

MARGSHREE CLASSES
CHEMISTRY NEET TEST
CHEMICAL KINETICS & HALOGENS

DATE: 12 MARCH,2021

1. A first order reaction which is 30% complete in 30 minute has a half-life period of
a) 24.2 min b) 58.2 min c) 102.2 min d) 120.2 min
2. The rate constant of a reaction is 0.69×10^{-1} and the initial concentration is 0.2 mol l^{-1} . The half period is
a) 400 b) 600 c) 800 d) 1200
3. A first order reaction is half complete in 15 minutes. How long does it need 99.9% of the reaction to be completed
a) 5 hour b) 10 hour c) 20 hour d) 7.5 hour
4. A substance "A" decomposes by the first order reaction starting with initially with $[A] = 2.00 \text{ m}$ after 200 min $[A] = 0.15 \text{ m}$. For this reaction what is the value of k
a) 1.5 b) 2.5 c) 2.0 d) 3.0
5. If a substance with half- life 3 days is taken with other place in 12 days. What amount of substance is left now?
a) $\frac{1}{4}$ b) $\frac{1}{8}$ c) $\frac{1}{16}$ d) $\frac{1}{32}$
6. The rate constant of the reaction $A \rightarrow B$ is 0.6×10^{-3} mole per second. If the concentration of A is 5 M, then concentration of B after 20 minutes is:
a) 0.36 M b) 0.72 M c) 1.08 M d) 3.60M
7. The rate of a first-order reaction is $0.04 \text{ mol L}^{-1} \text{ s}^{-1}$ at 10 seconds and $0.03 \text{ mol L}^{-1} \text{ s}^{-1}$ at 20 seconds after initiation of the reaction. The half – life period of the reaction is:
a) 54.1 s b) 24.1 s c) 34.1 s d) 44.1 s
8. If doubling the concentration of a reactant 'A' increases the rate 4 times, the rate is proportional to
a) concentration of 'A' b) square of concentration of 'A'
c) under root of the concentration of 'A' d) Cube of concentration of 'A'
9. Which one of the following statements for the order of a reaction is incorrect?

- a) order of reaction is always whole number
- b) order can be determined only experimentally
- c) order is not influenced by stoichiometric coefficient of the reactants
- d) order of reaction is sum of power to the concentration terms of reactants to express the rate of reaction
10. In a zero-order reaction for every 10° rise of temperature, the rate is doubled. If the temperature is increased from 10°C , the rate of the reaction will become
- a) 64 times b) 512 times c) 256 times d) 128 times
11. The product formed on reaction of ethyl alcohol with bleaching powder is
- a) CHCl_3 b) CCl_3CHO c) CH_3COCH_3 d) CH_3CHO
12. Acetone is mixed with bleaching powder to give
- a) chloroform b) acetaldehyde c) ethanol d) phosgene
13. The bad smelling substance formed by the action of alcoholic caustic potash on chloroform and aniline is
- a) phenyl isocyanide b) nitrobenzene c) phenyl cyanide d) phenyl isocyanate
14. when chloroform is exposed to air and sunlight, it gives
- a) carbon tetrachloride b) carbonyl chloride c) mustard gas d) lewsite
15. Among the following, the one which reacts most readily with ethanol is
- a) p-nitrobenzyl bromide b) p-chlorobenzyl bromide
- c) p-methoxybenzyl bromide d) p-methyl benzyl bromide
16. which of the following is used in fire extinguishers?
- a) CH_4 b) CHCl_3 c) CH_2Cl_2 d) CCl_4
17. 2- chlorobutane obtained by chlorination of butane, will be
- a) meso-form b) *d*-form c) racemic form d) *l*-form
18. Chloropicrin is obtained by the reaction of
- a) chlorine on picric acid b) nitric acid on chloroform

c) steam on carbon tetrachloride d) nitric acid on chlorobenzene

19. Chloroform, when kept open, is oxidized to

a) O_2 b) $COCl_2$ c) O_2, C_2 d) none of these

20. Which of the following is least reactive in a nucleophilic substitution reaction?

a) $(CH_3)_3CCl$ b) $CH_2 = CHCl$ c) CH_3CH_2Cl d) $CH_2 = CHCH_2Cl$