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11+6=17 +1 | QN: 12 – A Re-evaluate 9-parts

Mid-Semester Examination-2023

CH-429

SECTION-1

Single Correct Answer:

Q1. The 3R in the context of Green Chemistry are
(A) Repair, Reuse and Recycle
(B) Repair, Reject and Reuse
(C) Reuse, Return and Repair
(D) Reduce, Reuse and Recycle

Q2. The order of the pollution prevention hierarchy is
(A) Dispose, recycle, prevent, and treat
(B) Prevent, recycle, treat and disposal
(C) Repair, reuse, recycle and dispose
(D) Remake, reuse and recycle and treat

Q3. Which of these reactions does not give 100% atom economy?
(A) Claisen rearrangements
(B) Diels Alder reaction
(C) Aldol condensation
(D) Sigmatropic rearrangements

Q4. Which of the following is/are not petrochemical(s): Phenol (I), Toluene (II), Aniline (III), Acetanilide (IV), Styrene (V)
(A) II, IV and V (B) III and IV
(C) IV only (D) III and IV

Q5. Which of the following is NOT petrochemical?
(A) Computer keyboard
(B) Plastic Chairs
(C) Cycle Tyre
(D) Cardboard

Q6. Which "R" is not a part of "11R
(A) Repurpose
(B) Return
(C) Refurbish
(D) Remove

Q7. According to the "Low effectiveness but High efficiency" matrix which of the following would lead to "high effectiveness but lower productivity"
(A) Wrong things in a correct way
(B) Right things in the wrong way
(C) Wrong things in an incorrect manner
(D) Correct things in a correct manner

Q8. Which of the following are the benefits of scrap policy? (i) help to repair and reuse old vehicles; (ii) scrapping old and expired vehicle is beneficial, (iii) reduce the manufacturing cost; (iv) create a viable circular economy; (v) helps to boost vehicle sales
(A) (i), (ii) and (iii)
(B) (ii), (iiii) (iv) and (v)
(C) (i) and (iv)
(D) (i), (iii) and (iv)

Q9. The major constituent of dry gas as well as associated gas is.
(A) Butane (B) Methane
(C) H_2S (D) He

Q10. Which of these is NOT a unit operation:
(A) Distillation (B) Crystallization
(C) Decantation (D) Centrifugation

Q11. Which of these chemicals cannot be easily manufactured from ethylene?
(A) Ethylene chlorohydrin
(B) Ethylene glycol
(C) Dichloroethane
(D) Dichloromethane

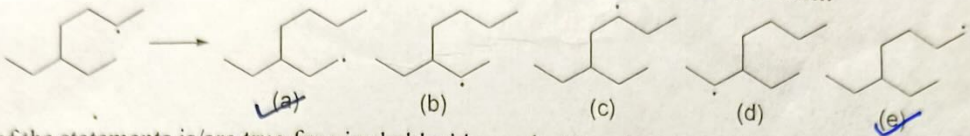
Q12. Which of the following statements is FALSE for succinic acid (SA)?
(A) SA-producing organism releases CO_2
(B) SA producing organism uses CO_2
(C) SA can be converted to tetrahydro furan
(D) SA can be converted to 1,4-butanediol

Q13. Which of the following is an example of a platform molecule?
(A) Aspartic acid (B) Acetic acid
(C) Lactic acid (D) Formic acid

Q14. The toxic and flammable components in the synthesis gas respectively are
(A) NO and H_2 (B) SO_2 and O_2
(C) NO_2 and O_2 (D) CO and H_2

Multiple Correct Answers: (tick the correct answers)

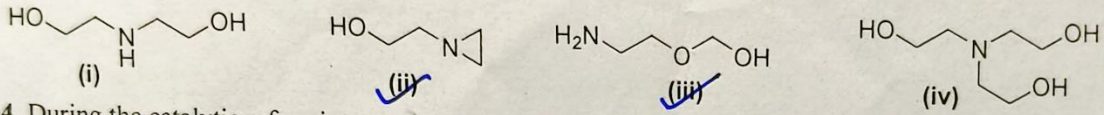
Q1. During the intramolecular chain transfer process which of the radicals will NOT form



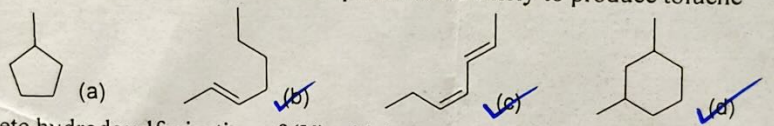
Q2. Which of the statements is/are true for vinyl chloride production via the oxychlorination process?

(A) HCl gets oxidized in an oxygen atmosphere in the presence of Cu(II) salt
(B) 1,2-dichloroethane upon heating generates ethylene
(C) This method was developed by Decon
(D) 1,2-dichloroethane upon heating generates vinylchloride

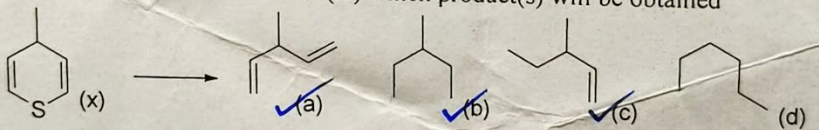
Q3. During the manufacture of ethanol-amine from ethylene oxide and ammonia which of the following side product(s) will NOT be obtained



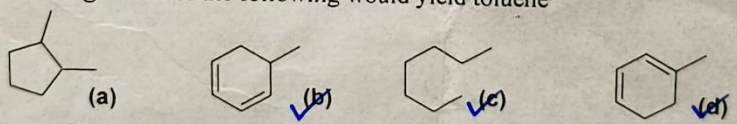
Q4. During the catalytic reforming process which compound is/are likely to produce toluene



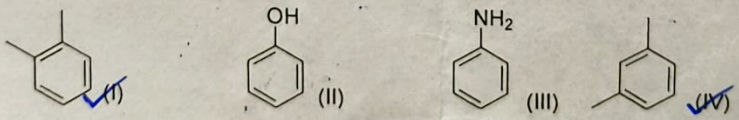
Q5. During the complete hydrodesulfurization of (X) which product(s) will be obtained



Q6. During catalytic reforming which of the following would yield toluene



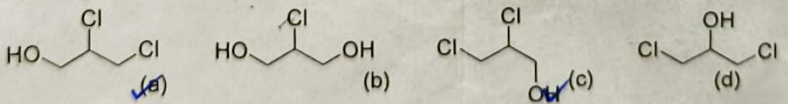
Q7. Which of the compounds can be obtained by catalytic reforming?



Q8. Which of the following takes place during the catalytic reforming process?

(i) Dehydrocyclization; (ii) Dehydroisomerization
(iii) Hydrogenation (iv) Hydroformylation

Q9. Which of the following on treatment with a base would give epichlorohydrin



Q10. Which of the following compounds would serve as efficient scrubber for CO_2?