

**FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI
SCHOOL OF ENGINEERING AND ENGINEERING TECHNOLOGY
DEPARTMENT OF POLYMER AND TEXTILE ENGINEERING**

2009/2010

HARMATTAN SEMESTER EXAMINATION

PTE 409:

KNITTING TECHNOLOGY

TIME: 2:30HRS

INSTRUCTION:

ANSWER FIVE QUESTIONS ONLY

DATE: 15-05-10

Q1

- (a) Explain the following knitting terms
(i) course (ii) needle loop (iii) gauge (iv) wale (v) stitch (vi) sinker-loop (vii) knit (viii) stitch length (x) stitch density.
- (b) Outline ten characteristics of weft knitted fabrics

Q2

With the aid of diagrams, compare and contrast the structures, properties and end-uses of 1x1 purl and 1x1 rib fabrics.

Q3

- (a) Define the followings
(i) knitting (ii) non-woven fabric (iii) weft knitting (iv) weaving (v) warp knitting
- (b) Show the simplest fabric construction of weft knitted, warp knitted and woven fabrics using suitable diagram.

Q4.

- (a) Classify the types of weft knitting machines used in the knitting industry, indicate the end-uses of their products.
- (b) Give ten characteristics of warp knitted fabrics

Q5

- (a) For two basic reasons the warp knitting machine achieve its greatest potential with continuous filament yarns. Explain.
- (b) Draw the loop structure of a plain basic weft knit, showing both the technical face and back respectively.

Q6

- (a) Explain the following warp knitting construction and give two examples of each;
(i) Milanese (ii) Tricot (iii) Raschel
- (b) A warp let-off motion and a fabric take-up motion are required for fabric construction, explain.
- (c) State the factors responsible for the growth and versatility of warp knitting industry.

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2006/2007 HARMATTAN SEMESTER EXAMINATIONS
PTE 409: KNITTING TECHNOLOGY

Date: Wednesday 13/06/2007

Registration Number:.....

Serial No:.....

Instructions:.....

Section A: Answer all questions. Circle the answer where necessary directly on the question paper. This will be collected after 1 hour.

1. The most common method of constructing fabric is (a) sewing (b) knitting (c) weaving (d) bonding
2. Garments are made mainly from (a) fabric (b) fibre (c) selvage (d) yarn
3. The term 'cut' is a measure of fineness of a knit, and the higher the number of the cut the coarser is the fabric (a) true (b) false
4. Which of the following are knit fabrics? (a) jersey (b) crochet (c) b and c (e) a, b and c
5. Which of the following are warp knit fabrics? (a) fleece (b) interlock (c) Rachel (d) rib (e) b and d
6. Which of the following types of knits are made by machines with two-needle beds? (a) rib knits (b) purl knits (c) double knits (d) interlock (e) a, b, c and d
7. Double knit or double jersey fabrics have the same appearance on both sides (a) True (b) False
8. Among the products which are likely to be made from double knits are (a) T – shirts (b) high pile fabrics (c) sweat shirts (d) hand – knit sweaters (e) none of the above
9. Design may be applied to a fabric by all but: weaving (b) dyeing (c) carding (d) embroidering
10. Fibres can be identified by all but: (a) burning test (b) chemical test (c) reading tables (d) taste
11. Loosely knitted garments should be: (a) hung on the clothes lines to dry (b) hung with clothes pegs on the rails (c) laid flat on table tops (d) any of the above.
12. The price of purl knit fabrics tends to be higher than that of other knits because:
(a) The purl knitting machines operate at slower speeds (b) more yarn is required for making purl knit (c) only limited patterns can be made in the purl knit (d) a and b
13. The presence of fashion marks on a knitted garment: is considered to be a sign of better quality (b) means that stitches have been dropped or added so as to shape the garment's piece (c) is a defect in the garment (d) a and b (e) a, b and c
14. The problems consumers seem to encounter most frequently in regard to knit fabrics are: (a) pilling (b) stretching (c) snagging (d) shrinking (e) a, b, c and d
15. In general, knits made from cotton, acetates, and rayons will be less likely to stretch out of shape than those made from synthetics (a) True (b) False
16. "Fabric count" is an important descriptor what units are used to describe fabric count for: (a) Woven fabrics.....
(b) Knitted fabrics.....
17. The size thickness a yarn can be measured in various ways. What would be the usual measures of a yarn size for (a) cotton yarn..... (b) wool yarn..... (c) filament yarn.....
18. Knits are popular for use in sportswear because they are (a) stretch (b) warm (c) absorb perspiration (d) tend to be wrinkle-resistant (e) a, b, c and d (f) none of the above.
19. Felt is an inelastic fabric that does not fray (a) True (b) False