

JEE Main 2024 April 6 Shift 2 Answer Key

1. Among the given molecules, identify the one which undergoes nucleophilic addition reaction at fastest rate 106%4

CH, CHO
CH,CH, CHO
CH,CH,CH,CHO

Ans: A

2. Which N base is not present in DNA?

Ans: D

3. Match the List-I with List-II:

List-I	List-II
(1) CC1	(A) Antiseptic
(2) DDT	(B) Refrigerator
(3) CFC	(C) Insecticide
(4) CHI	(D) Fire extinguisher

Ans: (1) - (C) : (2) - (D)

4. Statement-I: 2,4,6-trinitrophenol is known as picric acid.
Statement-II: Picric acid can be prepared by treating conc. HNO₃ with phenol-2,4-disulphonic acid.

Options:

- A: Both Statement-I and Statement-II are false
B: Both Statement-I is false and Statement-II are true
C: Both Statement-I and Statement-II are true
D: Statement-I is true but Statement-II is false

Ans: C

5. 9.3 gram of aniline is treated with excess of NaNO₂ + HCl, then with phenol what is the weight of the orange dye product?

Ans: 0.1 Mole

6. Let A = {100, 101, 102, ••••, 700}.

Find number of numbers in set A which are neither divisible by 3 nor 4?

Ans: 200

7. If $(x) (X-1) + 7 = 25$. Find the number of solutions for X.

Ans: 18

8. R is defined on set $X = \{1, 2, \dots, 20\}$ and $R_1 = \{(x, Y) : 2x - 3y = 2\}$, $R_2 = \{(x, y) : 5x - 4y = 0\}$. If M, N represent the number of elements to be added to make R_1 & R_2 symmetric respectively. Then find the value of $M + N$.

Ans: 12

9. A company produces automobiles. It has two factories. Factory A produces 60% of the automobiles and rest is produced by the factory B. 80% of the automobiles produced by A is upto the standards and 90% of the automobiles produced by B is upto the standards. If an automobile is selected we found it as standard, the probability if it came from B is P . find $126P$.

Ans: 54

10. A bullet of mass 80g is fired with a speed 100m/s on a plywood and emerges with 40m/s the percentage of loss of kinetic energy is?

Ans: 95%