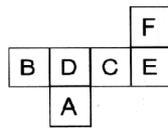
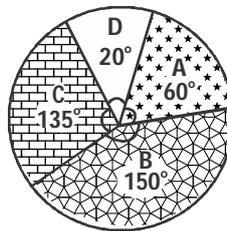


1 → Which one of the following cubes can be formed by the net given ?



- (A) (B) (C) (D)

2 → The table shows the frequency distribution of grades obtained by 120 students. The data is represented in the following pie chart.



Grade	A	B	C	D
Frequency	20	50	45	5

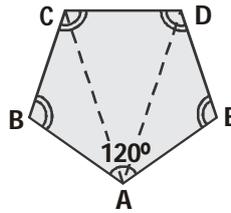
Which sector is labelled incorrectly ?

- (A) A (B) B  
(C) C (D) D

3 → What is the value of 'x' if  $\frac{a^x}{a^y} = a^{10}$  and  $(a^y)^3 = a^x$  for  $a > 1$  ?

- (A) 25 (B) 5 (C) 20 (D) 15

- 4 Four of the angles of a pentagon are of equal size. The remaining angle is  $120^\circ$ .



Find the value of each of the equal angles.

- (A)  $210^\circ$  (B)  $110^\circ$  (C)  $540^\circ$  (D)  $105^\circ$
- 5 If  $x$  and  $y$  are positive integers with  $x > y$  and  $x + xy = 391$ , what is the value of  $x + y$  ?
- (A) 392 (B) 39 (C) 31 (D) 40

- 6 Friction is NOT useful at all between the
- (A) tyres on cars and the ground.  
 (B) sports shoes and the ground.  
 (C) parts in a machine.  
 (D) brakes and the wheels on cars.
- 7 A ball is cut into two halves. On the outer surface of one half of the ball, a shiny aluminium foil is pasted. A candle placed in front of this shiny surface forms an image which is
- (A) virtual and smaller in size.  
 (B) real and smaller in size.  
 (C) virtual and bigger in size.  
 (D) real and bigger in size.

8 An object is negatively charged because it contains

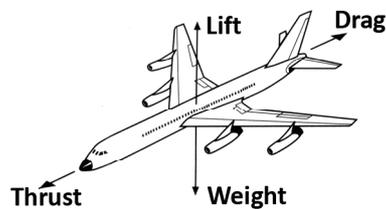
- (A) only electrons.
- (B) only protons.
- (C) more electrons than protons.
- (D) more protons than electrons.

9 Which of these are forces ?

- |             |              |
|-------------|--------------|
| 1. Friction | 2. Magnetism |
| 3. Mass     | 4. Weight    |

- (A) 1, 2 and 3 only
- (B) 1, 2 and 4 only
- (C) 2, 3 and 4 only
- (D) 1, 2, 3 and 4

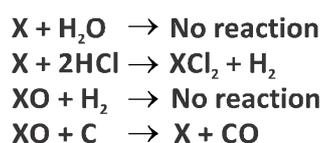
10 When an airplane flies at a constant speed and height above the ground, which statement is true about the forces acting on the airplane ?



- (A) The thrust is equal to the drag.
- (B) The lift is equal to the weight.
- (C) The lift is more than the weight.
- (D) Both (A) and (B)



The reaction of metal X and its compounds are as follows.

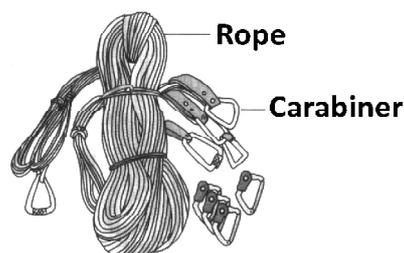


Identify metal X.

- (A) Zn (B) Mg  
(C) Pb (D) Cu



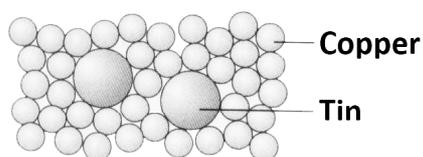
The figure given below shows some of the gear used by rock climbers.



Identify the most suitable properties required in the making of the rope and carabiner.

	Rope	Carabiner
(A)	Soft and flexible	Hard and light
(B)	Strong and flexible	Hard and strong
(C)	Hard and waterproof	Light and strong
(D)	Hard and strong	Light and flexible

- 13 Styrofoam cup is used to serve hot tea or coffee because it is
- (A) a good conductor of heat.
  - (B) a poor conductor of heat.
  - (C) very flexible in nature.
  - (D) easy to clean.
- 14 Different varieties of coal differ in their
- (A) moisture.
  - (B) volatile nature.
  - (C) carbon content.
  - (D) number of hydrogen atoms.
- 15 The figure given below shows the structure of a material.

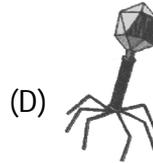
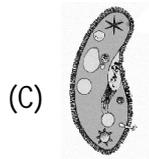
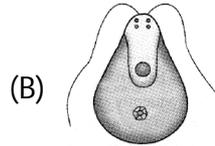
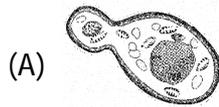


The material shown is

- (A) bronze.
- (B) pewter.
- (C) brass.
- (D) duralumin.

- 16 Which set represents the composition of female destined zygote in human beings ?
- (A)  $22 + X$ .
  - (B)  $44 + XY$ .
  - (C)  $33 + Y$ .
  - (D)  $44 + XX$ .

17 Choose an aquatic photosynthetic organism.



18 Which of the following match is correct ?

	Disease	Pathogen
(A)	Typhoid	Fungi
(B)	Malaria	Plasmodium
(C)	Sleeping sickness	Bacteria
(D)	Cholera	Virus

19 Sandy soil is not good for plants because it

- (A) cannot hold water.
- (B) has poor aeration.
- (C) contain more minerals.
- (D) has poor drainage.

20 Which of the following sequence is in the correct order ?

- (A) Zygote → Embryo → Foetus → Baby
- (B) Zygote → Embryo → Baby → Foetus
- (C) Embryo → Zygote → Baby → Foetus
- (D) Foetus → Zygote → Embryo → Baby

21 → **What protects earth from the Ultraviolet radiation ?**

- (A) Ozone layer                      (B) Atmosphere  
(C) Oxygen                              (D) Sun

22 → **The given logo belongs to which company ?**



- (A) Intel                                      (B) Volvo  
(C) Airtel                                      (D) Vodafone

23 → **Who invented Radio ?**

- (A) Guglielmo Marconi              (B) Graham Bell  
(C) J.L. Baird                              (D) Benjamin Franklin

24 → **What does the acronym KFC stand for ?**

- (A) Kansas Fried Chicken              (B) Kentucky Fried Chicken  
(C) Kansas Food Court                  (D) Kentucky Food & Chicken

25 → **Where is the headquarter of International Olympic committee located ?**

- (A) French                                      (B) Switzerland  
(C) USA    (D) England

