





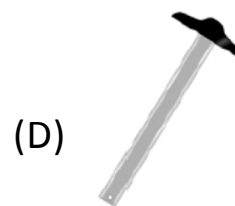
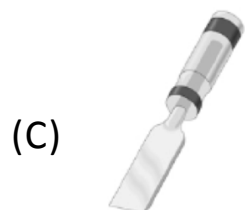
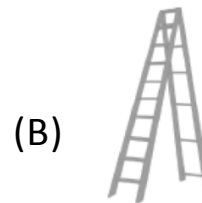


9. A rectangular coil of area  $A$ , of 'n' turns carrying a current  $I$  is placed in a magnetic field  $B$ . When is the torque on the coil doubled ?
- (A) Both  $A$  and  $I$  are doubled.
  - (B) Both  $A$  and  $B$  are doubled.
  - (C) Only  $A$  is doubled.
  - (D) Only  $n$  is halved.
10. Which of the following are usually preferred in the making of thermistors?
- (A) Metal oxides with high temperature coefficient of resistivity.
  - (B) Semiconducting materials having low temperature coefficient of resistivity.
  - (C) Metals with low temperature coefficient of resistivity.
  - (D) Metals with high temperature coefficient of resistivity.

11. The formation of cyanohydrin from a ketone is an example of
- (A) Electrophilic additon
  - (B) Nucleophilic addition
  - (C) Nucleophilic substitution
  - (D) Electrophilic substitution.
12. Which of the following is the ideal condition for the manufacture of  $H_2SO_4$  by contact process ?
- (A) Low temperature, high pressure and high concentration of reactants.
  - (B) Low temperature, low concentration of reactants and low pressure.
  - (C) High temperature, high pressure and high concentration of reactants.
  - (D) Low temperature, low pressure and high concentration of reactants.
13. To what does the molecular weight of benzoic acid in benzene as determined by depression in freezing point method correspond ?
- (A) Ionization of benzoic acid.
  - (B) Dimerization of benzoic acid.
  - (C) Isomer of benzoic acid.
  - (D) Solvation of benzoic acid.

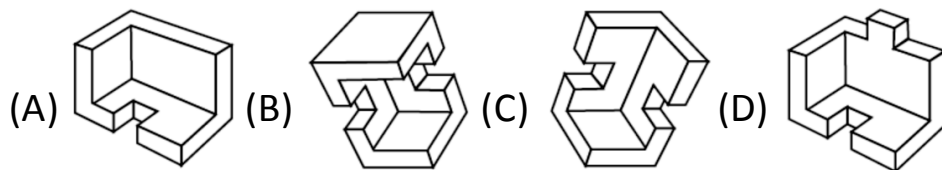
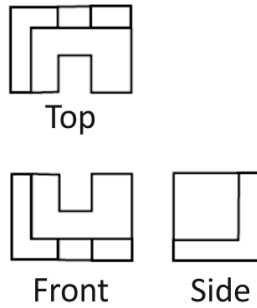
- 14. What are proteins ?**
- (A) Condensation polymers of – amino acids.
  - (B) Condensation polymers of – amino acids.
  - (C) Condensation polymers of – hydroxy acids.
  - (D) Condensation polymers of – hydroxy acids.
- 15. Why are amorphous solids considered to be super cooled liquids ?**
- (A) As they melt sharply at their melting points.
  - (B) As they exist in a solid state.
  - (C) As they soften on heating.
  - (D) As long range order is absent in them.

16. Recognize the tool in the question and choose the most closely related tool or object from the given choices.

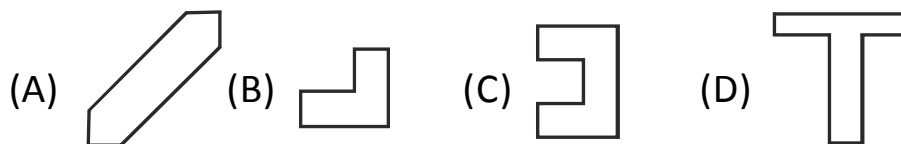
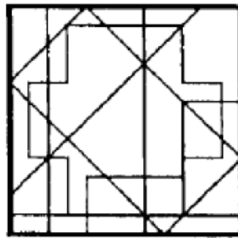


17. You are interviewed for a new job. Which of the following questions is most important to you ?
- (A) Opportunities for promotions.
  - (B) Remuneration you will be paid.
  - (C) Scope to develop your ideas and use them to improve the working of the organisation.
  - (D) All the above are equally important.

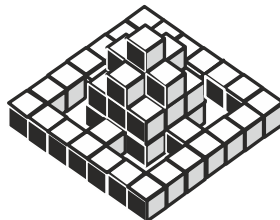
18. Identify the 3-dimensional object from the given three views.



19. The hidden figure in block 1 is



20. Count the number of blocks in the given figure.



- (A) 50      (B) 51      (C) 52      (D) 53