(Following Paper ID and Roll No. to be filled in your Answer Books) Paper ID: 164858 Roll No.

B.TECH.

Theory Examination (Semester-VIII) 2015-16

ADVANCES IN CARPET MANUFACTURING

Time: 3 Hours Max. Marks: 100

Section-A

- 1. Note: Attempt all questions. All questions carry equal marks. Write answer of each part in short. (10×2=20)
 - (a) Name Prime areas where carpets are used.
 - (b) Which pile fibre is traditionally used in carpets and give justified reasons for that?
 - (c) Why melt spinning is not used for acrylic fibres?
 - (d) Give few advantages of acrylic fibre?
 - (e) How is nylon 66 produced?

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- (f) Write two techniques through which texturing of BCF yarn is done?
- (g) Why direct spinning of filament yarns are not used in carpet industry?
- (h) Give one problem associated with long woolen fiber and short woolen fiber
- (i) How is wool fiber diameter expressed? What is the diameter of wool fiber used in carpet industry?
- (j) What is the necessity of applying insect resist treatment on wool?

Section-B

2. Attempt any five questions from this section.

 $(5 \times 10 = 50)$

- (a) Brief three different steps in yarn engineering?
- (b) Write short notes on any two of the following:
 - (i) autoclave twist setting
 - (ii) superba twist setting
 - (iii) suessen twist setting.

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- (c) Describe the setup used for batch dyeing of carpet? give suitable diagrams.
- (d) What are the choice of polymers for artificial turf fibres or yarns?
- (e) Describe a typical scouring line.
- (f) What are the different components of wool blend used in carpet yarn production?
- (g) What are the types of textiles used in relation to the sports surfaces?
- (h) What are the specifications requird for the carpets used in commercial spaces?

Section-C

Note: Attempt any two questions from this section

 $(2\times15=30)$

3. Describe the snehabha backing technique used in the tufted carpets

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- 4. What are the different steps used in the manufacture of hand knotted carpets
- 5. How is the resilience factor of yarn and fibres important in sports surfaces?

