

STRUCTURED: 100 MARKS
STRUKTUR: 100 MARKAH

INSTRUCTION:

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) With the right sketch, describe the concept of vertical organisation in the textile industry.

Dengan lakaran yang sesuai, nyatakan maksud vertical organisation di dalam industri tekstil.

[5 marks]
[5 markah]

CLO1
C2

- (b) Elaborate the meaning of a scouring process, and explain further the meaning of degumming and carbonising process.

Huraikan maksud proses scouring, dan terangkan dengan lebih lanjut tentang proses degumming dan carbonizing.

[10 marks]
[10 markah]

CLO1
C2

- (c) With a related sketch, explain how the bleaching process is done using hydrogen peroxide.

Dengan lakaran yang sesuai, terangkan bagaimana kaedah bleaching menggunakan hydrogen peroxide dilakukan.

[10 marks]
[10 markah]

QUESTION
SOALAN 2

CLO1
C1

- (a) Describe the difference between substrate and the substance.

Huraikan perbezaan di antara substrate dan substance.

[5 marks]

[5 markah]

CLO1
C3

- (b) You need to prepare a dyeing recipe from the data given:

Anda di kehendaki menyediakan resepi dyeing berdasarkan data yang diberi:

- | | | |
|------|------------------|----------|
| i. | Weight of fabric | = 2.5 g |
| ii. | % of dyes | = 2.5 % |
| iii. | Chemical | = 1 g/l |
| iv. | Liquor ratio | = 1: 20 |
| v. | Mother solution | = 1: 200 |

Calculate the volume of dye dilutes, total volume, water required & volume of chemical needed.

Kirakan isipadu pelarutan dye, isipadu keseluruhan, air yang di perlukan dan isipadu bahan kimia yang di perlukan.

[10 marks]

[10 markah]

CLO1
C2

- (c) Explain the process involve in the dyeing curve as shown in figure 2.1

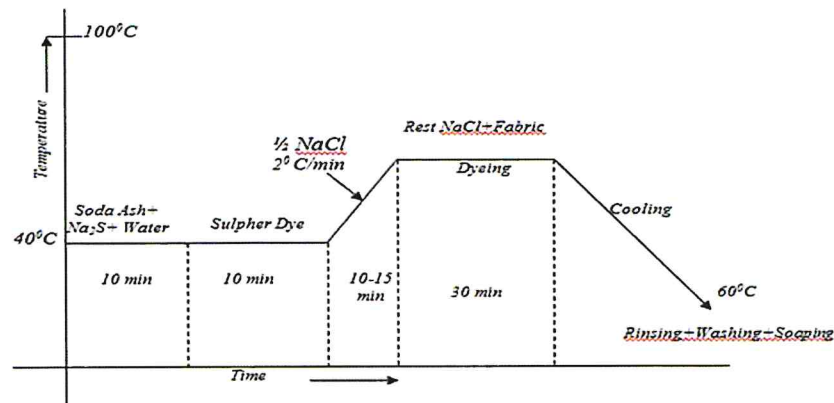


Figure 2.1 / Rajah 2.1

[10 marks]

[10 markah]

QUESTION 3
SOALAN 3CLO2
C2

- a) Explain what makes a rainbow always appear in the same colour arrangement.

Terangkan mengapa pelangi sentiasa memancar warna dalam turutan yang sama.

[5 marks]
[5 markah]

CLO2
C3

- (b) Write the difference between mechanical and chemical processes in textile finishing.

Tuliskan perbezaan diantara proses mekanikal dan kimia semasa proses kemas

[10 marks]
[10 markah]

CLO2
C4

- (c) Illustrate how the raising process is done in textile finishing.

Lakarkan bagaimana proses raising dilakukan semasa proses kemas tekstil.

[10 marks]
[10 markah]

QUESTION 4
SOALAN 4

CLO1
C1

- (a) Describe the flocculation process in textile chemical wastewater treatment.

Huraikan proses flocculation semasa rawatan air secara kimia dilakukan.

[5 marks]
[5 markah]

CLO1
C3

- (b) Express **FOUR (4)** major parameters that must be followed during the textile industry's wastewater treatment process.

Terangkan EMPAT (4) parameter utama yang perlu dipatuhi semasa melakukan rawatan air di dalam industri tekstil.

[10 marks]
[10 markah]

CLO2
C4

- (c) Figure 4.1 shows a wastewater treatment system in the textile industry. Analyze the related process in each number.

Rajah 4.1 menunjukkan satu sistem rawatan air di industri tekstil.

Analisa proses yang berkaitan berdasarkan nombor yang tertera.

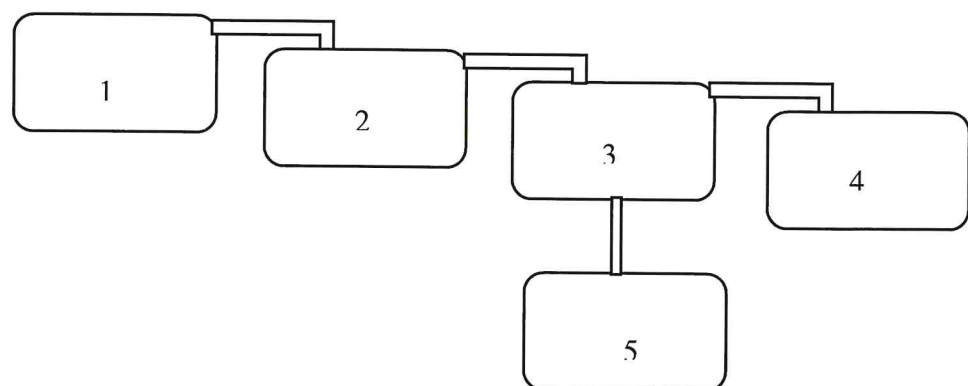


Figure 4.1/ Rajah 4.1

[10 marks]
[10 markah]

SOALAN TAMAT