



Daffodil International University
Faculty of Engineering
Department of Textile Engineering
Program: B.Sc. in Textile Engineering
Final Examination, Semester: Summer-2026

Course Code: 0723-225

Credit Hours: 3.0

Time: 2 hours.

Name & Designation of the Examiner: Md. Mashud Raihan(MR), Assistant Professor

Date and Time of the exam: 19.08.2026, 03:00 PM

Course Title: Yarn Manufacturing-II

Total Marks: 40

[Answer the questions sequentially]

1. Answer any Eight (8) of the following Nine [CO-1, PO-1, C/L-2] 8×4 = 32

- ☒ a) Relate the equation with increasing bobbin dia, bobbin speed will be decreases by mentioning their principles.
- ☒ b) Classify drafting systems with different aspects for ring spinning system.
- ☒ c) Summarize the features of roving frame technology and explain their impact on the spinning process.
- ☒ d) Outline the Uster Classimat yarn faults with necessary diagram.
- e) Draw and sketch a spindle, and state the recommended traveler numbers for various yarn counts.
- ☒ f) Demonstrate the principles of Servo Motor Drives for Drafting Rollers, and Flyers Work in a Speed Frame.
- ☒ g) Explain the necessity of using a speed frame between the draw frame and ring frame.
- ☒ h) Explain how yarn count, spindle speed and ring diameter affect the selection of a traveller.
- ☒ i) Describe the major components of an auto-coner and explain their functions in the winding process.

2. Answer the question [CO-2, PO-2, C/L-3] 4×2=8

- a) A speed frame has 144 flyers running at 1250 rpm with 88% efficiency. It produces 1.8 Ne roving with a twist multiplier of 1.0. Calculate its production in kg per 8-hour shift.
- b) In a Ring frame 36 Ne carded knit yarn is to be spun in which spindle speed is 16000 rpm and there are 1200 working spindles. If the machine runs at 92% efficiency and the twist multiplier is 3.68 Finds out its production in grams per spindle (GPS) per hour.