

# BITSAT 2023 Question Paper with Answers June 18 (Memory-based)

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Question 1. The electrons in the atom of an element which determine its chemical and electrical properties are called?

Answer. Valence electrons

Question 2. A motorcyclist is trying to jump across a path as shown by driving horizontally off a cliff A at a speed of 5 m/s. Ignore air resistance and take  $g = 10\text{m/s}^2$ . The speed with which he touches the cliff B is?

Answer.  $15\text{m/s}$

Question 3. Select the correct alternative for the blank space:  
Grains : Store :: Wood : ?

Answer. Furniture

Question 4. Frenkel defect is also known as?

Answer. Dislocation Defect

Question 5. Two capacitors, of capacitance  $C$ , are connected in series. If one of them is filled with a dielectric substance  $K$ , what is the effective capacitance?

Answer.  $(K * C) / (1 + K)$

Question 6. Saturday falls four days after today, which is the 6th of January, on what day did the 1st of December of the previous year fall?

Answer. Monday

Question 7. The freezing point of the 0.05 molal solution of non - electrolyte in water is? ( $k_f = 1.86$ )

Answer.  $-0.093^\circ\text{C}$

Question 8. Allyl phenyl ether can be prepared by heating?

Answer.  $\sim \text{CH}=\text{CH}-\text{CH}_2-\text{Br} + \text{C}_6\text{H}_5\text{ONa}$

Question 9. The circumcenter of the triangle formed by the pair of lines,  $xy+2(x+y)+4=0$  and straight line  $x+y+2=0$  is?

Answer.  $(-2,-2)$

Question 10. Viscosity is a property of?

Answer. fluids

Question 11. Length of tangent from  $(3,4)$  to  $x^2+y^2 = 9$ ?

Question 12. Identify the odd one out:  
65,51,78,104