THE TEXTILE ASSOCIATION (INDIA)
G.M.T.A (REvised) Part II Examination-2014
SECtion-D Paper-I D-5
MAnMADE FIBRE TECHNOLOGY

Date: 28.12.2014    Marks: 100    Time: 2.00 pm to 5.00 pm

Instructions: 1. Attempt six questions out of which Q.1 is compulsory
2. Answer each next main question on new sheet
3. Figure to the right indicate full marks
4. Illustrate your answer with sketches and flow chart
   wherever necessary
5. Use of nonprogrammable electronic pocket calculator
   permissible
6. Mobile and any other communication devices are not
   allowed in the examination hall.
7. Assume suitable data wherever necessary

Q.1
a. Explain the classification of manmade fibres.  (10)
b. Explain the need for manmade fibres and the limitations of them.  (10)

Q.2
a. Discuss the manufacture of polyester fibres with a neat diagram  (08)

B. Explain the principle of poly-condensation in the manufacture polyester
   polymer  (08)

Q.3
a. Give an account of addition polymerization with reference to manufacture of
   polyethylene.  (08)
b. Explain different end uses of polyamide fibres.  (08)

Q.4
a. Explain the properties of Teflon and Aramid fibres.  (06)
b. Describe principle of melt spinning and discuss the manufacture of LOY of
   polyester.  (10)
Q.5
a. Discuss the role of viscosity of melt solutions in the manufacture of polyester. (06)
b. Describe briefly different equipments used for melt spinning. (10)

Q.6 Explain the following: (16)

i. Cellulose acetate
ii. Polypropylene
iii. PVA
iv. PVC

Q.7
a. Explain the concept of quenching and finishing in the manufacture of manmade fibres (08)
b. Discuss the micro denier polyester fibres and their end uses. (08)

Q.8 Explain the following: (16)

i. Regenerated fibres
ii. Use of Aramid fibres
iii. Wet Spinning
iv. Spin finishes