B. Tech.
(SEM. IV) EXAMINATION, 2006-07
SPINNING TECHNOLOGY - II

Time : 3 Hours] [Total Marks : 100

Note :  (1) Attempt all questions.
        (2) All questions carry equal marks.

1 Attempt any four parts of the following :
   (a) ‘Comber upgrades cotton’ – discuss.
   (b) ‘Comber is not a perfect fibre fractionative device.’
       – Explain.
   (c) ‘Modern combers are provided with reduced length
       of feed’ – why?
   (d) 'Unicomb is preferred in modern highspeed comber,'
       – Explain the advantage of unicomb with normal
       comb.
   (e) Discuss the advantages of combed yarn over a carded
       yarn.
2 Attempt any four parts of the following:
   (a) Explain why the flyer rotational speed is kept constant instead of constant bobbin rotational speed.
   (b) Discuss with the help of neat sketch, any modern drafting system in speed frame.
   (c) Why the speed frame is required to be stopped during a break and how it is done?
   (d) Discuss the design and advantages of a flyer top.
   (e) ‘Speed frame is not essential for a modern spinning frame’ – why?

3 Attempt any two parts of the following:
   (a) What changes are required in speed frame while changing the hank of the rove?
   (b) Why the ends are tapered in roving bobbin and how it is done?
   (c) Discuss the functions of differential motion of speed frame and discuss one of such units.

4 Attempt any two of the following:
   (a) Explain the principle of twisting and winding as applied in ring spinning frame.
   (b) Discuss the arrangement of a creel zone in a ring frame and mechanism of umbrella creel.
(c) Discuss the functions of the following:

(i) Spacer in drafting

(ii) Nose bar

(iii) ANBC Ring

(iv) Traveller clearer.

5 Attempt any two parts of the following:

(a) Discuss any modern spindle driving arrangement in ring spinning. Why synthetic tapes are preferred over cotton tapes?

(b) Draw and discuss various components in spindle and bolster in ring frame. Why spindle speed is kept different in various doff position?

(c) Discuss the various factors in details that are responsible for end breaks in spinning.