THE TEXTILE ASSOCIATION (INDIA)
A T A PART III EXAMINATION 2019
PAPER – A 3OD
KNITTING TECHNOLOGY

Date: 23.12.2019
Marks: 100
Time: 10.00 am to 1.00 pm

Instructions:
1. Attempt six questions out of which Q.1 is compulsory
2. Answer each main question on new page
3. Figures to the right indicates full marks
4. Illustrate your answers with sketches and flow-charts wherever necessary.
5. Use of non-programmable electronic calculator permissible
6. Mobile and any other communication devices are not allowed in exam hall
7. Assume suitable data wherever necessary.

Q. 1. Attempt any Five

a. State the properties of Purl structure
b. Explain bird eye backing
c. Give classification of weft knit jacquard devices.
d. Calculate the run-in ration and draw the lapping movements of:
   FGB: 1-0 /2 – 3//
   BGB: 1-2/1-0//
e. Define. (i) Rack, (ii) Quality and (iii) Run-in
f. What is pillar structure? Explain it with lapping diagram

Q. 2

a. Differentiate between Warp and Weft Knitting.
b. Describe passage of yarn through Tricot warp knitting machine

Q. 3

a. Explain half set and part set threading with suitable examples of each.
b. Explain Knitting cycle of latch needle on Circular weft knit machine

Q. 4

a. Explain Knitting machine needles with the help of neat sketch.
b. Explain and draw the anatomy of socks
Q. 5

a. Explain Reverse Lock knit structure with lapping diagram, Chain link arrangement.

b. Compare latch needle with bearded needle.

Q. 6

a. Explain electronic needle selection device.

b. Explain formation of miss and tuck stitch with the help of neat diagram

Q. 7

a. Explain width wise shaping on weft knitting machine.

b. Explain yarn properties required for weft knitting

Q. 8

a) A circular weft knitting machine having 20 feeders, running at the speed of 25 rpm, knitting fabric with stitch length equal to 0.15" with 800 needles, efficiency 84% and count of cotton yarn knitted is 20's. The fabric is knitted with 26 courses/inch. Calculate the production per yards and pound/hr.

b) Give difference between Rib and Purl fabric.

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