



UTHM

Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2018/2019**

COURSE NAME : ALTERNATIVE MATERIAL
TECHNOLOGY

COURSE CODE : BPP 30603

PROGRAMME CODE : BPP

EXAMINATION DATE : DECEMBER 2018 / JANUARY 2019

DURATION : 3 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF **THREE (3) PAGES**

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- Q1** (a) Differentiate **THREE (3)** principle operations in press-working of metal-sheet (shearing mechanism). Your answer should include the name and definition of the operation with appropriate illustration. (9 marks)
- (b) State **THREE (3)** basic types of adhesives and give **TWO (2)** examples of each. (6 marks)
- (c) Differentiate **FIVE (5)** types of file using appropriate illustration. (10 marks)
- Q2** (a) List **FIVE (5)** types of commercial glasses. (5 marks)
- (b) Differentiate **FOUR (4)** properties of two types of glasses as in **Q2(a)**. (4 marks)
- (c) Compare **TWO (2)** methods of piece-ware shaping made from glass. Your answer should include name, an example of product and forming process of respective method with aid of illustrations and label. (12 marks)
- (d) Illustrate the process of continuous glass fibres with labels. (4 marks)
- Q3** (a) List **THREE (3)** groups of ceramics with examples. (6 marks)
- (b) Describe the curing mechanism of Portland cement. (6 marks)
- (c) Describe **THREE (3)** important properties of ceramics. (12 marks)

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- Q4** (a) State **FIVE (5)** common mammalian skins used for leather production. (5 marks)
- (b) Differentiate **THREE (3)** skin structures of **THREE (3)** mammalian skins as in **Q4 (a)**. (9 marks)
- (c) The textile can be made of either cellulosic, proteinaceous, or synthetic fibres. Compare these **THREE (3)** fibres with two examples. (12 marks)

- END OF QUESTIONS -

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