

**B.TECH. DEGREE EXAMINATIONS: APRIL /MAY 2009**

Third Semester

**TEXTILE TECHNOLOGY (FASHION TECHNOLOGY)**

**U07FT303 Fabric Manufacture**

**Time: Three Hours**

**Maximum Marks: 100**

**Answer ALL the Questions:-**

**PART A (20 × 1 = 20 Marks)**

1. State the correctness of the statements

Statement (1): The angle of wind in drum winding machine is not changed from inside to outside of the package.

Statement (2): The angle of wind in precision winding machine is changed from inside to outside of the package.

- A) 1 is false and 2 is true                      B) Both statements are true  
C) 1 is true and 2 is false                      D) Both statements are false

2. Identify the package defect occurs due to higher yarn tension during winding.

- A) Soft cone      B) Ribbon shaped cone      C) Stitches cone      D) Bell shaped cone

3. The important function of falling rollers in ordinary beam warping machine is \_\_\_\_\_

- A) To compensate the slackness of warp sheet  
B) To measure the predetermined length of warps  
C) To stop the machine, when end breakages occurs  
D) To regular the width of warp sheet

4. State the correctness of the statements

Statement (1): Normally the length of bunch in a pirn is 3 to 4 picks

Statement (2): Normally the length of bunch in a pirn is 3 to 4 meters

- A) 1 is false and 2 is true                      B) Both statements are true  
C) 1 is true and 2 is false                      D) Both statements are false

5. After the drying the splitting force required for the separation of warp sheet in sizing process is depends on \_\_\_\_\_

- A) Size add – on                                      B) Yarn CSP  
C) Yarn count                                        D) Number of warp yarn

6. In sizing process the yarn stretch and tension can be controlled by controlling of \_\_\_\_\_ tension.
- A) Creel zone                      B) Size zone                      C) Drying zone                      D) winding zone
7. Identify the auxiliary mechanism in automatic loom used for checking the shuttle fly-out
- A) Warp stop mechanism                      B) Brake mechanism  
C) Fast reed mechanism                      D) Weft stop mechanism
8. In seven wheel take-up mechanism, the whole number of weft density is depends on number of teeth in \_\_\_\_\_
- A) Standard wheel    B) Change wheel                      C) Stud wheel                      D) Ratchet wheel
9. Identify the drop-box loom used for insertion of odd picks and also more colors of weft yarns.
- A) 2 X 1                      B) 2 X 2                      C) 4 X 1                      D) 4 X 4
10. In single lift single cylinder jacquard loom, Identify the principle of shed formation.
- A) Semi-open shed                      B) Center closed shed  
C) Open shed                      D) Bottom closed shed
11. Which one of the following is the example for negative picking?
- A) Shuttle picking                      B) Air jet picking                      C) Rapier picking                      D) Projectile picking
12. State the correctness of the statements
- Statement 1: Gabler system of weft insertion is also called as loop transfer  
Statement 2: Tip transfer of weft insertion is also called as Dewas system
- A) Both statements are false                      B) Both statements are true  
C) 1 is true and 2 is false                      D) 1 is false and 2 is true
13. The coarse density of the knitted fabric depends on \_\_\_\_\_
- A) Machine gauge                      B) loop length                      C) Number of feeder                      D) Yarn count
14. In weft knitting cylinder cam, the stitch cam is raised away from the clearing cam \_\_\_\_\_ loop formed & it produces \_\_\_\_\_ fabric.
- A) shorter & tighter                      B) longer & flimsy                      C) tuck & tighter                      D) float & open
15. Identify, which jacquard has unlimited needle selection for the production of pattern fabric
- A) Punched paper roll                      B) Punched steel tape  
C) Peg drum                      D) Multi step pattern drum
16. What is 'Nesting' in warp knitting machine?
- A) Needle bar                      B) Sinker bar                      C) Guide bar                      D) Presser bar
17. Flocking
- A) Natu
- C) Cont
18. State the
- Statement
- hydroen
- Statement
- injector
- A) 1 &
19. In melt-
- A) Am
- C) equi
20. Math th
- Bondin
- P) Ther
- Q) Che
- R) Mec
21. (a) (
- (
- (b
22. (a)

ig of \_\_\_\_\_ 17. **Flocking** is the process of applications of \_\_\_\_\_ in the surface of the non-woven fabrics.

- A) Natural long fibers  
B) Continuous mono filaments  
C) Continuous multi filaments  
D) Synthetic short fibers

winding zone  
huttle fly-off 18. **State the correctness of the statements**

Statement (1): The spun laced non-woven fabric absorbency is depends on hydroentanglement.

Statement (2): The hydroentanglement is depends on water velocity and water flow rate in injector.

- A) 1 & 2 are false    B) 1 is true & 2 is false    C) 1 & 2 are true    D) 1 is false & 2 is true

Rachet wheel  
lors of weft 19. **In melt-blown process the air temperature should be \_\_\_\_\_**

- A) Ambient temperature  
B) lesser than polymer temperature  
C) equivalent to polymer temperature  
D) higher than polymer temperature

4 X 4  
ormation. 20. **Match the following**

Bonding process

Bonding methods

P) Thermal bonding

S) Looping method

Q) Chemical bonding

T) Ultrasonic method

R) Mechanical bonding

U) Calendering method

V) Spray method

W) Foaming method

A) PW, QT, RV

B) PT, QV, RS

C) PV, QS, RW

D) PS, QU, RT

Projectile pic

### PART B (5 x 16 = 80 Marks)

21. (a) (i) Enlighten the sequence of process employed in weaving preparatory processes. (8)

(ii) Explain the working principle of various controls employed in an autoconer yarn path with respect to yarn quality. (8)

(OR)

(b) (i) With neat sketch, explain the working principle of automatic pirn winding machine. (8)

(ii) Compare and contrast between direct warping and sectional warping processes. (8)

22. (a) (i) Explain the working principle of single end sizing machine with neat sketch. (8)

(ii) Compare and contrast between the sizing of synthetic and cotton shirt material. (8)

(OR)

- (b) Enumerate the functions of primary motions in a shuttle loom. With neat sketch explain the working principle of tappet shedding mechanism and mention its sequence & timing. (8)
23. (a) (i) With necessary sketches, explain the working principle of climax shedding mechanism for the production of simple designed woven fabric. (8)

- (ii) Tabulate the value rating of various shuttleless looms with respect to their technical & economics. (10)

(OR)

- (b) (i) Explain the principle of weft insertion in multiphase loom with neat sketch. (10)
- (ii) Classify the woven fabric defects with examples, and explain the causes & remedies for any two defects. (8)

24. (a) (i) With cylinder cam, enlighten the sequence of loop formation in single jersey knitting machine with neat sketch. (10)

- (ii) Discuss the importance of yarn quality for the production of weft knitted fabric. (6)

(OR)

- (b) (i) Classify the jacquard knitting with respect to design area and explain principle of basic stitches formation in pattern wheel mechanism with neat sketch. (8)

- (ii) Explain the functions of essential knitting elements employed in raschel machine. (8)

25. (a) (i) With flow chart, explain the sequence of processes followed for the production of spun bonded non-woven fabric with neat sketch. (8)

- (ii) Tabulate the applications of non-woven fabric in various fields with their production techniques. (8)

(OR)

- (b) Classify the various bonding techniques in non-woven fabric production & explain the principle of fabric formation in mechanical needling process with neat sketches. (10)

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