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

Paper ID : 160808 Roll No. | | | | | | | | | | |

B.TECH.

Theory Examination (Semester-VIII) 2015-16

HIGH PERFORMANCE FIBRE

Time : 3 Hours ***Max. Marks : 100***

Section-A

1. Attempt all questions. Each question carry two marks.

Fill in the blanks. (2×10=20)

(a) Nylon 6 is ..... fibre.

(b) High performance fibres are produced through ..... spinning.

(c) Molecular weight of polymer in case of high performance fibre is ..... .

(d) Amorphous position of polymer is ..... position.

WWW.UPTUNOTES.COM

(e) In gel form, material is 100% ..... .

(f) Processing temperature for glass fibre production can be reduced by ..... .

(g) Spinnability ratio for glass fibre is .....

(h) Sudden cooling of molten glass material gives ..... structure.

(i) Water absorbency of PE fibre is ..... .

(j) E & R are ..... grade fibre.

Section-B

2. Attempt any five questions. Each question carry ten marks. (10×5=50)

(a) What are tribological properties?

(b) What is function of drawing in high performance fibre production?

(c) What is glass fibre ?

(d) Why textile fibres are anisotropic in nature?

WWW.UPTUNOTES.COM

(e) What is difference between Kevlar and Nomex fibres?

(f) Discuss vectran fibres in brief.

(g) Discuss chemical characteristics of spectra fibre.

(h) Name different stages involved during production of carbon fibre.

Section-C

Attempt any two questions. Each question carry fifteen marks. (15×2=30)

3. What are aramid fibres? Give the production method of PPTA fibre with neat sketch.

4. Describe DJWS of PAN fibre for carbon fibre production.

5. Discuss gel spinning with neat sketch for production of high density polyethylene fibre.

WWW.UPTUNOTES.COM