

September 2021

**MACHINERIES FOR LEATHER GOODS – I**

Time Allowed: 1.5 Hours

Full Marks: 70

**Answer to Question No.1 is compulsory and Answer any two questions from the rest.**

- I. Answer the following questions (any twenty): 20x2
- i. There is only one kind of Stitching machine, which is used for various needs of the industries. (True/False)
  - ii. (a) Edge trimmer, (b) Twin needle flat stitch, (c) Zig-zag, (d) Saddle stitch machine simultaneously performs sewing and cutting of the material end with an edge cutter.
  - iii. The \_\_\_\_\_ is the section intermediate between the shank and the blade in a needle.
  - iv. If the diameter is x mm, the Nm of needle is  $10 \times x$ . (True/False)
  - v. \_\_\_\_\_ is the term leather good factories use for cutting the leather pieces.
  - vi. (a) Clicking arm, (b) Safety handle switches, (c) Cutting board, (d) Digital display provide safety while clicking and stop damage or accidents during process.
  - vii. Potentiometer is used to click different thickness of leathers. (True/False)
  - viii. The other name of loose pulley found in a rotating pulley is known as \_\_\_\_\_.
  - ix. The grinding wheels are to be cleaned time to time with \_\_\_\_\_ fitted within the splitting machine.
  - x. \_\_\_\_\_ provide sufficient light during splitting.
  - xi. \_\_\_\_\_ is done on the bottom component where two components (top and bottom) are to be stitched together by overlapping.
  - xii. \_\_\_\_\_ is used during hand skiving operation with an objective of providing fine base as well as to sharpen the edges of skiving tools.
  - xiii. \_\_\_\_\_ machine have been developed with advance devices which can give different thickness and angle by means of treadle.
  - xiv. The bell knife of the skiving machine is usually taken out from the machine for sharpening operation. (True/False)
  - xv. \_\_\_\_\_ machine is mainly used to cut straps for piping, belts and shoulder bag handles.
  - xvi. In a strap cutting machine, scrap box is used to supply electrical power to the machine. (True/False)
  - xvii. Leather (a) clicking, (b) skiving, (c) stamping, (d) stitching involves the use of shaped implements (stamps) to create an imprint onto a leather surface.
  - xviii. In bulk production, folding can be done with the help of stamping machine (True/False)
  - xix. \_\_\_\_\_ machine uses thermoplastic adhesive to fold the edge -already skived- parts of leather good components, such as shoe upper.

- xx. In a thermo-folding machine, the \_\_\_\_\_ of the glue tank may be set with digital display.
- xxi. Two rollers rotate into the latex so that the adhered latex of the \_\_\_\_\_ roller is transferred to the component to be cemented.
- xxii. The cementing tank of cementing machine is usually filled up with \_\_\_\_\_.
- xxiii. In Perforating machine, perforation is usually done with the help of \_\_\_\_\_.
- xxiv. \_\_\_\_\_ material are used as bed for Perforating machine.
- xxv. Stitching is the craft of fastening or attaching objects using stitches made with a \_\_\_\_\_ and thread.
2. a. Narrate few functions of a Skiving machine.  
b. Describe with suitable diagrams about the various types of skiving operations that are usually performed in a Leather Goods Industry. <https://www.wbscteonline.com> (5+10)
3. What is the main objective of a strap cutting machine? What are the different parts and their functions of a strap cutting machine? Mention a cautionary measure to be followed while using a strap cutting machine. (3+9+3)
4. What is stamping in leather goods manufacturing? Mention the end uses of the components processed out of the stamping machine. What is the fundamental difference between embossing and stamping? (6+6+3)
5. Discuss the features of thermo-folding machine used as a leather good machinery. What are the utilities of thermo-folding machine? (7.5+7.5)
6. a. Name the various types of tools that are associated with hand skiving operations.  
b. Mention the various types of skiving machine that are found to be used in a Leather Goods Industry.  
c. Write short notes on the following features of a skiving machine  
i. Feed Roller ii. Pressure Foot iii. Grinding Device iv. Knife Shaft (2+3+10)
7. a. Why Perforating machines are used in a Leather Goods Industry?  
b. What are the various ways by which perforations are usually performed on a leather component?  
c. Write short notes on Perforation Matrix & Feeder.  
d. Describe briefly, the working procedure of a Cementing machine. (1.5+1.5+6+6)
8. Mention the advantages and disadvantages of compound material transportation system of a stitching machine. Write a short note on cylinder bed stitching machine and its features. (7.5+7.5)
9. Define needle. Discuss the different parts of a needle with a supporting labelled illustration. (5+10)
10. Compare the features of mechanical and hydraulic clicking press used in leather goods manufacturing. What are the steps of operations of a hydraulic clicking press? (7.5+7.5)
11. a. What is Splitting? How does it differ from Skiving?  
b. Name the machine used for this operation.  
c. Describe in brief about the four features of a splitting machine.  
d. Mention some safety precautionary measures that need to be taken for smooth performance of the aforesaid machine. (3+2+7+3)