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Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2022/2023**

- COURSE NAME : FURNITURE FINISHING AND PACKAGING
- COURSE CODE : BPP 31003
- PROGRAMME CODE : BPP
- EXAMINATION DATE : JULY / AUGUST 2023
- DURATION : 3 HOURS
- INSTRUCTIONS :
1. ANSWER ALL QUESTIONS.
 2. THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK**.
 3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK.

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

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- Q1** (a) Ahmad is an owner of a workshop at Pagoh Jaya, Pagoh, Johor and his workshop has almost complete tools and machines for wooden furniture manufacturing. He needs to fabricate ten units of dining chairs made from 100% rubberwood with complex shapes and difficult accessible sides of arm rest.
- (i) Sketch an example of the dining chair arm rest. (3 marks)
 - (ii) Propose **ONE (1)** contact method for the finishing of rubberwood dining chair with justification. (6 marks)
 - (iii) Choose **TWO (2)** finishing materials suitable for contact method as in **Q1(ii)**. (4 marks)
- (b) You have been appointed as an Assistant Supervisor in a new section namely finishing line at NHR Furniture Sdn. Bhd., Batu Pahat, Johor. The building has an issue on floor loading, but you need to assist in the development of a spray booth at the finishing area.
- (i) Explain **TWO (2)** benefits of using spray booth. (4 marks)
 - (ii) Illustrate **ONE (1)** type of spray booth with minimal costing operation with justification. (6 marks)
 - (iii) Differentiate the usage of dry type of spray booth. (4 marks)
- Q2** You are a Production Supervisor at XYZ Furniture Sdn. Bhd., Negeri Sembilan. Recently, you have been appointed as a decision maker for product finishing. The company decided to launch a brand new dining table using Acacia slab as a table top.
- (a) Illustrate the structure of sand paper with labels used for wooden Acacia table top. (4 marks)
 - (b) Explain **TWO (2)** abrasive grains used for wooden Acacia table top. (4 marks)
 - (c) Suggest **ONE (1)** sanding machine for massive production of wooden Acacia table top with justification. (6 marks)

- (d) Choose **ONE (1)** finishing material to enhance the wood grain of Acacia wood. (3 marks)
- (e) Determine **ONE (1)** finishing for fabrication of modern Acacia slab river dining table. (6 marks)

- Q3** (a) Explain **TWO (2)** importances of coating evaluation. (4 marks)
- (b) Describe **FOUR (4)** basic characteristics of uncured coatings. (8 marks)
- (c) Explain **THREE (3)** tests to determine the cured coating of wood finishes. (9 marks)
- (d) As an internship student at Xie Xie Furniture Sdn. Bhd., Muar, Johor you are required to observe the finishing task for a dining chair. The supervisor ask you to suggest the causes and solutions of poor coverage that frequently occurred after the finishing process.

Determine **TWO (2)** causes and solutions for this defect. (6 marks)

- Q4** (a) State **THREE (3)** layers of packaging design using Adobe illustrator. (3 marks)
- (b) Discuss **THREE (3)** mechanical strength tests for paperboard used in packaging. (6 marks)
- (c) A rattan arm chair as in **Figure Q4** will be exported to Europe by sea transportation mode.



Figure Q4: Rattan Arm Chair

- (i) Illustrate the packaging design for the rattan arm chair as shown in **Figure Q4**.
(8 marks)
- (ii) Determine the best packaging materials for the rattan arm chair with explanation.
(6 marks)

- END OF QUESTIONS -

4
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