

# TS EAMCET Question Paper 13 May 2023 Shift 1- Memory Based Question PDF

Q1- Which of the following converts acetic acid to acetyl chloride?

Q2- What is the lowest energy of the spectral line emitted by the hydrogen atoms in the Lyman series?

Q3- An organic compound containing C and H has 92.3% of carbons. Its empirical formula is

Q4- X gram carbonate burnt in the air and the weight of the solid residue formed is 28g. find the value of x

Q5- A body falls towards the earth freely, next another body is released. Find the distance between two bodies after 2 seconds ( $g = 9.8 \text{ m/s}^2$ )

Q6- A laser beam has an intensity of  $2.1 \times 10^{15} \text{ W/m}^2$ . The amplitude of the magnetic field in the beam is approximately is

Q7- A boat is sent across a river with a velocity of 8 km/hr. If the resultant velocity of the boat is 10 km/hr, then the velocity of the river is

Q8- Degree and order of the differential equation representing the family of parabolas

Q9- The number of ways of arranging the letters of the word LINEAR so that the letters N and R do not come together and E and A come together is

Q10- There are n observations and all of them are negative numbers. The ascending order of these observations is  $x_1, x_2, \dots, x_n$ . If the signs of the first term and last term in that order are changed, then the range of the data is

Q11- A bag contains 3 white and 6 red balls. Four balls are drawn at a time randomly. Then the probability of getting at least two red balls is

Q 12- In triangle ABC if BC is the hypotenuse then  $r_2 + r_1 = ?$

Q 13- The number of 3-digit odd numbers divisible by 3 that can be formed using the digits 1, 2, 3, 4, 5, 6 when repetition is not allowed is

Q14- If  $L_1$ ,  $L_2$  and  $L_3$  are the chords of contact of the three points  $(2, 0)$ ,  $(1, -2)$  and  $(4, 4)$  respectively with respect to the circle  $x^2 + y^2 = 3$ , then  $L_1$ ,  $L_2$ ,  $L_3$  are

Q15- A boat of mass 1000 Kg goes from rest to speed 20.0 m/s in 5.0 s. The water exerts a constant drag force and the acceleration of the boat is constant. If the average power required by the boat is 45000W, then the magnitude of the drag force is:

Ans- 500 N

Q 16- A cubic lattice has A atoms at the body centre, B atoms at the corners, and C atoms at half of the face centres. The formula of the lattices

Q17- : There are  $n$  observations and all of them are negative numbers. The ascending order of these observations is  $x_1, x_2, \dots, x_n$ . If the signs of the first term and last term in that order are changed, then the range of the data is

Q 18- What is the lowest energy of the spectral line emitted by the hydrogen atoms in the Lyman series?

Q 19-  $x$  gram carbonate burnt in the air and the weight of the solid residue formed is 28g. find the value of  $x$

Q 20- A body falls towards the earth freely, next another body is released. Find the distance between two bodies after 2 seconds ( $g = 9.8 \text{ m/s}^2$ )

Q 21- A laser beam has an intensity of  $2.1 \times 10^{15} \text{ W/m}^2$ . The amplitude of the magnetic field in the beam is approximately is

Q 22- An organic compound containing C and H has 92.3% of carbons. Its empirical formula is

Q 23- Which of the following converts acetic acid to acetyl chloride?

Q 24- In triangle ABC if BC is the hypotenuse then  $r_2 + r_1 = ?$

Q 25- The number of ways of arranging the letters of the word LINEAR so that the letters N and R do not come together and E and A come together is

Q 26- A bag contains 3 white and 6 red balls. Four balls are drawn at a time randomly. Then the probability of getting at least two red balls is

Q 27- The number of 3-digit odd numbers divisible by 3 that can be formed using the digits 1, 2, 3, 4, 5, 6 when repetition is not allowed is

