THE TEXTILE ASSOCIATION (INDIA)
G.M.T.A (REVISED) EXAMINATION -2017
SECTION A PAPER –A.2
ENGINEERING CHEMISTRY

Date: 24.12.2017 Marks: 100 Time: 10.00 a.m. to 01.00 p.m.

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

Q. 1 Answer the following:
a. Define Hardness of water. What are its types?
b. Give any two methods for prevention of corrosion.
c. Give examples and classification of alloys.
d. What is neutralization number and mechanical strength.
e. Give uses of alloys.

Q2 a) What are surface active agents? Enlist its properties.
    b) Give the classification of surfactant. Draw a well labeled diagram of surfactant

Q3 a) Define polymer and polymerization. Compare between addition and condensation
    Polymerization.
    b) Explain the properties of cement.

Q4 a) Write short notes on solar and wind as renewable energy sources.
    b) What are lubricants? Give its classification and properties.

Q5 a) Define Proteins. What is denaturing of protein?
    b) Write short note on Zwitter ion effect and isoelectric point.

Q6) Explain Nernst Theory. Explain the Direct Chemical mechanism of dry corrosion.

Q7 a) What is starch? Explain its use in textile industry.
    b) Explain the properties of cellulose.

Q8 a) What are electrical insulators? Give their engineering applications.
    b) Give applications of PVC, Teflon, Bakelite, Nylon, and Polyurethane.