**ALVA’S PU COLLEGE, MOODABIDRI**

**Department of Chemistry**

**CET/ NEET / JEE Mains Crash Course – 2020**

**Topic: Environmental Chemistry, Polymers and Chemistry in Everyday Life.-C12**

1. In almost all Indian metro cities like Delhi the major atmospheric pollutant is/are

1) Suspended particulate matter 2) Oxides of Sulphur

3) CO2 and CO 4) Oxides of nitrogen

**Answer 1**

1. Which one of the following statements is not true?

1) pH of drinking water should be between 5.5 to 9.5

2) Concentration of the below 6 ppm is good for the growth of fish

3) Clean water would have a value of less than 5 ppm

4)Oxides of sulphur nitrogen and carbon are the most widespread are air pollutant

**Answer 2,**

Ideal value of do growth of fishes is 8 mg/l. below this value fishes get susceptible to diseases

1. Which of the following organic compounds polymerizes to form the polyester dacron

1) Propylene and para HO-(C6H4)-OH 2) Benzoic acid and ethanol

3) Terephthalic acid and ethylene glycol 4) Benzoic acid and para HO (C6H4)OH

**Answer 3**

1. The two monomers used in the preparation of dextron are:

1) 3-hydroxy butanic acid and 3 hydroxypentanoic acid 2) Amino caroic acid and glycine

3) Isobutylene and isoprene 4) Lactic acid and glycolic acid

**Answer 1**

1. The antiseptic action of dettol is due to

1) Chlorobenzene 2) Chloroxylenol

3) Chloroquine 4) Chlorolamphenical

**Answer 2**

1. Which of the following antibiotics is not effective against infections caused by negative bacteria?

1) Penicillin

2)Amoxicillin

3)Ampicillin

4)All the three

**Answer 4**

All are Penicillin’s and hence they are not effective against gram negative bacteria.

1. Novolac, the linear polymer used in paints is

1)Copolymer of 1,3 butadiene and styrene

2)Obtained by the polymerization of methyl methacrylate.

3)Initial product obtained in the condensation of phenol and formaldehyde in the presence of acid catalyst4)Obtained by the polymerization of caprolactum

**Answer 3**

1. The formation of which of the following pair involves hydrolysis reaction?

1)Nylon 6 2)Bakelite 3)Nylon 6,6 4)Terylene

**Answer 1**

Formation of nylon 6 involves hydrolysis of its monomer (caprolactum) in the initial state

1. Match the column

Column I Column II

A. Oxides of sulphur I. Global warming

B. Nitrogen dioxide II. Damage to kidney

C. Carbon dioxide III. Blue body’s syndrome

D. Nitrate in the drinking water IV. Respiratory diseases

E. Lead V. Red haze traffic and congested areas

1)A – V ,B – I, C – III , D – IV , E – II

2) A – IV , B – V , C – I , D – III , E – II

3) A –IV , B – II , C – I , D – V , E – III

4) A – II , B – IV , C – V ,D – III , E – I

**Answer 2**

1. Which one of the following is not a common component of photochemical smog?

1)ozone 2)acrolein 3)peroxyacetyl nitrate 4)chlorofluorocarbons

**Answer 4**

1. Which one of the following is employed as antihistamine?

1)Diphenylhydramine 2)Norethindrone

3)Omeprazole 4)Chloramphenicol

**Answer 1**

Diephenylhydramine(Benadryl) is used as antihistamine

1. Green chemistry means such reactions which

1) Produce colour during the reaction

2) Reduce the use and production of hazardous chemicals

3) Are related to the depletion of ozone layer

4) Study the reaction in plants

**Answer 2**

1. Which of the following can possibly be used as analgesic without causing addiction and mood modification?

1) Morphine 2) Diazepam

3) Tetrahydrocational 4) N-acetyl-para-aminophenol

**Answer 4**

N-acetyl-para-aminophenol is a paracetamol

1. Natural rubber contains several thousand unit of X linked together in the polymer chain X is

1) Neoprene 2) Isoprene 3) Chloroprene 4) Styrene

**Answer 2**

1. Buna-N synthetic rubber is a Co-polymer of

1) H2C=CH-C(Cl)=CH2 and CH2=CH-CH=CH2

2) CH2=CH-CH=CH2 and C6H5CH=CH2

3) H2C=CH-CN and H2C=CH-CH=CH2

4) H2C=CH-CN and H2C=CH-C(CN)=CH2

**Answer 3**

1. Eutrophication causes reduction in

1) Nutrition 2) Dissolved Salts 3) Dissolved Oxygen 4)Effluents

**Answer 3**

1. Secondary pollutant PAN is formed by

1) Oxides of P 2) Oxides of N

3) Oxides of N and Hydrocarbon 4) Oxides of S

**Answer 3,**

RCO3 +NO2→RCO3NO2

(Free Radical) (PAN)

1. The Detergent which is used as a germicide is

1) Sodium laurylsulphate 2) Lauryl alcohol-ethoxylate

3) Cetyltrimethylammonium-chloride 3) Sodium-2-dodecylbenzenesulphate

**Answer 3**

1. The acylation of salicylic acid with acetic anhydride gives

1) Aspirin 2) Salicylaldehyde 3) Benzaldehyde 4) Benzoic acid

**Answer 1**

1. Which city is not part of Taj trapezium?

1) Agra 2) Firozabad 3) Mathura 4) Faridabad

**Answer 4**

1. Which of the following can be remelted time and again without producing any change?

1) Bakelite 2) PMMA

3) Urea-formaldehyde resins 4) Melamine-formaldehyde resin

**Answer 2,** PMMA (poly methyl methaacrylate)

1. Polymer used in bulletproof glass is?

1) PMMA 2) Lexan 3) Nomex 4) Kevlar

**Answer 2**

1. Which of the following is bacteriostatic?

1) Penicillin 2) Erythromycin 3) Aminoglycosides 4) Ofloxacin

**Answer 2**

1. Arsenic drugs are mainly used in the treatment of

1) Jaundice 2) Typhoid 3) Syphilis 4) Cholera

**Answer 3**

1. An antibiotic contains nitro group attached to aromatic nucleus. It is

1) Penicillin 2) Streptomycin

3) Tetracycline 4) Chloramphenicol

**Answer 4**

1. Natural rubber is not used in making footwear for polar region because

1) It becomes soft at temperature lower than 10°C

2) Natural rubber become brittle at temperature lower than 10°C

3) It melts at temperature lower than 10°C

4) It becomes stronger at temperature lower than 10°C

**Answer 2**

1. The number average molecular mass and mass average mol.mass of a polymer are respectively 30000 and 40000 the PDI of the polymer is :

1) <1 2) >1 3) 1 4) 0

**Answer 2**

PDI = = = 1.3

1. The non viable particulate is

1) Bacteria 2) Moulds 3) Fungi 4) Dust

**Answer 4**

1. Classical smog occurs in places of

1) Excess of SO2 2) Low temperature

3) High temperature 4) Excess NH3

**Answer 2**

1. Which of the following particles involve Green chemistry?

i. Substitute CFCS by environmental friendly HFCS and other compounds

ii. Replace halogenated solvent by liquid CO2 for dry cleaning

iii. Use of H2O2 for bleaching instead of Cl2

iv. Making disposable eating utensils and storage jars of plastics

1) i and ii 2) ii and iv 3) iii and iv 4) i , ii and iii

**Answer 4**

1. Substance used for preservation of coloured fruit juices is

1) Benzene 2) Benzoic acid 3) Phenol 4) Sodium metabisulphate

**Answer 2:** benzoic acid is used as preservation as a sodium benzoate

1. Which of the following is not correctly matched?

1) Water pollution – using synthetic detergent for washing clothes

2) Photochemical smog – releasing gases produced by automobiles and factories

3) Damaging ozone layer – using CFCs

4) Acid rain - releasing pesticides and fertilizers in water

**Answer 4**

1. The chemical name for melamine is

1) 1, 3, 5- triamino– 2, 4, 6 – triazine 2) 2, 4, 6- triamino -1,2,5, - triazine

3) 2 – amino– 1, 3, 5 – triazine 4) 2, 4 – diamino – 1,3,5 – triazine

**Answer 2**

1. The monomer of the polymer(CH3)3-C-CH2-+C(CH3)2

1) CH2=C(CH3)2

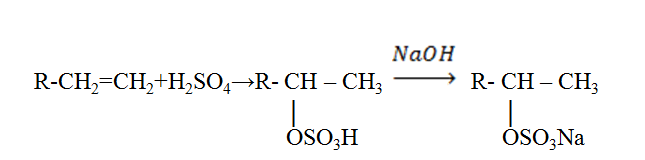
2) (CH3)2C=C(CH3)2

3) CH3CH=CHCH3

4) CH3CH=CH2

**Answer 1** , because it shows cationic polymerization.

1. In the following reaction sequence,



Where R = C14H29. The end product is

1) Soap 2) Detergent 3) A fertilizer 4) A preservative

**Answer 2,** detergents are sodium salts of long chain sulphonic acids.

1. Minamata disease of Japan is due to pollution of

1) Arsenic 2) Lead 3) Cyanide 4) Mercury

**Answer 4**, Mercury poisoning

1. An organic pollutant which causes water pollution

1) Chlorofluorocarbon 2) Radioactive discharge

3) Polyphosphate 4) Polychlorinated biphenyl

**Answer 4**, PCB is used as fluid in transformer and as lubricants.

1. Which of the following polymer is thermally most stable and chemically least reactive?

1) Saran 2) Teflon 3) Orlon 4) Chloroprene

**Answer 2**

1. Among Cellulose, PVC, Nylon and Natural rubber. The polymer in which intermolecular force of attraction is weakest is

1) Nylon 2) PVC 3) Cellulose 4) Natural rubber

**Answer 4**

1. Among the following sweetness which one has the lowest sweetness value?

1) Alitame 2) Aspartame 3) Saccharine4)Sucrolose

**Answer 2**

1. Today the concentration of green houses gases is very high because of

1) Use of refrigerator 2) Increased combustion of oils

3) Deforestation 4) All of the above

**Answer 4**

1. Which of the following polymers need at least one diene monomer for their preparation?

1) Dacron 2) Novolac 3) Neoprene 4) Teflon

**Answer 3**

Neoprene is a polymer of 2-chloro-1,3 – butadiene

1. The drug which is not a tranquilizer

1) Ibuprofen 2) Veronel 3) Luminal 4)Seconal

**Answer 1**

1. Which of the follow are thermoplastic polymers?

1) Polyethene , Urea- formaldehyde , polymervinyl

2) Bakelite ,Polyethene , Polystyrene

3) Polyethene , Polystyrene , Polyvinyls

4) Urea- formaldehyde , polystyrene , bakelite

**Answer 3**

1. Which of the following gases is not a green house gas?

1) CO 2) O3 3) CH4 4) H2O Vapour

**Answer 1**