

KHULNA UNIVERSITY OF ENGINEERING & TECHNOLOGY

Department of Textile Engineering

B. Sc. Engineering 1st Year 2nd Term Examination, 2017

TE-1221
(Textile Fibers)

Time: 3 Hours

Total Marks: 210

- N.B.:** i) Answer any THREE questions from each section in separate scripts.
ii) Figures in the right margin indicate full marks.
iii) Assume reasonable data if missing any.

SECTION-A

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|------|--|----|
| 1(a) | What are textile fibers? Classify textile fibers with example. | 10 |
| 1(b) | What is ginning? Distinguish between saw gin and roller gin. | 10 |
| 1(c) | Discuss structure and formation of Cotton fibers with schematic diagram. | 15 |
| 2(a) | Compare the chemical properties of Cotton and Jute fibers. | 15 |
| 2(b) | Write down the chemical composition of Jute fibers. How and why retting is done? | 10 |
| 2(c) | What are allied fibers? Why are they so called? Describe their properties. | 10 |
| 3(a) | Describe the textile fiber properties according to spinner view. | 13 |
| 3(b) | Distinguish between two categories of Woolen fabrics. | 08 |
| 3(c) | Why does Wool show good range of flexibility and absorbency? | 07 |
| 3(d) | “Bamboo fiber is used as hygiene materials”- why? What are the special features of Bamboo fiber? | 07 |
| 4(a) | What is meant by Sericulture? Describe the production stages of Silk fiber. | 12 |
| 4(b) | Why does Silk show shimmering appearance? Write down the structural features of Silk fiber. | 09 |
| 4(c) | What is degumming process? Why and how degumming is done? | 07 |
| 4(d) | What are the advantages of using Banana fibers? Write the end uses of Pina fiber. | 07 |

SECTION-B

- 5(a) Classify the regenerated fibers with examples. 04
- 5(b) Why Rayon is called regenerated cellulosic fiber? 05
- 5(c) Describe the regeneration reaction for Viscose. 06
- 5(d) Write the end uses of Viscose Rayon as a technical textiles. 06
- 5(e) Show the chemical reaction for Triacetate and Acetate. 08
- 5(f) Differentiate between Viscose and Acetate. What is Casein fiber? 06
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- 6(a) Mention the types of Rayon. What is Polyamidefibers? 06
- 6(b) Describe the spinning process for Nylon 66 production. 15
- 6(c) Differentiate between Nylon 6 and Nylon 66. 09
- 6(d) Mention physical properties of Nylon 6 and Nylon 66. 05
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- 7(a) Write down the raw material used for Polyester manufacturing. 06
- 7(b) Describe the manufacturing process for Polyester filament yarn. 15
- 7(c) Mention the trade name for the following fibers: 06
i) Polyester ii) Nylon iii) Viscose iv) Carbon fiber.
- 7(d) Write the end uses of the following fibers: 08
i) Nylon ii) Glass fiber iii) Carbon fiber iv) Polyester fiber
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- 8(a) Mention the man-made fiber spinning system. What is spinnerate? 06
- 8(b) State the merits and demerits for different spinning system of synthetic fiber. 09
- 8(c) Write short notes on: 20
i) Glass fiber
ii) Kevlar fiber
iii) Spandex fiber
iv) Carbon fiber

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KHULNA UNIVERSITY OF ENGINEERING & TECHNOLOGY

Department of Textile Engineering

B. Sc. Engineering 1st Year 2nd Term Examination, 2017

Hum-1221

(Business and Communicative English)

Time: 3 Hours

Total Marks: 210

N.B.: i) Answer any THREE questions from each section in separate scripts.

ii) Figures in the right margin indicate full marks.

iii) Assume reasonable data if missing any.

SECTION-A

- 1(a) Make sentences on the following structures using the verbs given in brackets. 14
- i) *Subj. + vit + adverbial of place* (Work as verb)
 - ii) *Subj. + Linking verb + adj. complement* (Look as verb)
 - iii) *Subj. + Linking verb + noun complement* (Look as verb)
 - iv) *Subj. + vt + gerund as object*. (Finish as verb)
 - v) *Subj. + vt + object + adj. complement* (Make as verb)
 - vi) *Subj. + vt + object + noun complement* (Make as verb)
 - vii) *Subj. + vt + object + object* (Make as verb)
- 1(b) Make sentences using the following modals as directed: 12
- Could (polite request), Might (Possibility), Must (Prohibition), Dare (Bold assertion),
Used to (Habit), Need (Not necessary)
- 1(c) Make sentences using the following phrases and idioms. 09
- Part and parcel; As to; Blue blood; Crocodile tears; Point blank; en suite.
- 2(a) Frame the whquestions from the underlined parts of the following answers. 14
- i) I like simple minded people.
 - ii) She came to my residence to meet me.
 - iii) I heard the girl singing.
 - iv) I saw my friend off at the airport.
 - v) I get down from a train at Khulna station.
 - vi) His father has been ill for several days.
 - vii) Dhaka is famous for mosque.
- 2(b) Make sentences using the following words as directed. 12
- Phone (as verb); Mobile (Adjective); Can (as noun); Home (as adverb); go (as noun);
But (As pronoun)
- 2(c) Change the following words as directed and make sentences with the changed words- 09
- Man (into adjective); White (into verb); Urgent (into noun); Watch (into adjective);
Watch (into noun); Ideal (into verb)

3(a) Complete the following sentences with subordinate clauses-

14

- i) _____ is unknown.
- ii) The thief confessed _____.
- iii) I believed _____.
- iv) This is exactly _____.
- v) He is not so quick _____.
- vi) Mina went on reading _____.
- vii) The tea was so hot _____.

3(b) Express the following notions/attitudes in sentences:

12

Co-operation, disliking, agreement, indifference, happiness, surprise

3(c) Correct the following sentences:

09

- i) Five plus five are ten
- ii) Twenty years are long time
- iii) Either my daughters or my son are coming today
- iv) One third of the members of this group is present
- v) This pair of shoes are very nice
- vi) The number of the students in the class were 50

4(a) Make a word with each of the following prefixes and suffixes and use them in 14 sentences.

A-----, Out-----, Post-----, Se-----, -----ty, -----way, -----ry

4(b) Transform the following sentences as directed:

12

- i) Nothing is difficult there. (Interrogative)
- ii) There are not many students in the college. (Affirmative)
- iii) Very few boys are as believable as Rahaf. (Superlative)
- iv) If you try heart and soul, you can fulfil your dream. (Simple)
- v) Would that I were a child again. (Assertive)
- vi) Rana got the news and hurried home. (Complex)

4(c) Identify the parts of speech of the underlined words of the following sentences:

09

- i) He stood before me.
- ii) Look before you leap.
- iii) It never rains but it pours.
- iv) There was none but shed tears.
- v) A well timed fast is better than a cure.
- vi) Go fast.

SECTION-B

5(a) Read the passage and answer the questions: 20

Education is very important for the society as well as for the individual. However, there are many kinds of learning and educational development, so it's very difficult to work out which are the best paths to educational success. Nothing demonstrates this more than the differences between the lifestyle of high school students and university students.

Firstly, university students have more responsibilities than high school students. They have to be more independent and make decisions by themselves. For example, they have to manage their schedules and do assignments. In contrast, high school students just have to follow the rules and obey their teachers. Secondly, high school students have more fun than university students. Their lives are less serious and more carefree. University students, however, do not have much free time. And they are often stressed because their exams are more serious. Finally, university students mix with different kinds of people. They have to start to learn to live in the real world. Consequently, they become more open minded. High school students, on the other hand, live in a narrower, smaller world. They usually go to school with people similar to themselves. They live similar lives and think alike. No one challenges their ideas.

It seems clear that different educational situations and environments suit different age groups. We need to try and pick the best features of the lifestyles of high school and university students to create better systems for the next century.

- i) What is a problem with creating an effective educational system?
- ii) What positive qualities do students learn at university?
- iii) What are the benefits of being a high school student?
- iv) Write two weaknesses of the high school students' life style.
- v) Add one more quality that students should learn at university.

5(b) Make a précis of the above passage. 15

6(a) Write a paragraph on 'Robots: Friend or Foe'. 15

6(b) Amplify the idea contained in the statement- 20
'First deserve, then desire'.

7(a) Globe Textile Mill is looking for a Textile Engineer as a Process Manager who has 20
experience in melt spinning plants. His work is to plan and co-ordinate operational activities of plant. Prepare your CV and apply for the post.

7(b) Suppose your department arranges a 3 days intensive course on silk fabric dyeing by a prominent professor of University of Technology Sydney. The Head of your department informs the 4th year students to attend this course. It also says that there will be a discussion session on the final day of the course and the student getting the highest score in the session will get the opportunity to attend a seminar in Sydney. Write a memo on the above information. 15

8 Write a free composition on any one of the following: 35

- i) The role of Textile engineers in the nation building programme.
- ii) Truthfulness

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