

INSTRUCTIONS:

This section consists of **FOUR (4)** structured questions. Answer **ALL** questions.

ARAHAN:

Bahagian ini mengandungi EMPAT (4) soalan struktur. Jawab SEMUA soalan.

QUESTION 1**SOALAN 1**CLO1
C1

(a) List **THREE (3)** textile products for each of the category below:

Senaraikan TIGA (3) jenis produk tekstil untuk setiap kategori di bawah:

- i. Sport and Recreation
- ii. Transportation

[6 marks]
[6 markah]

CLO1
C2

(b) i. Identify **FIVE (5)** secondary properties of textile fibre.

Kenalpasti LIMA (5) sifat sekunder serat tekstil.

[5 marks]
[5 markah]

ii. Explain the contribution of textiles in daily life.

Jelaskan sumbangan textile dalam kehidupan harian.

[4 marks]
[4 markah]

CLO1
C3

(c) i. Sketch and explain a diagram of fibre with the following molecular arrangement:

Lakarkan dan jelaskan gambarajah serat dengan susunan molekul berikut:

- i. Crystalline
- ii. Amorphous

[6 marks]
[6 markah]

ii. Differentiate the fibre properties between amorphous and highly oriented.

Bezakan sifat serat bagi amorphous dan highly oriented

[4 marks]
[4 markah]

QUESTION 2**SOALAN 2**

- CLO1
C1 (a) Identify **FIVE (5)** similarities of all protein fibres.
Tentukan LIMA (5) persamaan sifat bagi semua serat protein.
- [5 marks]
[5 markah]
- CLO1
C2 (b) Explain, **TWO (2)** methods of sheep shearing process.
Terangkan DUA (2) kaedah pencukuran bulu kambing biri-biri.
- [4 marks]
[4 markah]
- CLO1
C3 i. Explain a throwing process to produce silk fibre.
Terangkan mengenai proses throwing dalam penghasilan serat sutera.
- [6 marks]
[6 markah]
- ii. Classify the different types of thrown yarn below:
Kelaskan perbezaan untuk jenis thrown yarn di bawah:
1. Single
 2. Tram
- [4 marks]
[4 markah]
- CLO1
C4 (c) Sketch a diagram and explain the function of cotton-gin machine.
Lakarkan gambarajah dan terangkan fungsi mesin cotton-gin.
- [6 marks]
[6 markah]

QUESTION 3**SOALAN 3**CLO1
C1

- (a) i. State the type of spinning method used to produce polyester fibre.
Nyatakan jenis kaedah pemintalan untuk menghasilkan serat polister.

[2 marks]
[2 markah]

- ii. Name **TWO (2)** basic chemicals needed to produce polyester fibre.
Namakan **DUA (2)** kimia asas untuk menghasilkan serat polister.

[2marks]
[2 markah]

CLO1
C2

- (b) Explain **THREE (3)** importance of drawing process to produce man-made fibres.
Terangkan **TIGA (3)** kepentingan proses penarikan bagi penghasilan serat buatan manusia.

[6 marks]
[6 markah]

CLO1
C3

- (c) i. Sketch and explain the diagram of melt spinning process.
Lakarkan dan terangkan gambarajah proses pemintalan lebur.

[7 marks]
[7 markah]

CLO1
C3

- ii. Relate the following properties to polyester and viscose rayon:

Kaitkan sifat-sifat berikut dengan poliester dan viskos rayon:

- i. Resistance to acids
Ketahanan pada asid
- ii. Resistance to microorganism/insect
Ketahanan pada mikroorganisma/serangga

[8 marks]
[8 markah]

QUESTION 4**SOALAN 4**CLO1
C1

(a) Define each of the terminologies below:

Terangkan setiap terminologi di bawah:

- i. Bicomponent fibre
- ii. Biconstituent fibre

[6 marks]
[6 markah]CLO1
C2

(b) i. Explain the importance of fibre modification.

Jelaskan kepentingan pengubahsuaian serat.[4 marks]
[4 markah]

ii.

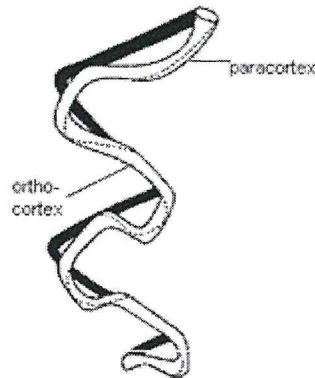


Figure 4 (b) / Gambarajah 4 (b) : Bilateral Structure

Based on Figure 4 (b) above, describe the bilateral structure related to Bicomponent System.

Berdasarkan Gambarajah 4 (b) di atas, jelaskan struktur bilateral yang berkaitan dengan system Bicomponent.

[6 marks]
[6 markah]CLO1
C3

(c) Sketch a diagram of sheath-core, matrix and side-by-side fibre with an appropriate sample to differentiate between bicomponent and biconstituent fibre.

Lakarkan gambarajah sheath-core, matrix dan side-by-side dengan satu contoh serat yang bersesuaian untuk membezakan serat bicomponent dan biconstituent.

[9 marks]
[9 markah]**SOALAN TAMAT**