom edge of the metal frame shall be covered with plastic heals.

All metal pieces are to be welded together properly, strongly and in conformity with regulations.

CO2 welding shall be used.

Plastic heels are to be installed under the legs to elevate the iron parts from the ground.

Table height =76 cm

2. Table board

The table board shall be made of plywood "sandwich" board, best quality.

Thickness of plywood is 17 mm. Dimensions: 120x60 cm

It shall be covered with stretched laminated plastic sheet (Formica MATT) 0.8 mm thick. Color to be determined by the engineer.

The table board shall be thickened by using strips of plywood (sandwich) wood 17 x 30 mm around the backside edges of the table's board.

Beech wood shall be used in belting the edges of the table board 15 mm thick and 34 mm wide.

The beech belt shall be painted with three coats of lacquer paint in addition to prime coat and to be fixed by using adhesive materials with no nailing. Fixing of the beech belt shall be done after the lamination with the plastic sheets.

The table board shall be fixed on the metal framework using metal screws (2cm). Number of screws: 10.

3. Painting

- All metal shall be painted after being treated with at least three stages and cleaned from oil, grease, dust, rust and other dirt using special thermal control painting for metal furniture to form a layer of base painting of (iron phosphate) (0.4 – 0.8) gm/m^2.
- Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace with suitable temperature and time for the process.
- Thickness of painting (60 – 80) micron.
- (Abox polyster powder) paint should be used, color: Marengo No. 7016

Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.

SPECIFICATIONS

Item 5-4 Circle reading table

A. General

B. Technical Specifications

1. Metal framework

The metal framework shall be made from pipe steel with diameter of 32 mm for legs, and 19 mm diameter for stiffeners (عراضات) of 1.25 mm thick.

A metal sheet cover 0.8 mm thick and a 100 mm wide should be installed around the table at the top level as shown on attached figure.

The bottom edge of the metal frame shall be covered with plastic heals.

All metal pieces are to be welded together properly, strongly and in conformity with regulations.

CO2 welding shall be used.

Plastic heels are to be installed under the legs to elevate the iron parts from the ground.

The table height is 76 cm

تركب قطع حديد مبسط على الهيكل المعدني سماكة لا تقل عن 2 ملم وبعرض 1.5 سم لتثبيت الوجه

2. Table board

The table board shall be made of plywood "sandwich" board, best quality.

Thickness of plywood is 17 mm. diameter : 110 cm

It shall be covered with stretched laminated plastic sheet (Formica MATT) 0.6 mm thick. Color to be determined by the ministry (3130).

The table board shall be thickened by using strips of plywood (sandwich) wood 17 x 30 mm around the backside edges of the table's board.

Beech wood shall be used in belting the edges of the table board 15 mm thick.

The beech belt shall be painted with three coats of lacquer paint in addition to prime coat and to be fixed by using adhesive materials with no nailing. Fixing of the beech belt shall be done after the lamination with the plastic sheets.

The table board shall be fixed on the metal framework using metal screws (1.5cm). Number of screws: 8.

The table height is 76 cm

3. Painting

- All metal shall be painted after being treated with at least three stages and cleaned from oil, grease, dust, rust and other dirt using special thermal control painting for metal furniture to form a layer of base painting of (iron phosphate) (0.4 – 0.8) gm/m^2.
- Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace with suitable temperature and time for the process.
- Thickness of painting (60 – 80) micron.
- (Abox polyster powder) paint should be used, color: Marengo No. 7016

Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.

SPECIFICATIONS

Item 5-5 Resource Room table

Metal framework

The metal framework shall be made from steel profile tubes 20 x 20 mm and 40 x 20 mm and 1.25 mm thick.

A metal sheet cover 0.8 mm thick and a 100 mm wide should be installed around the table at the top level as shown on attached figure.

The bottom edge of the metal frame shall be covered with plastic heals.

All metal pieces are to be welded together properly, strongly and in conformity with regulations.

CO2 welding shall be used.

Plastic heels are to be installed under the legs to elevate the iron parts from the ground.

The metal framework is 51 width X 56 height.

Table height =71 cm

2. Table board

The table board shall be made of plywood "sandwich" board, best quality.

Thickness of plywood is 17 mm. Dimensions: 60X50 cm

It shall be covered with stretched laminated plastic sheet (Formica MATT) 0.8 mm thick. Color to be determined by the MoEHE (3130).

The table board shall be thickened by using strips of plywood (sandwich) wood 17 x 50 mm around the backside edges of the table's board.

Beech wood shall be used in belting the edges of the table board 15 mm thick and 34 mm wide.

The beech belt shall be painted with three coats of lacquer paint in addition to prime coat and to be fixed by using adhesive materials with no nailing. Fixing of the beech belt shall be done after the lamination with the plastic sheets.

The table board shall be fixed on the metal framework using metal screws (2cm). Number of screws: 10.

The front board, drawers and the compartment should be made of (plywood "sandwich) of best quality, thickness (17mm).

The table is comprising of a drawer on the whole dimension of the table with a thickness of 15 cm..

Knobs of good quality shall be installed on drawer in a way allows for smooth opening and closing.

The drawer shall have cylindrical locks of best quality.

The drawers shall slide on steel rails 1.25 mm thick with wheels to ensure smooth movement of the drawers.

A built in tube for pens to be made on table face. (فرز للأقلام)

3. Painting

- All metal shall be painted after being treated with at least three stages and cleaned from oil, grease, dust, rust and other dirt using special thermal control painting for metal furniture to form a layer of base painting of (iron phosphate) (0.4 – 0.8) gm/m^2.
- Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace with suitable temperature and time for the process.
- Thickness of painting (60 – 80) micron.
- (Abox polyster powder) paint should be used, color: Marengo No. 7016

Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.

SPECIFICATIONS

Item 5-6	**Computer table (student)**

A. General
For student use

B. Technical Specifications

Computer Desk: 70X45X110

1. Desk
- The desk shall be made of "sandwich" wood "A" type, thickness: 17 mm as min. surrounding by beech wood zan bark including the back except the right side. Not use the connected wood in all desk parts.
- a frame to be installed width=3cm on surrounding the bottom face so Thickness becomes 34 mm.
- Install beech wood zan for all edges and shelves, thickness not less than 10mm
- plastic heels to be installed (ruler) , 6 heels, fixed with screws, 2 screws for every ruler

the desk should be put together using metal angels of 3.5cm width.
- A vertical divider to be installed on a metal track for the mouse on the right side and a moving shelf for the keyboard on the left side. the back of the desk has the same height on both sides with thickness not less than 10 mm including shelves.

The work include wooden duct with all required power and data cables from the main panel to the socket.
Complete Power socket and data socket should be installed for each table with all required cables or connection.

2. Painting
- Should emery and soften the wood and prepare it for paint
- Paint all wood's surfaces (as required color) properly with glossy varnish layer. the desk should be wrapped with nylon or gelatin to protect it when stored or moved. dimensions: length=110cm. width= 45cm. height= 75cm

SPECIFICATIONS

Item 5-7 Technology table (student)

A. General
For student use

B. Technical Specifications

1. Metal Frame Work

The metal frame shall be made from hollow metal profile tubes (profilstahl).
Dimension: 40 x40 mm, thickness: 3 mm with same dimension of table face.
Table legs are made of metal with 4 legs for each 120 cm, the height of legs are 90cm.
All metal pieces shall be welded together properly, strongly and in conformity with regulations.
CO2 welding shall be used.
Additional holes in the metal framework shall be made besides and equal in number to the original holes to enable future maintenance.
All ends of the metal squares must be covered with black plastic covers.
Plastic heels are to be installed under the legs to elevate the metal frame from the ground and must be fixed with galvanized metal screws.

2. Table Board

The table board shall be made of precut plywood (SANDWICH), best quality.
Thickness of table board shall be 17 mm, dimensions: 120 x 60 cm. It shall be covered with colored plastic FORMICA on both sides.
Top Formica thickness: 0.8mm.
Bottom Formica thickness: 0.5mm.
Beech wood shall be used in belting the edges of the table board 2.5 x 2.5 cm.
The beech belt shall be painted with three coats of lacquer paint in addition to prime coat and to be fixed by using adhesive materials with no nailing. Fixing of the beech belt shall be done after the lamination with the plastic sheets.
The table board shall be fixed on the metal framework using galvanized metal screws, (3.5 cm).
Number of screws: 12. It should be fixed from the bottom.

3. Drawer & accessories

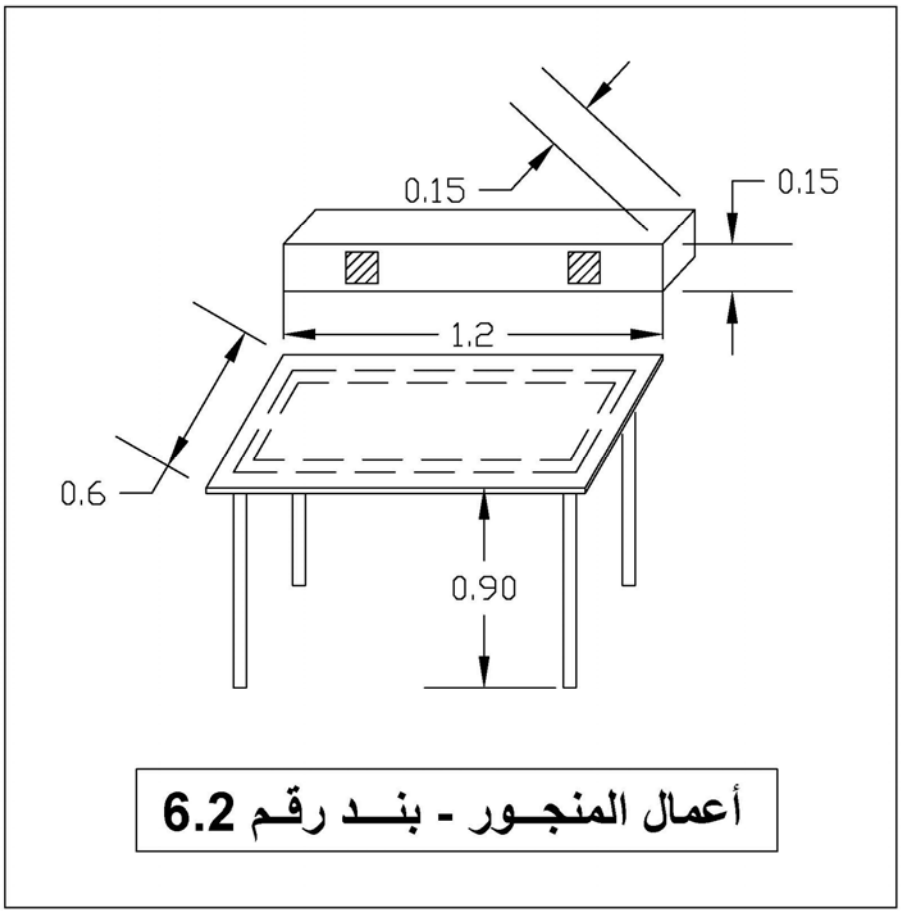
A wooden drawer hanged below the table face shall be centrally fixed with dimension of 120 X 40 X 20 cm with the same type of table face wood, with hand and locker from best quality.
Knobs of good quality shall be installed on the drawers in a way allows for smooth opening and closing.
The drawer shall have cylindrical locks of best quality.
The drawers shall slide on steel rails 1.25 mm thick with wheels to ensure smooth movement of the drawers.
A wooden box of precut plywood (Sandwich) 15cmX15cm dimension and 17 mm thickness with covering of colored plastic FORMICA on both sides should be fixed on the table face.
The table should be provided with triple socket outlet A10 ،V220 bitchino type, with all required wires or electrical foundation, these connections should be hide inside the box..

3. Painting

- All metal shall be painted after being treated with at least three stages and cleaned from oil, grease, dust, rust and other dirt using special thermal control painting for metal furniture to form a layer of base painting of (iron phosphate) (0.4 – 0.8) gm/m^2.
- Automatic spray painting shall be applied to be followed by a drying process in a thermal furnace with suitable temperature and time for the process.
- Thickness of painting (60 – 80) micron.

- (Abox polyster powder) paint should be used, color: Marengo No. 7016

Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.



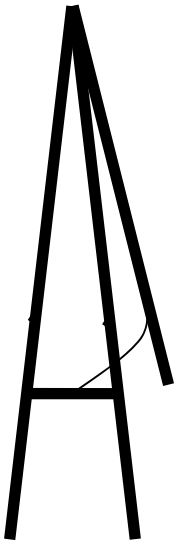
أعمال المنجـور - بنـــد رقـم 6.2

SPECIFICATIONS

Item 5-8 Drawing Stand

Drawing stand with height of 180 cm X 5 cm from Zan x 3cm.
The price includes painting one priming coat and two lazour finishing coats and lucker coat
Two stiffner of zan wood to be fixed to hold the drawing.
Screws of 8mm X10 cm to be fixed from the top.

سم ارتفاعه 180 سم **x5**ستاند رسم من خشب الزان مقاس 3
مدهون وجه اساس ووجه لازور ووجه ورنيش
يثبت من الأعلى ببرغي 8ميلي 10سم
ويوضع عراضتين صغيرتين لحمل اللوحة



SPECIFICATIONS

Item 5-9 طاولة اجتماعات

B. Technical Specifications

The table details is a shown in the photo.

Dimension = 160 X440 cm

1. Desk

• The desk shall be ellipsoid made of "sandwich" wood "A" type, thickness: 17 mm as min. surrounding by beech wood zan bark including the back. Not use the connected wood in all desk parts.

• The cant installed Zan wood on the bottom of the frame face width of 3 cm and the cants of the 2 side stands from front and back, width 9 cm to become Thickness 34 mm.
• Install beech wood zan wood frame, thickness not less than 10mm surrounding the wood surface edge.
• The middle stand should be made from the surface wood and zan edge fixed on the low edge and the stand should have the same height.
• The wood surface should put together by metal clips particularly for furniture. (Provide sample).
Legs are made from Zan with double thickness.
Table height = 76 cm.

2. Painting

• Should emery and soften the wood and prepare it for paint
• Paint all wood's surfaces (as required color) properly with glossy varnish layer. the desk should be wrapped with nylon or gelatin to protect it when stored or moved.

SPECIFICATIONS

Item 6-1 wooden file cabinet 4 drawers

A. General

B. Technical Specifications

1. framework

Made of "sandwich" wood "A" type, thickness: 17 mm as min. surrounding by zan bark. Not use the connected wood in all desk parts. Three vertical dividers should be installed to divide the cabinet into 4 parts. a drawer from the same wood should be installed moving on special metal tracks (مسلوت بيله\سكة) with metal handlers of excellent type 35gm, grey color. provide a sample and a locker of excellent type. provide a sample

- All parts should be gathered by ironed angles width 3.5 cm, and should be balanced.
- for every drawer two metal angels should be installed to hang files. provide a sample
- The back should be installed by the same type of wood,

a Zan wood belt should be made for all wood edges with thickness of 10mm

- Should emery and soften the wood and prepare it for paint
- Paint all wood's surfaces (as required color) properly with glossy varnish layer.
- Install plastic heels (دقرة\مسطرة) with 8 screws, 2 for every ruler, dimensions: depth= 50cm. width= 45cm. height= 133cm

2. Dimensions

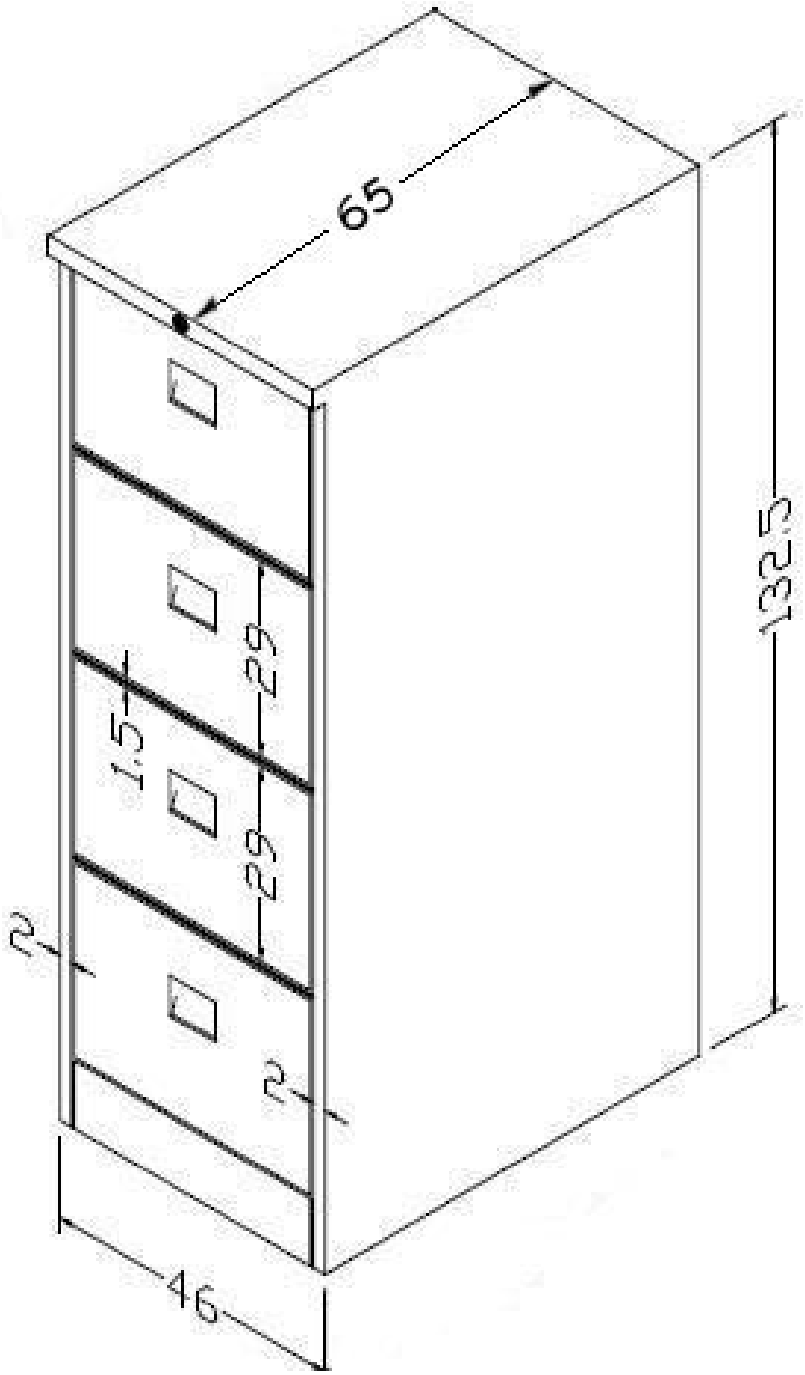
Length: 132.5 cm, Breadth: 46cm, Depth: 65 cm.

4. Painting

Should emery and soften the wood and prepare it for paint

- Paint all wood's surfaces (as required color) properly with glossy varnish layer.

Item File Cabinet (4 Drawer)



SPECIFICATIONS

Item 6-2 Wooden cabinet with 10 doors

Wooden Cabinet for teachers with 10 compartments
Width = 80 cm
Depth = 40 cm
Height = 200 cm without legs

- The Cabinet shall be made of "sandwich" strong wood "A" type, thickness: 17 mm, encrusted with beech wood (zan) layer. Not to use the connected wood in all cabinet's parts
- 4mm Ablakaje wooden back.
- The cabinet equally divided into 10 shelves as attached with the same wood type and outside frame thickness. The shelf spaces are equal
- The front edges of cabinet should be coated by beech wood zan cant thickness not less than 1 cm, including the shelves, dividers and shutters.
- The back fixing by Rakoll glue or equivalent and pins not less than 30 pins.
- Combines the rudder of the cabinet by metal hinges excellent quality such as Hettish or its equivalent number:2,
- Install metal knob and locker double closed of the cabinet of excellent type so that at least the weight of the knob about 35 gm, silver color, measurement card 10x5 cm. (provide a sample of locker and hands).
- 4 plastic legs are to be installed, height 10 cm, (provide a sample).
- Should emery and soften all parts of wood including stands, ceiling, and cabinet back from inside.
- Paint all wood’s surfaces (as required color) properly with glossy varnish layer.
- Painting, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.
- The surface should be wraps by gelatin or nylon to save the tables during transport and storage.

SPECIFICATIONS

Item 6-3 Laboratory locker

A. General

B. Technical Specifications

Cabinet for Laboratory with drawers
Width: 90 cm, Depth: 43 cm, Height: 193 cm

1. Table should be made of sandwich wood of 17 mm thickness covered with zan, no connecting part of wood to be used
2. All parts of the cabinet should be welded with strong metal angels based on specifications.
3. The back of the cabinet should be covered with ablakaj wood, first class with 4 mm thickness.
4. The back should be fixed with glue and 30 screws.
5. Front angles should be covered with zan wood of not less than 1 cm thickness, including shelves, dividers, and angles of doors.

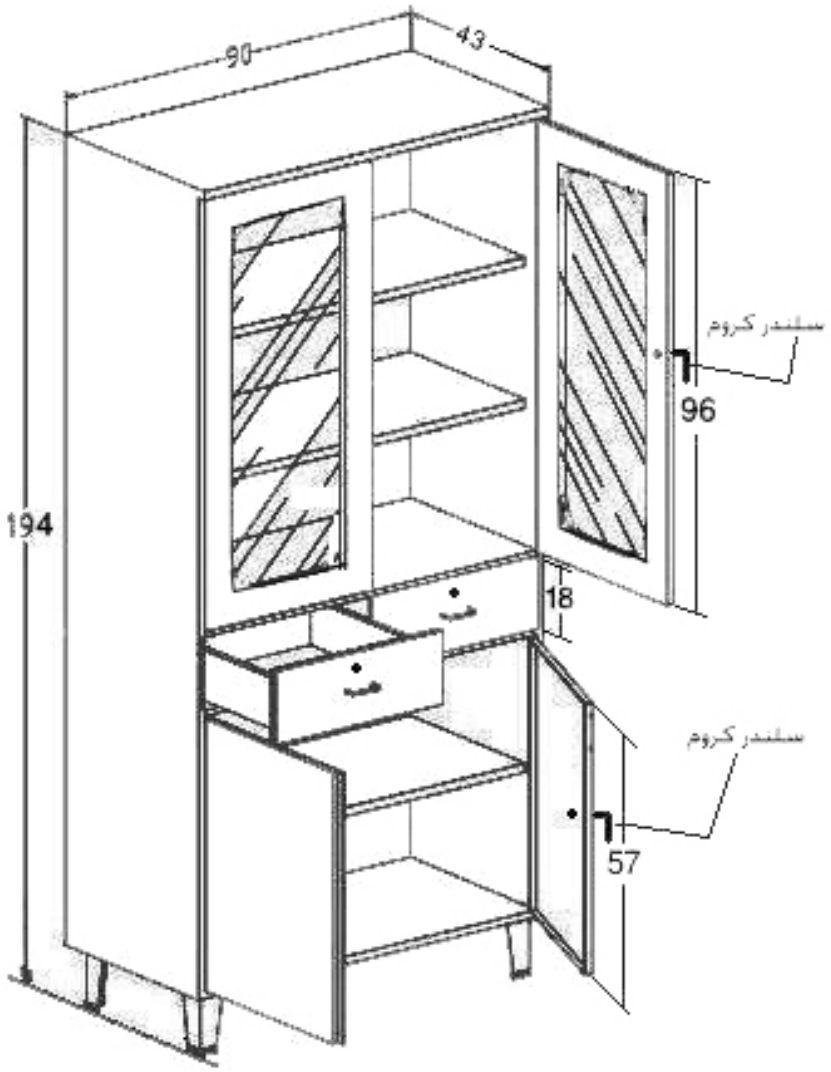
Inside divisions:
The cabinet should be divided into 3 parts:

1. The upper part which consists two doors. Glass cover should be installed with thickness of 4 mm, (no connecting wood). Zan frame should be installed around the glass.

• The whole metal framework shall be made of metal sheets, thickness: 0.8 mm including the back and internal shelves of the cabinet.

The second part consists 2 drawers moving on metal tracks.
The third part is the two doors
The doors should be welded with the cabinet using hinges of first class, 2 for each door.
Stainless handles of 9.5 cm width should be installed by 6 screws, soft pin, 3.8X25 mm and 4 first class lockers.
2 moving shelves of the same wood and of 38 cm width should be installed.
Wood should be softened and prepared for painting from in and outside.
All sides of wood should be painted as requested, a layer of varnish should be used.
Painting of iron, assembly, delivery and storage must be carried out away from climatic influence i.e. sun, dust etc.
4 Plastic (ball) legs should be installed under the cabinet with screws.
Dimensions: Length= 193cm.
Width= 90cm
Depth= 40cm

Item Lab Locker



SPECIFICATIONS

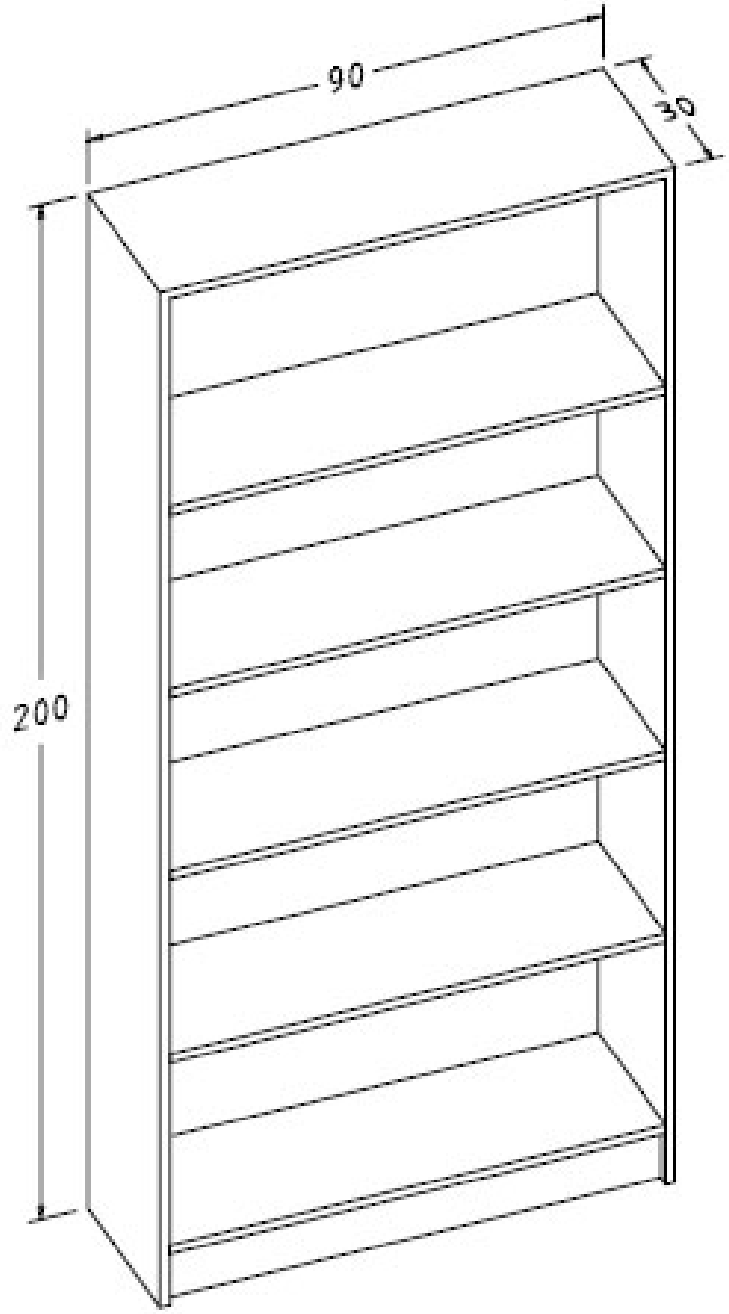
Item 6-4 Bookshelf

A. General

B. Technical Specifications

The bookshelves shall be made of plywood (sandwich board) with a minimum thickness of 17 mm, best quality.
The back shall be covered with a plate made of mezonite wood 5 mm thick, color: white.
The shelves shall be fixed using glue and 4 cm long pins.
Distance between shelves shall be equal.
The wooden parts shall be covered with stretched laminating plastic sheet (Formica) 0.8 mm thick, best quality. Color gray (3130).
All edges of should be cover by hardened plastic belt thickness (1.5-2mm) color: black.
The back shall be fixed using metal screws 1.5 cm long.
Plastic heels are to be installed under the legs to elevate the wooden parts from the ground.
Dimensions: Length; 200 cm, Width; 90 cm, Depth 30 cm.

Item Bookshelf



SPECIFICATIONS

Item 6-5 Wooden Cabinet with Glass doors

A. General
For administration rooms

B. Technical Specifications

Wooden Cabinet with Glass doors, length without legs 180, width 120, depth 40 cm

- Made of "sandwich" wood "A" type, thickness: 17 mm as min. surrounding by formica . Not use the connected wood in all desk parts.
- All parts should be gathered by ironed angles width 3.5 cm, and should be balanced.
- Install a vertical partition divide the cabinet into 2 equal parts.
- The back should be installed by Ablakaj wood, good quality, and without any knots, thickness 4 mm.
- The back fixing by Rakoll glue or equivalent and pins not less than 30 pins.
- The edges of cabinet should be coated by zan cant thickness not less than 1 cm, including the shelves, dividers and shutters from inside and outside.
- Install unstable shelves number 3 for each part from the same wood.
- Install 2 shutters for the cabinet from the same wood by Hettish knobs or equivalent, fixed by glass from inside 4mm.
- Should emery and soften the wood and prepare it for paint internal
- Install metal knobss of excellent type so that at least the weight of the knob about 35 gm. grey color. Locker should be installed, double closes, and good quality (provide a sample).
- Install Negel legs, dark red color, height 10 cm.

(The ministry should be consulted regarding the sample)

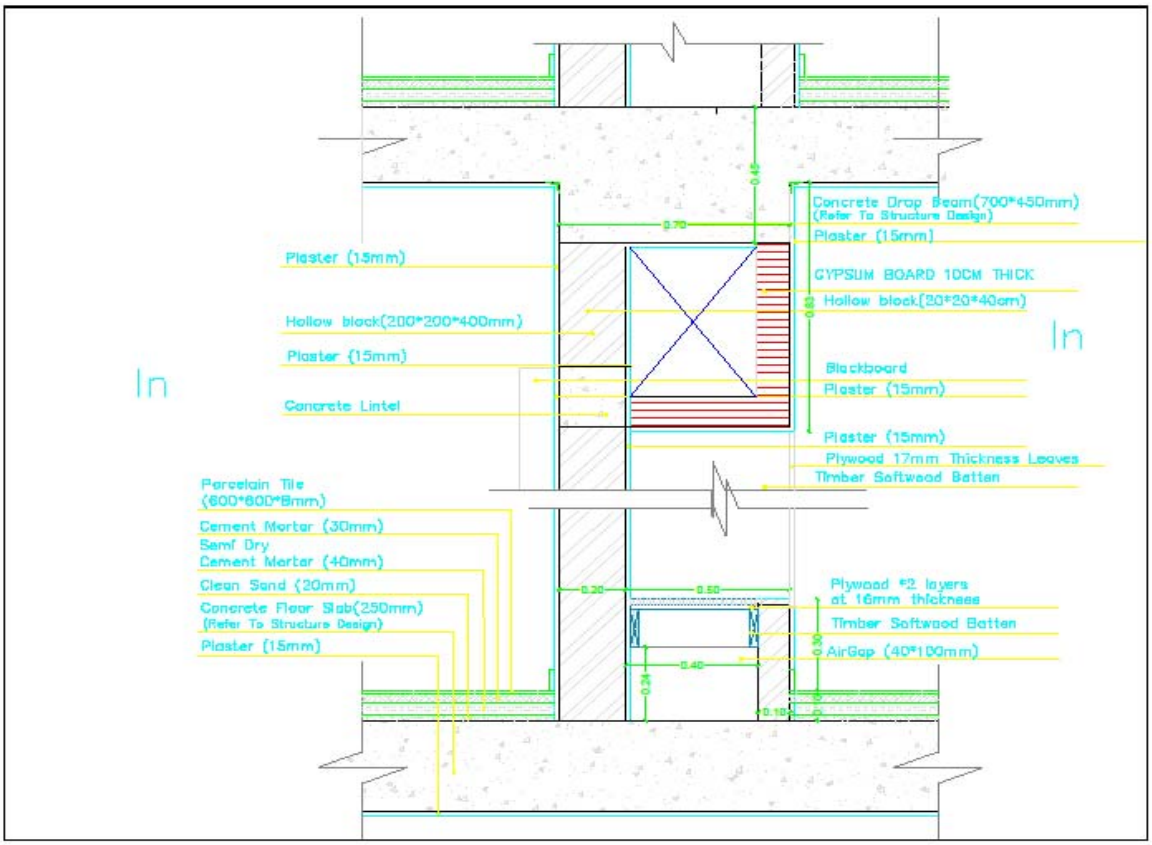
SPECIFICATIONS

Item 6-6 Built in Wooden Cabinet

A. General
For classroom in Al Motanby school

B. Technical Specifications

Supply and install classroom wooden cupboard 125x250 cm from plywood 17mm covered with beach veneer and rounded edges strip 20*17mm thickness natural hard wood zan, the work include lockable doors from the same materials, high quality European made switches, hinges and all accessories needed with soft surface , apply two coats of sanding sealer, one coat of lacquer paint. sand lightly and apply two coats of varnish, drill and fix to concrete or block walls using expansion steel bolts as per drawings detail
Measurement : will be for the external dimension of the cupboard.



SPECIFICATIONS

Item 7-1 EXAMINATION COUCH

Item: Examination Couch (First Aid Room)

A. Technical Specifications

1. Chromium-plated rectangular steel tube frame
2. 3-section mattress
3. Head section adjustable up to +40°
4. Leg section up to +28°
5. Dimension : 1950 × 650 × 650h mm approx.
6. Paper roll holder is include
7. Paper roll 500 mm wide is included
8. Complete with all accessories and consumables needed to work completely as specified

SPECIFICATIONS

Item 7-2	**EXAMINATION COUCH**

Item: Examination Couch (Social Worker Room)

A. Technical Specifications

80سم عرض،سم190 طول، مصنوع من الخيزران الطبيعي، الارتفاع من أعلى 63سم ومن الوسط 42سم ومن الأسفل 32سم، فرشة إسفنج ضغط عالي 5سم (ازرق) إضافة إلى اكريلانت 1سم، كسوة من القماش السيتان، اللون حسب العينات، سحاب من أسفل، مخدات عدد اثنين بمقاس 40*90 اسفنج ضغط منخفض 40% وطبقة مقاس 1 سم سم من الاكريلانت مكسوة من نفس القماش سحاب من أسفل.

يجب تقديم عينة للاعتماد

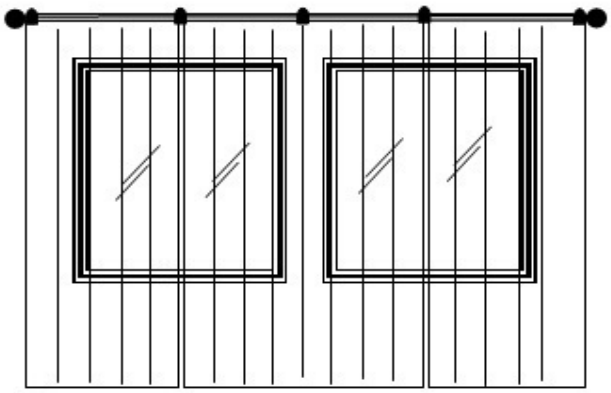
SPECIFICATIONS

Item 8-1 CAURTEN FABRIC

Provide a sample for approval.
- The quantity used is a linear meter
- Including thin metal pipe (as requested color) and copper rings attached to the fabric(6rings/m).
- The type of fabric is dark black out and the color upon requested.
- Each meter use up 2 meters of fabric.
- The curtains elevate from the ground 7 cm.
- The width of curtain exceed of the both sides and upper of window 20 cm.
- The pipe can be closed from both sides.
- In case if the fallen belt not exist, the curtain shall be fixed under the belt.
- In case if the wall's circulation not exist, the pipe should be rolled up to fit with the wall.
- Shall put enough and suitable stands to the pipe in the edge and middle including all needed accessory
- (Provide a sample).

Copper handle of good quality should be installed with a rope for curtains, provide a sample. Fabric guaranteed for 5 years against color change in sun or cloth falling apart.

ستارة شباك قماش



SPECIFICATIONS

Item 8-2 **CAURTEN FABRIC WITH VERTICAL SEGMENT**

Curtains with vertical segment fabrics:

• These vertical curtains are made with strong sheets of fabric with top quality and free from artificial defects.
• The curtains color won't be affected with the sun heat.
• The strip is 12.7 cm wide.
• The strips stick to each other at closing with at least 1 cm distance from both sides.
• The strips are attached vertically by pendants that move through a heavy aluminum rod of 450gm/m weight. The strips are hanged by upper rattles through folds that are glued by thermal welding non-demountable, not with silicon
• The strips are kept vertically by a plastic weight attached to the ends of the folded strips similar to the upper ones. The attached body should weigh 40 gm of plastic resistant to breaking.
• The strips are attached below by plastic chains (unbreakable) connected along the moving part, installed in small circular rings at the end of the weight. To keep the distance between the strips and prevent interference when opening and closing.
• The strips move by trlen cordon to move the strips of the vertical level. It has a plastic weight at the end and plastic chains along the vertical axis

Color is based on demand, it's important to provide a sample of the curtains with measurements of : 100W X 80H

SPECIFICATIONS

Item 8-3 Sun Strip Curtains

Curtains with vertical segment fabrics:

Supply and install aluminum and Turkish fiber curtains (Type Sun Strip Blinds or Zebra Blinds or equivalent), the price includes the upper rail 4cm Dia. of hot galvanized steel hidden inside aluminum rectangular section box 9*3.5cm, lower part of 1.2cm Dia. hot galvanized circular section and any required accessories and materials to complete the job as per specifications and engineer instructions.
The fiber should be cut with laser machine.

SPECIFICATIONS

Item 8-4	First Aid Curtain

الشروط والمواصفات المطلوبة في تنفيذ ستارة بارافان للكشف الطبي
تصنع حسب الشروط التالية :
1. تصنع من 3 قطع قياس 195×50 سم
2. تصنع من مواسير حديد مطلي كروم قطر 32 ملم سماكة 1.25 ملم
3. تصنع العوارض الأفقية من مواسير حديد مطلي كروم قطر 22 ملم وسماكة 1.25 ملم
4. يركب للقطعة الوسطى 4 أرجل كما في الرسم
5. توصل القطع بواسطة مفصلات مناسبة نوعية ممتازة (يجب تقديم عينة)
بشرط اتزان الستارة وإمكانية طوي القطع الطرفية على القطعة الوسطى
6. تركب في طرفي الستارة عجلات معدنية مناسبة نخب أول عدد 2 (يجب تقديم عينة)
7. يركب قماش أبيض (ماكينتوش) قابل للفك لكل قطعة قياس 150 سم × 75 سم (بعرض 1.5سم
قماش لكل 1سم حديد) (يجب تقديم عينة)

ارتفاع الستارة = 195 سم
عرض الستارة = 150 سم

SPECIFICATIONS

Item 8-5	Carpet/Moket

Carpet/Moket:
Turkish carpet of 4m width. The height of the fabric is not less than 7 mm. Weight should not be less than 800gm\m. A sample of 30X30 with color catalog should be provided.