Registration No.: .....

BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of Carpenter Skills

1st Semester, 2nd In-Sem. Examination

B. Voc. Program, Summer Semester (2018-19)

Course Code: SCS1103 **Time: 1 Hour**

Course Name: Standard Machines **Max. Marks: 20**

Instructions:

1.Answers all questions from section A, each question carries one mark.

2. Answers all questions from section B, each question carries two marks.

3. Answers all questions from section B, each question carries ~~two~~ three marks.

Section – A

05X01 = 05 Marks

Q.1.Which one of the following saw blades is used in Panel Saw?

(a) Main Saw & Scoring Saw (b) Main Saw

(c) Scoring Saw (d) None

Q.2.Which one of the following saw blades used for cutting Hard materials (Acrylic, HPL, Laminates)?

(a) Universal (b) Solid wood cross cuts

(c) Razor cut (d) Both A & B

Q.3. Which one of the following units is the diameter of Main Saw blade used in Panel Saw?

(a) 500-1000 mm (b) 300-500 mm

(c) 250-400 mm (d) None

Q.4.Which one of the following is the distance between Riving Knife and Main Saw in Panel Saw?

(a) 8 mm (b) 10 mm

(c) 15 mm (d) 5 mm

Q.5.Which one of the following machines is used for angular cuts?

(a) Panel Saw (b) Surface Planer

(c) Thicknesser (d) All three

Section – B

03X02 = 06 Marks

Q.6. What are the functions of Riving knife used in Panel Saw?

Q.7. Name two things to check before using the Surface Planer.

Q.8. Name four safety precautions, an operator should keep in mind while working on the Panel saw.

Section – C

03X03 = 09 Marks

Q.9.Describe any four types of saw blades used in Panel Saw.

Q.10.Draw a labelled diagram of Surface Planer Machine.

Q.11.What are the steps for changing the saw blade of Panel Saw?

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School of Carpenter Skills

1st Semester, 2nd In-Sem. Examination

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3. Answers all questions from section B, each question carries two marks.

Section – A

05X01 = 05 Marks

Q.1.Which one of the following saw blade is used in Panel Saw?

(A) Main Saw & Scoring Saw (B) Main Saw

(C) Scoring Saw (D) None (A)

Q.2.Which one of the following saw blade do we use for cutting Hard materials (Acrylic, HPL, Laminates)?

(A) Universal (B) Solid wood cross cuts

(C) Razor cut (D) Both A & B (C)

Q.3. Which one of the following is the diameter of Main Saw blade used in Panel Saw?

(A) 500-1000 (B) 300-500

(C) 250-400 (D) None (C)

Q.4.Which one of the following is the distance between Riving Knife and Main Saw in Panel Saw?

(A) 8 mm (B) 10 mm

(C) 15 mm (D) 5mm (D)

Q.5.Which one of the following machine is used for angular cuts?

(A) Panel Saw (B) Surface Planer

(C) Thicknesser (D) All three (A)

Section – B

03X02 = 06 Marks

Q.6. What are the functions of Riving knife used in Panel Saw?

ANS: - Functions of Riving Knife

1.Avoids the kick-back as a result of jamming in the cutting line.

2.It also prevents contact with the rising gear rim.

3.It decreases the tension in the wood while cutting.

Q.7. Name two things to check before using the Surface Planer?

ANS: - Things check before using the surface planer are: -

1. Check 90 between machine table and Fence with the help of Try square.

2. Check that the dust collector is ON/OFF.

Q.8. Name four safety precautions an operator should follow while working on the Panel saw?

ANS: - Safety Precautions while working on Panel Saw

1. Always wear tight-fitting working clothes and do not wear rings, bracelets or watches.

2. When working at the machine, always stand to the side of the saw blade outside a possible kick-back area. Always see that nobody is standing behind the panel saw while cutting.

3. Always use safety hood while cutting.

4.Adjust the height of the top safety hood to the thickness of the work piece to cut. When operating with a tilted saw blade, exchange the narrow hood for a wide hood

Section – C

03X03 = 09 Marks

Q.9.Describe any four types of saw blades used in Panel Saw.

ANS: Four types of blades used in panel saw are: -

1.Universal blade: - This blade is used for cutting both solid wood and panels. This blade has 48 tooth.

2.Solidwood cross cut: - This blade is used for cutting solid wood cross cuts. This blade has 96 tooth.

3.Solidwood along grains: - This blade is used for cutting solid wood along grains with chip thickness limitation. This blade has 28 tooth.

4, Razor cut: - This blade is used for cutting hard materials such as acrylic, HPL, Laminates. This blade is not used for solid wood. This blade has 72 tooth.

Q.10.Draw the labelled diagram of Surface Planer Machine.

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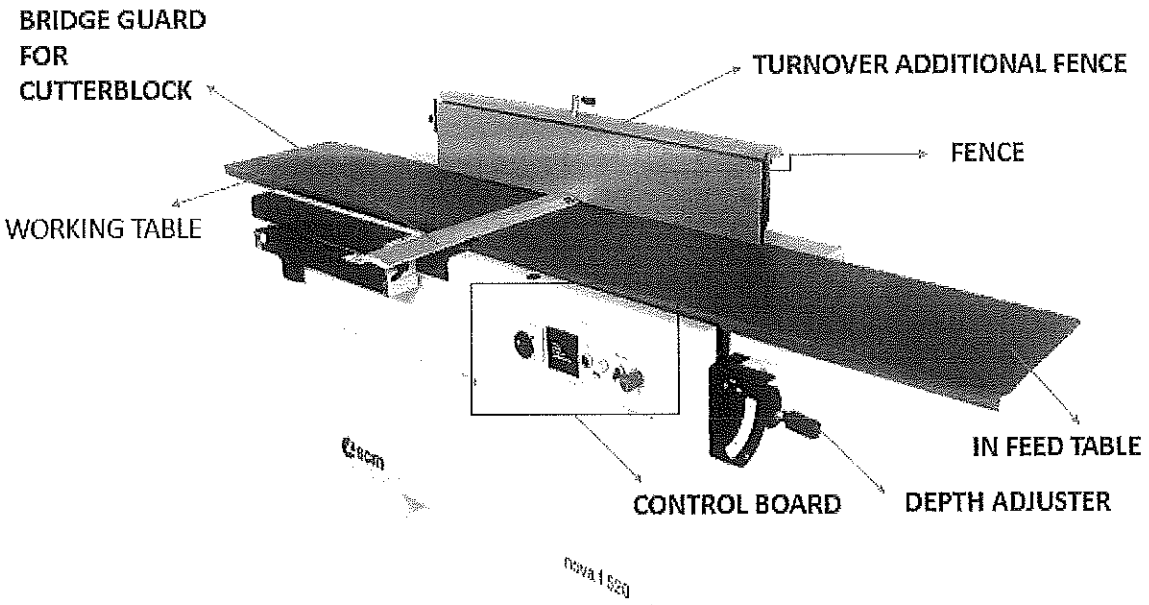
Surface Planer Labelled Diagram



Q.11.What are the steps for changing the saw blade of Panel Saw?

ANS: - Steps for changing Saw blade: -

1. Switch off the machine.
2. Set the saw blade to the upper height setting and tilt at o degree.
3. Remove the safety hood.
4. Place the sliding table at upper limit.
5. Open the guard and insert locking pin through table plate and saw shaft.
6. Unscrew the nut with ring spanner in clock wise direction.
7. Place the saw blade on the saw drive shaft and screw it by hand.
8. At last tight the nut by ring spanner.

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BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of Carpenter School Skill

I Semester,2nd In-Sem. Examination

B. Voc. Program, Summer Semester (2018-19)

Course Code: SCS1104 **Time: 1 Hour**

Course Name: Assembly **Max. Marks: 20**

Instruction:

- All questions from section A, each question carries one mark.
- All questions from section A, each question carries two mark.
- All questions from section A, each question carries three mark.

Section – A

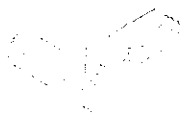
05X01 = 05 Marks

Q 1. Which one of the following is a permanent assembly?

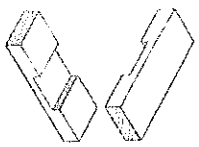
(a) Lamello joint (b) fastening screw (c) clamex (d) knock down fitting

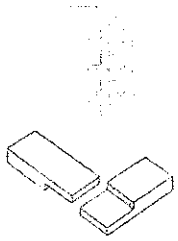
Q 2. Which one of the following is a "half lapped joint"?

(a) (b)



(c) (d)





Q 3. Which one of the following signs is helpful for assembly?

(a) zig zag line (b) triangle (c) wave line (d) cross

Q 4. Which one of the following lamello biscuits can be used on 8 mm MDF board?

(a) 20 (b) 10 (c) 0 (zero) (d) 40

Q 5. Which one of the following machines is used for Domino dowel 5*30?

(a) classic x (b) zeta P2 (c) Domino (d) circular saw

Section – B

03X02 = 06 Marks

Q 6. Explain the significance of triangle sign with an example.

Q 7. What is Dry gluing process? Why do we use this process before gluing?

Q 8. Explain the gluing process by using Domino joints in carpenter assembly.

Section – C

03X03 = 09 Marks

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Q 9. Explain four types of joints used in assembly.

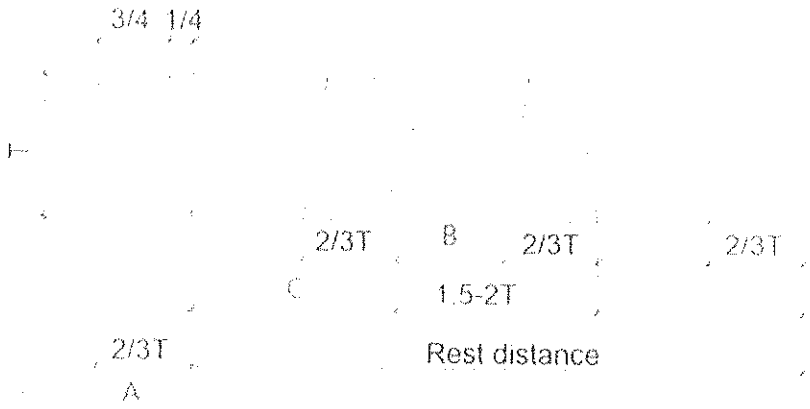
Q 10. Explain four types of joinery methods used for assembly.

Q 11. Find out the following measurements of the Dovetail where length of board is 200mm, width is 150mm and thickness is 15mm.

(a) Dimension of first distance (A)

(b) No. of teeth (B)

(c) Equal distance (C)



BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of carpenter school

I Semester, 2nd In-Sem. Examination

B. Voc. Program, Summer Semester (2018-19)

Course Code: SCS1104 **Time: 1 hours**

Course Name: Assembly **Max. Marks:20**

Instruction:

- All questions from section A, each question carries one mark.
- All questions from section A, each question carries two mark.
- All questions from section A, each question carries three mark.

Section – A

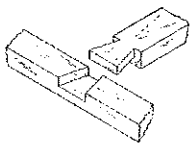
05X01 = 05 Marks

Q 1. Which one of the following is permanent assembly?

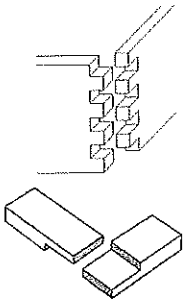
A1 Lamello joint (B) fastening screw (C) clamex (D) knock down fitting (A)

Q 2. Which one of the following is "half lapped joint"?

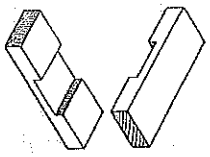
(A)



(B)



(C)



(D) (D)

Q 3. Which one of the following signs is helpful for assembling? (B)

(A) zig zag line (B) triangle (C) wave line (D) cross

Q 4. Which one of the following lamello biscuits can be use on 8 mm MDF board? (C)

(A) 20 (B) 10 (C) 0 (zero) (D) 40

Q 5. Which one of the following machine we use for Domino 5*30? (C)

(A) classic x (B) zeta P2 (C) Domino (D) circular saw

Section – B

3 × 2 = 06 Marks

Q 6. Explain the significance of tringle sign with an example.

Ans. Tringle sign is used for assembly purpose. We used this sign as an identification of the part. This tringle making process follows some following points:

1. We always make tringle according to front view of the drawing.
2. If it is not possible to make tringle sign on all parts in front view than only we go for top or side view.

3. This is not necessary to complete the tringle sign always. (in case of less no. of component)
4. Tringle sign should always come on the corners of work piece.

Q 7. What is dry gluing process? Why do we use this process before gluing?

Ans. process in which we follow whole gluing process without using glue in it is called dry gluing process.

We used this process for following purpose.

1. To check errors in the assembly.
2. To check the positioning of the pieces.
3. To check all availability.

Q 8. Explain the gluing process by using Domino joint in carpenter assembly.

Ans. Gluing process by using domino in assembly, after making groove in all pieces first we will glue all the domino on the thickness side of the pieces and then we glued all the side pieces on the bottom of the box and will clamp it for 30 to 4 minutes. During the clamping we will use some waste pieces between final piece and clamp which will prevent final piece to damages and also remove all the extra glue from inside of the box with wet cotton.

Section – C

3 × 3 = 09 Marks

Q 9. Explain four different types of joints used in carpentry.

Ans. 1. Bridle joint: This joint is also called Tenon joint. This joint is where the through mortise is open on one side and forms a fork shapes.

2. Miter joint: This joint is similar to butt joint, but both pieces have been beveled (usually at a 45-degree angle)

3. Dovetail joint: A form of box joint where the finger is locked together by diagonal cuts.

4. Housing joint: A slot Is cut across the grain in one piece for another piece to cut in to.

Q 10. Describe four different types of joinery methods.

Ans. 1. Gluing: In the gluing process by using lamello in assembly, after making groove in all pieces first we will glue all the biscuits on the thickness side of the pieces and then we glued all the side pieces on the bottom of the box and will clamp it for 3 to 4 hours.

2. Nailing: In the nailing process we can nail parts together by using different nails.

3. biscuit joinery: In biscuit joinery system we can joint two parts together by using lamella biscuit joints.

4. Domino joinery system: In the domino joinery system we can joint to parts together by using domino joints.

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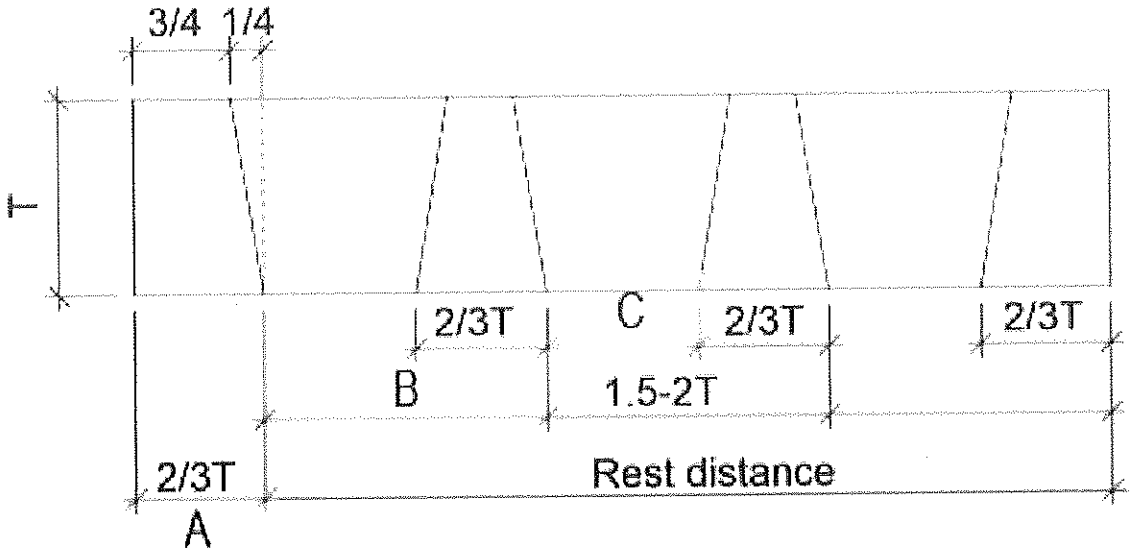
Q 11. Find out the measurements of the dovetail where length of board is 200mm, width is 150mm thickness is 15mm. find out following.

(A) Dimension of first distance

(B) No. of teeth

(C) Equal distance



Ans. A. Length = 200mm width = 150mm thickness = 15mm

(A) Dimension of first distance = 2T/3

= 2*15/3

= 10mm

(B) Number of teeth = rest distance/2*T

=140/2*15

=4.66

Approx. = 5

Rest distance = total width – first distance

= 150 – 10

= 140mm

(C) equal distance = rest distance / number of teeth

= 140/5

=28mm

Registration No.: .....

BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of Carpenter Skills

1st Semester, II In-Sem. Examination

B. Voc. Program, Summer Semester (2018-19)

Course Code: SCS1105 **Time: 1 Hour**

Course Name: Carpenter Materials **Max. Marks: 20**

Instructions:

1. Answer all questions from section A, each question carries one mark.
2. Answer all question from section B, each question carries two marks.
3. Answer all question from section C, each question carries three marks.

Section – A

05X01 = 05 Marks

Q.1.Which one of the followings is an example of fiber board?

(a) Particle board (b) Oriented Strand Board

(c) MDF (d) Ply board

Q.2. Which one of the followings is a Slenderness ratio in wood panel?

(a) Length/Area (b) Area/Thickness

(c) Length/Thickness (d)Thickness/Length

Q.3. Which one of the followings is not a standard size of wood panel?

(a) 4*8 feet (b) 6*8 feet

(c) 5*6 feet (d) 4*7 feet

Q.4. Which one of the following raw materials is used for MDF?

(a)Fiber (b) Wooden strips

(c) Particles (d) Ply

Q.5. Which one of the following is not a type of wood panel?

(a) Particle board (b) Ply board

(c) MDF (d) Solid wood board

Section – B

03X02 = 06 Marks

Q.6. Explain the importance of Slenderness ratio in wood panels.

Q.7. Discuss Ply board based wood panel with its advantages.

Q.8. Explain the qualities of a good wood panel.

Section – C

03X03 = 09 Marks

Q. 9. Differentiate between Particle board and MDF board.

Q.10. Explain the importance of Wood based panels; discuss any two types of wood panels.

Q.11. What do you mean by Oriented Strand Board, explain raw material used for OSB board?

School of Carpenter Skills

1st Semester, II In-Sem. Examination

B. Voc. Program, Summer Semester (2018-19)

Course Code: SCS1105 **Time: 1 Hour**

Course Name: Carpenter Materials **Max. Marks: 20**

Instructions:

1. Answer all questions from section A, each question carries one mark.
2. Answer all question from section B, each question carries two marks.
3. Answer all question from section C, each question carries three marks.

Section – A

05X01 = 05 Marks

Q.1.Which one of the followings is an example of fiber board?

(a) Particle board (b) Oriented Strand Board

(c) MDF (d) Plyboard c

Q.2. Which one of the followings is a Slenderness ratio in wood panel?

(a) Length/Area (b) Area/Thickness

(c) Length/Thickness (d)Thickness/Length c

Q.3. Which one of the followings is not a standard size of wood panel?

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(c) 5*6 feet (d) 4*7 feet d

Q.4. Which one of the followings raw material is used for MDF?

(a)Fiber (b) Wooden strips

(c) Particles (d) Ply a

Q.5. Which one of the following is not a type of wood panels?

(a) Particle board (b) Plyboard

(c) MDF (d) Solid wood board d

Section – B

03X02 = 06 Marks

Q.6. Explain the importance of Slenderness ratio in wood panels.

This is used to confirm the size fiber or particles used in panels. It is calculated as Length/Thickness of particle. This is important to create panels with good physical and mechanical properties. Density and strength depends on slenderness ratio of fiber used in panels.

Q.7. Discuss Plyboard based wood panel with its advantages.

Plywood is also an engineered wood product that is made by pressing and binding sheets of wood veneer together into one solid piece. Plywood is an engineered wood product made up of sheets of wood veneer. The wood veneer boards are pressed and bonded together to create one solid piece. This manufacturing process is called cross-graining and it reduces shrinkage and expansion while improving panel strength consistency. Different grades of plywood are used for different purposes. Plywood grades are affected by many variables including the type of wood ply, thickness, adhesive, and manufacturing/compaction process. Lower grades are perfect for subflooring in buildings and homes. High grades can be used for cabinets and shelving. There are many types of plywood to choose from. Make sure to choose the correct plywood type for the furniture or fixture you are building.

Advantages of plywood

o Because it consists of layers of wood veneer with the grain on each layer running a different direction, it's a very strong building material.

o It's less susceptible to water damage than MDF, and won't soak up water and swell as quickly or easily as MDF does.

o It's stainable, which makes it perfect for kitchen cabinets, table tops, and other projects where you want a large stained wood surface.

o It holds screws very tightly since the varying grains of wood on each layer give the screws something to hold onto.

o While most plywood does contain urea-formaldehyde and other VOCs, it is now possible to purchase plywood without formaldehyde.

Q.8. Explain the qualities of a good wood panel.

- Because engineered wood is man-made, it can be designed to meet application-specific performance requirements. Required shapes and dimension do not drive source tree requirements (length or width of the tree)
- Engineered wood products are versatile and available in a wide variety of thicknesses, sizes, grades, and exposure durability classifications, making the products ideal for use in unlimited construction, industrial and home project application.
- Engineered wood products are designed and manufactured to maximize the natural strength and stiffness characteristics of wood. The products are very stable and some offer greater structural strength than typical wood building materials.
- Glued laminated timber has greater strength and stiffness than comparable dimensional lumber and, pound for pound, is stronger than steel.

- Some engineered wood products offer more design options without sacrificing structural requirements
- Engineered wood panels are easy to work with using ordinary tools and basic skills. They can be cut, drilled, routed, jointed, glued, and fastened. Plywood can be bent to form curved surfaces without loss of strength. And large panel size speeds construction by reducing the number of pieces to be handled and installed.
- Engineered wood products make more efficient use of wood. They can be made from small pieces of wood, wood that has defects or underutilized species.
- Wooden trusses are competitive in many roof and floor applications, and their high strength-to-weight ratios permit long spans offering flexibility in floor layouts.
- Engineered wood is felt to offer structural advantages for home construction.
- Sustainable design advocates recommend using engineered wood, which can be produced from relatively small trees, rather than large pieces of solid dimensional lumber, which requires cutting a large tree.

Section – C
03X03 = 09 Marks

Q. 9. Differentiate between Particle board and MDF board.

particle board is a waste-wood product made by heat pressing wood chips, sawmill shavings, or even sawdust and resin together. To make the end product water resistant, fireproof, and/or insect-proof chemicals are used including wax, dyes, wetting agents, and release agents. After the resin, chemicals, and wood scraps have been mixed together, the liquid mixture is made into a sheet. The weight of the wood chips is evenly distributed to make sure the finished board is not top heavy. Compression is applied to the particle board sheet multiple times to create the tightest possible bond between the resin and the wood bits. A popular type of particle board that you may see is oriented strand board (OSB). This wood composite is very important to home and commercial engineers for structural purposes. Oriented strand board is easily identifiable by its manufacturing process that layers strands of wood in specific orientations. Most home and commercial builders use OSB particle board for floor and wall bases.

MDF stands for medium-density fiberboard, which is an engineered wood composite made up of wood fibers. Because the MDF is composed of small wood fibers, there is no visible wood grain, rings, or knots. The making of the composite uses the fibers, glue, and heat to create a tight bonding board. Both softwood and hardwood are used to manufacture MDF. Generally denser than plywood, this composition creates a stronger material for building. We use a veneer

sealant to prevent water damage. Two types of fiberboard are moisture resistant (which is typically blue) and fire retardant.

Q.10. Explain the importance of Wood based panels; discuss any two types of wood panels.

Engineered wood, also called composite wood, man-made wood, or manufactured board, which are manufactured by binding or fixing the strands, particles, fibres, or veneers or boards of wood, together with adhesives, or other methods of fixation to form composite materials. Engineered wood products are used in a variety of applications, from home construction to commercial buildings to industrial products. The products can be used for joists and beams that replace steel in many building projects.

Typically, engineered wood products are made from the same hardwoods and softwoods used to manufacture lumber. Sawmill scraps and other wood waste can be used for engineered wood composed of wood particles or fibers, but whole logs are usually used for veneers, such as plywood, MDF or particle board. Some engineered wood products, like oriented strand board (OSB), can use trees from the poplar family, a common but non-structural species.

particle board is a waste-wood product made by heat pressing wood chips, sawmill shavings, or even sawdust and resin together. To make the end product water resistant, fireproof, and/or insect-proof chemicals are used including wax, dyes, wetting agents, and release agents. After the resin, chemicals, and wood scraps have been mixed together, the liquid mixture is made into a sheet. The weight of the wood chips is evenly distributed to make sure the finished board is not top heavy. Compression is applied to the particle board sheet multiple times to create the tightest possible bond between the resin and the wood bits. A popular type of particle board that you may see is oriented strand board (OSB). This wood composite is very important to home and commercial engineers for structural purposes. Oriented strand board is easily identifiable by its manufacturing process that layers strands of wood in specific orientations. Most home and commercial builders use OSB particle board for floor and wall bases.

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Q.11. what do you mean by Oriented Strand Board, explain raw material used for OSB board?

Oriented strand board (OSB), also known as flakeboard, sterling board is a type of

engineered wood similar to particle board, formed by adding adhesives and then compressing layers of wood strands (flakes) in specific orientations. It was invented by Armin Elmendorf in California in 1963.[1] OSB may have a rough and variegated surface with the individual strips of around 2.5 cm × 15 cm (1.0 by 5.9 inches), lying unevenly across each other and comes in a variety of types and thicknesses.

Oriented strand board is manufactured in wide mats from cross-oriented layers of thin, rectangular wooden strips compressed and bonded together with wax and synthetic resin adhesives (95% wood, 5% wax and resin. The adhesive resins types used include : Urea-formaldehyde (OSB type 1, non-structural, non-waterproof); isocyanate based glue (or PMDI poly-Methylene diphenyl diisocyanate based) in inner regions with Melamine-Urea-formaldehyde or Phenol formaldehyde resin glues at surface (OSB type 2, structural, water resistant on face); Phenol formaldehyde resin throughout (OSB types 3 and 4, structural, for use in damp and outside environments).

The layers are created by shredding the wood into strips, which are sifted and then oriented on a belt or wire cauls. The mat is made in a forming line. Wood strips on the external layers are aligned to the panel's strength axis, while internal layers are perpendicular. The number of layers placed is determined partly by the thickness of the panel but is limited by the equipment installed at the manufacturing site. Individual layers can also vary in thickness to give different finished panel thicknesses (typically, a 15 mm (0.6 in) layer will produce a 15 cm (5.91 in) panel thickness. The mat is placed in a thermal press to compress the flakes and bond them by heat activation and curing of the resin that has been coated on the flakes. Individual panels are then cut from the mats into finished sizes.

Types of OSB

- OSB/0 – No added formaldehyde
- OSB/1 – General purpose boards and boards for interior fitments (including furniture) for use in dry conditions
- OSB/2 – Load-bearing boards for use in dry conditions
- OSB/3 – Load-bearing boards for use in humid conditions
- OSB/4 – Heavy-duty load-bearing boards for use in humid conditions

Registration No.: .....

BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of Carpenter Skills

1st Semester, 1stIn-Sem. Examination

B. Voc. Program, Summer Semester (2018-19)

Course Code: SCS1106 **Time: 1 Hour**

Course Name: Hand Drawing **Max. Marks: 20**

Instructions:

1. Answer all questions from section A, each question carries one mark.
2. Answer all question from section B, each question carries two marks.
3. Answer all question from section C, each question carries three marks.

Section – A

05X01 = 05 Marks

Q.1.Which one of the followings is a type of sectional view?

(a) Cross section (b) Full Section

(c) Mid-Section (d) None of these

Q.2. Which one of the followings is not a part of Rivet?

(a) Head (b) Shank

(c) Neck (d) Tail

Q.3. Which one of the followings is purpose of Sectional view?

(a) Internal structure (b) Outer surface

(c) Projection view (d) External dimension

Q.4. If cutting plane passes through center line of object, then it is the example of

(a) Half Section (b) Full section

(c) Both (d) None of these

Q.5. Which one of the followings is not a type of carpentry drawing view?

(a) First angle view (b) Third angle view

(c) Sectional view (d) Fourth angle view

Section – B

03X02 = 06 Marks

Q.6. Differentiate between Half sectional view and Full sectional view.

Q.7. What do you understand by rivets? Explain it with a neat sketch.

Q.8. Draw a projection of a plane passing through coordinates (2,4), (5,6), (2,8), (5,8).

Section – C

03X03 = 09 Marks

Q9. Describe Half section view used in hand drawing with a suitable diagram.

Q 10. Explain the importance of sectional view in carpentry drawing. How is it different than projection view?

Q 11. Describe Full section view used in hand drawing with a suitable diagram.

School of Carpenter Skills

1st Semester, 1stIn-Sem. Examination

B. Voc. Program, Summer Semester (2018-19)

Course Code: SCS1106 **Time: 1 Hour**

Course Name: Hand Drawing **Max. Marks: 20**

Instructions:

1. Answer all questions from section A, each question carries one mark.
2. Answer all question from section B, each question carries two marks.
3. Answer all question from section C, each question carries three marks.

Section – A

05X01 = 05 Marks

Q.1.Which one of the followings is a type of sectional view?

(a) Cross section (b) Full Section

(c) Mid-Section (d) None of these b

Q.2. Which one of the followings is not a part of Rivet?

(a) Head (b) Shank

(c) Neck (d) Tail c

Q.3. Which one of the followings is purpose of Sectional view.

(a) Internal structure (b) Outer surface

(c) Projection view (d) External dimension a

Q.4. If cutting plane passes through center line of object, then it is the example of

(a) Half Section (b) Full section

(c) Both (d) None of these b

Q.5. Which one of the followings is not a type of carpentry drawing view?

(a) First angle view (b) Third angle view

(c) Sectional view (d) Fourth angle view d

Section – B

03X02 = 06 Marks

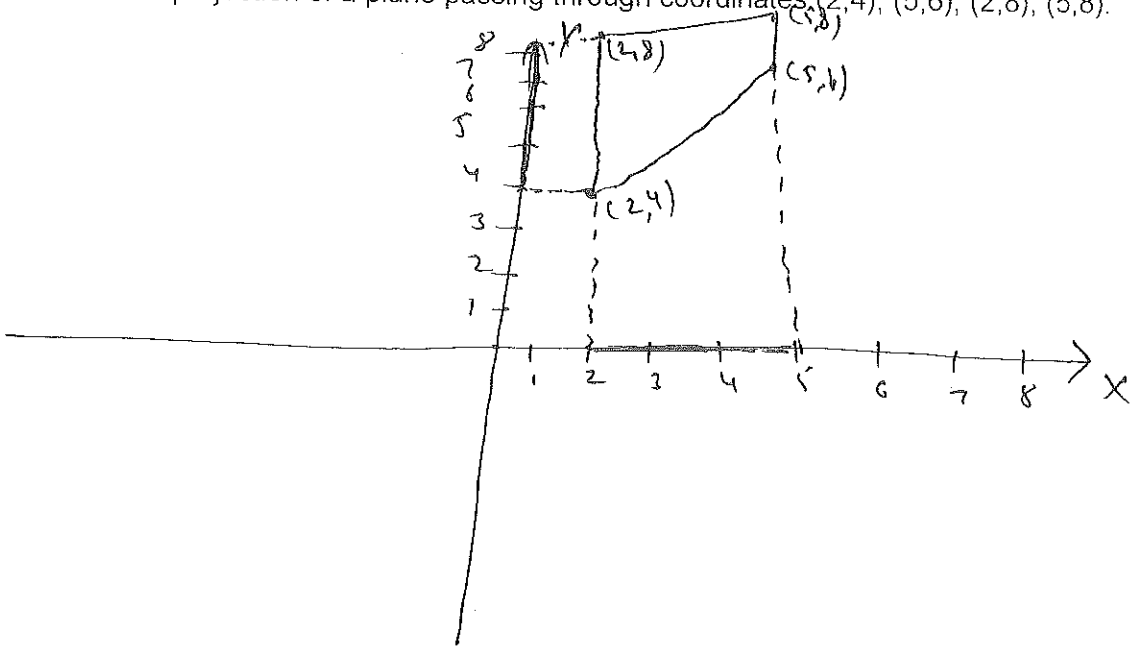
Q.6. Differentiate between Half sectional view and Full sectional view.

full section view is the full section. The half section view is half of the section. It is used when the object is symmetrical in both inside and outside details. One-half of the object is sectioned and the other half is shown as a standard view. sectional view obtained by assuming that the object is completely cut by a plane is called a full section or sectional view. For a half section, the cutting plane removes only one quarter of an object

Q.7. What do you understand by rivets, explain with neat sketch.

Rivets are used to create permanent fastening in wood joints in form of screw with both sided head. It has three parts, head shank and tail. Tail is converted into head by applying compressive force on it. Once the tail is get convert into head its becomes permanent joint and can not be remove further.

Q.8. Draw a projection of a plane passing through coordinates (2,4), (5,6), (2,8), (5,8).

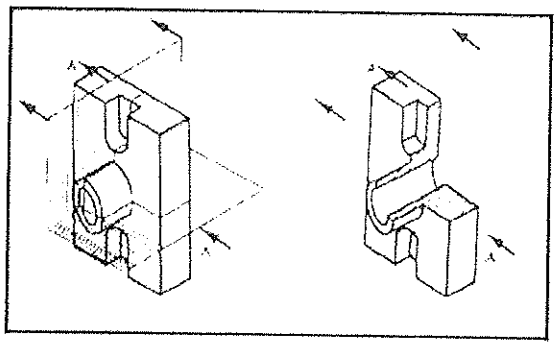


Section – C

03X03 = 09 Marks

Q9. Describe Half section view used in hand drawing with a suitable diagram.

A half-section is a view of an object showing one-half of the view in section, The diagonal lines on the section drawing are used to indicate the area that has been theoretically cut. These lines are called section lining or cross-hatching. The lines are thin and are usually drawn at a 45-degree angle to the major outline of the object.



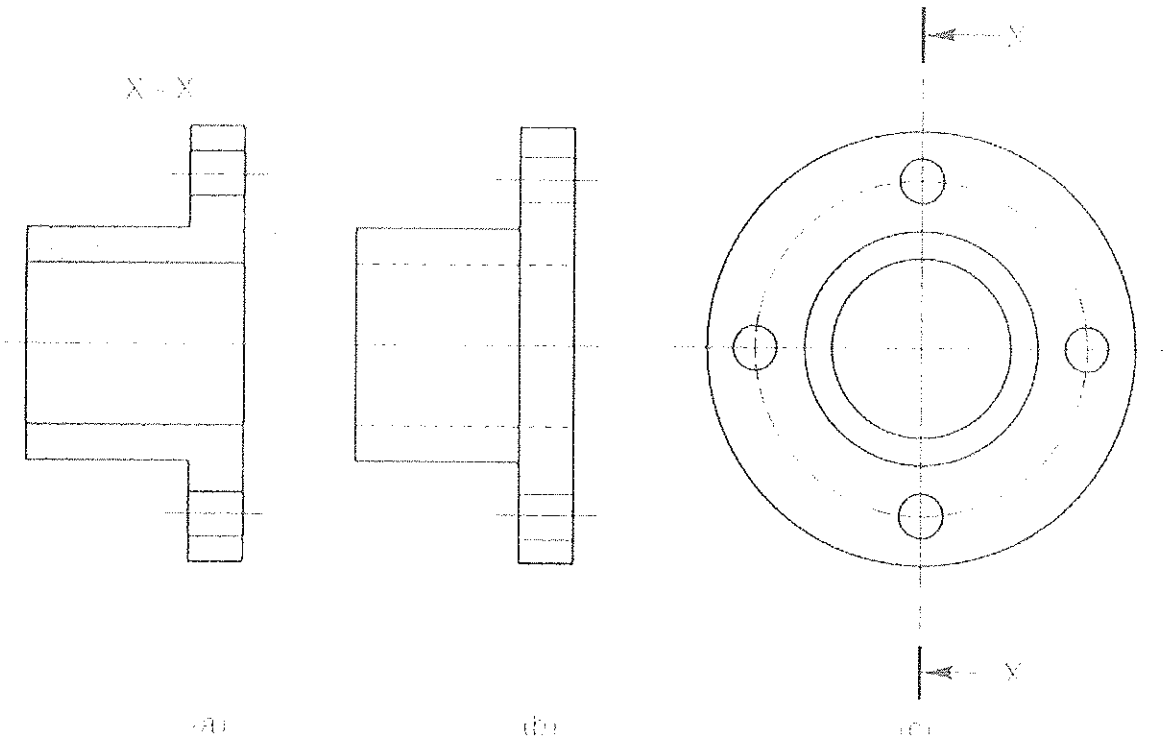
Q 10. Explain the importance of sectional view in carpentry drawing. How is it different than projection view.

Sectioned views are recognized by having close thin black parallel lines called crosshatching or section lining, often at 45 degrees, within the view. The purpose of a sectioned view is to improve the reader's ability to visualize completely the object being drawn. The crosshatching indicates, in a conventional sense, the solid mass of the object in contrast to openings such as holes which are also called voids. Hidden lines in drawings not sectioned also serve the same purpose, but tend to become confusing when the drawing is complex, thus the value of sectioned views. Different crosshatch symbols also identify the type of material used to fabricate the part.

Projection view just gives the information about outer dimensions and shape, while sectional view shows internal structure of product with its variation in inside dimensions.

Q 11. Describe Full section view used in hand drawing with a suitable diagram.

A sectional view obtained by assuming that the object is completely cut by a plane is called a full section or sectional view. The view from the right of the object in full section. The sectioned view provides all the inner details, better than the un sectioned view with dotted lines for inner details. The cutting plane is represented by its trace (V.T) in the view from the front and the direction of sight to obtain the sectional view is represented by the arrows.



Sectioned and un-sectioned views