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PZ-848 Seat No._____

M. Sc. (Sem. IV) Examination

April / May – 2016

CHN-702(O) : Organic Chemistry

Time : 3 Hours] [Total Marks : 70

1 Answer any **two** : 14

(a) Write a note on refining of crude oil for getting fuels. What is carbonization ?

(b) What are important requirements of fibres ? Give an account of manufacture of Nylon-6.

(c) Write a note on aromatic chemicals production. What is Kapron ?

2 Answer any **three** : 14

(a) Give an account of application methods of paints in brief. What are thinners ?

(b) Give any two reasons for paint failure. Discuss the manufacture of varnishes.

(c) Describe the manufacture of TNT and picric acid.

(d) Give an account on screening smokes. What is napalm ?

3 Answer any **three** : 14

(a) Which are uses and industrial manufacturing processes of poly methyl methacrylate ? Define a graft copolymer.

(b) Give an account on addition polymers : their uses and productions.

(c) Write a note on cyclization reactions. What is a chain transfer reaction ?

(d) Give the classification of plastics. Distinguish isotactic, syndiotactic and atactic polymers.

4 Answer any **four** : 14

(a) How can you manufacture naphthalene balls and wax candles in a small scale industry ?

(b) Write a note on small scale detergent manufacture. Which are the classes of detergents ?

(c) Explain the terms surfactants and adsorption. Discuss their role in cleansing action.

(d) Give the small scale manufacture of safety match.

(e) How can you prepare shoe polish ?

5 Answer any **seven** in brief : 14

(a) Distinguish between permanent inks and semi-permanent inks.

(b) Explain what is rosin ?

(c) Give full forms and structures of RDX, HMX and DNB.

(d) Which are disinfectants in commercial phenyls ?

(e) What is a propellant ?

(f) Give one example of cross linkage reaction.

(g) How can you prepare poly vinyl alcohol ?

(h) Which are uses of urotropin ?

(i) Explain explosion temperature and heat of explosion.

(j) Explain cloud point.

(k) Describe the significance of PVC (pigment volume concentration)

(l) What are emulsion paints ?