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Paper Id: **164606**

Sub Code: NCT 603

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B TECH
(SEM VI) THEORY EXAMINATION 2017-18
ADVANCE YARN MANUFACTURE

Time: 3 Hours

Total Marks: 100

- Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.
2. Any special paper specific instruction.

Section-A

1. Attempt **all** questions in brief. **(2 x 10 = 20)**
- (a) What is Back Doubling?
 - (b) What are the limitations of Ring spinning system?
 - (c) What do you mean by self twist yarn?
 - (d) What is twist less yarn?
 - (e) What do you mean by texturization?
 - (f) Define friction spinning.
 - (g) What are the applications of rotor yarn?
 - (h) What is the role of air during air jet spinning?
 - (i) How ring spun yarn is differ from friction spun yarn.
 - (j) What are the properties of textured yarn?

Section-B

2. Attempt any three questions from this section. **(10 x 3 = 30)**
- (a) State the reasons behind evolution of New spinning systems and explain the principle of rotor spinning.
 - (b) Briefly discuss about the raw material requirement and preparation of feed material for the preparation of rotor yarn.
 - (c) Compare the relative merits & demerits of DREF-2 & DREF-3 spinning systems.
 - (d) State the principles of formation of yarn in Air jet spinning systems. Illustrate few examples about properties of Air jet spun yarn vis-a vis Ring frame spun yarn.
 - (e) State the mechanism of twisting for the formation of Friction spun yarn. State the limitations of Friction spun yarn.

Section-C

3. Attempt any one question from the following: **(10 x 1 = 10)**
- (a) Discuss the process of production of multicolored yarn.
 - (b) Discuss the various factors which affect the properties of rotor yarn.
4. Attempt any one question from the following: **(10 x 1 = 10)**
- (a) Mention the applications of plyfil yarn with respect to their properties.
 - (b) With neat sketch explain the false twist texturization process.

5. Attempt any one question from the following: **(10 x 1 = 10)**
(a) Briefly discuss on assembly winding system.
(b) Explain the solvent texturization process of wool.
6. Attempt any one question from the following: **(10 x 1 = 10)**
(a) State the application of fancy yarn.
(b) What do you mean by breaded yarn? Explain its manufacturing process.
7. Attempt any one question from the following: **(10 x 1 = 10)**
(a) Explain the electrostatic spinning system.
(b) What are the advantages of new spinning system over conventional spinning system?