NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF TEXTILE TECHNOLOGY

END OF SECOND SEMESTER EXAMINATIONS - AUGUST 2009

TXT 4207 – YARN TECHNOLOGY III

TIME: 3 HOURS

INSTRUCTIONS

Answer **ALL** Questions. Each question carries **25 marks.**

QUESTION 1

Using schematic diagrams, describe tensions involved in efficiency of yarn winding

(25)

QUESTION 2

Discuss 5 causes of defects in cone winding and how they can be rectified

(25)

QUESTION 3

(a) Discuss in detail the objectives of winding.   **(14)**

(b) A cylindrical package wound on a centre diameter of 5 cm, the spindle speed is

   constant at 3200 rev/min. if the traverse velocity is 205 m/min, determine:

   (i)   the net winding rate at the start of winding

   (ii) the net winding rate at package diameter of 16 cm,

   (iii) the angles of wind at the start and at a diameter 16 cm

(9)

QUESTION 4

(a) Explain the purpose of yarn clearing.   **(13)**

(b) Compare and contrast the function of two types of clearers.   **(12)**

END OF QUESTION PAPER