

JEE Main 2024 Question Paper April 4 Shift 1 (B.E./B.Tech)

JEE Main Physics Questions

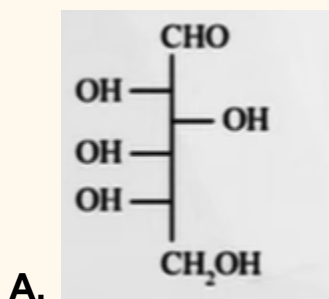
Ques 1. Five identical convex lenses are placed one after the other in close contact. The power of this arrangement is 25 D. Then, the power of one such lens is

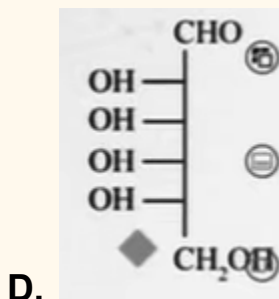
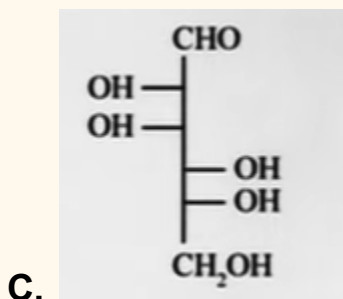
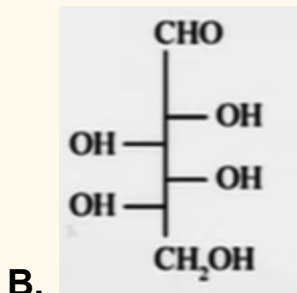
- A. 10 D
- B. 5 D
- C. 125 D
- D. 20 D

Ans. B

JEE Main Chemistry Questions

Ques 1. Which of the following is the correct structure of L- Glucose





Ans. B

Ques 2. Which of the following has a maximum dipole moment?

- A. NH_3
- B. NF_3
- C. PF_5
- D. PCl_5

Ans. A

Ques 3. If emf of hydrogen electrode at 25°C is zero in pure water, then pressure of H_2 in bar is?

- A. 10^{-14}

- B. 10^{-7}
- C. 1
- D. 0.5

Ans. A

Ques 4. For which of the following elements, only one oxidation state is possible?

- A. Sc
- B. Co
- C. Ni
- D. Fe

Ans. A

Ques 5. Among the following, decreasing order of basic strength will be:

OH^- , H^- , HCOO^- , CH_3COO^- , ^-OR

(I) (II) (III) (IV) (V)

- A. II > V > III > I > IV
- B. II > V > I > IV > III
- C. III > IV > I > V > II
- D. V > I > IV > II > III

Ans. B

Ques 6. Which of the following is the correct order of first ionization enthalpy?

- A. $\text{Be} < \text{B} < \text{O} < \text{F} < \text{N}$

- B. $B < Be < O < N < F$
C. $B < Be < N < F < O$
D. $Be < B < N < F < O$

Ans. B

JEE Main Mathematics Questions

Ques 1. If $f(x) =$

$$\begin{cases} x - 2, & 0 \leq x \leq 2 \\ -2, & -2 \leq x \leq 0 \end{cases}$$

and $h(x) = f(|x|) + |f(x)|$, $\int_0^k h(x) dx$ is equal to _____. ($k > 0$)

- A. 0
B. $k/2$
C. $2k$
D. k

Ans. A

Ques 2. Find the number of rational numbers in the expansion of $(2^{1/5} + 5^{1/3})^{15}$.

- A. 3133
B. 6131
C. 931

D. 633

Ans. A