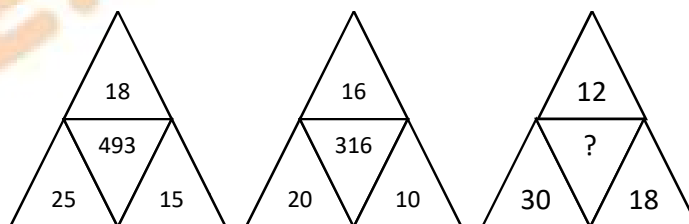


SAMPLE PAPER- 1

REASONING

1. In a certain language if TRANSPORT is coded as PATROSNRT, then WRESTLING is coded as
 - a. HBATSWOMF
 - b. GIRLNSTEW
 - c. SNLAWRIGC
 - d. RILWKICPE
2. Introducing her husband, a woman says, "His wife is the only daughter of my father." How is man related to this woman?
 - a. Son-in law
 - b. Husband
 - c. Brother
 - d. Son
3. Ravi walked 25m towards East. Then he turned to his right and walked 20m and again turned to his right and walked 25m. Then, he turned to his left and walked 10m. What direction and how far is he from the starting point?
 - a. North, 35m
 - b. North, 30m
 - c. South, 30m
 - d. South, 35m
4. Find the missing number if the same rule is applied in all three figures



- a. 680
- b. 598
- c. 652
- d. 581

5. Which of the following interchange will make the given equation true?

$$66 - 3 + 11 \div 13 \times 1 = 230$$

- and \times , \div and +
- and +, 66 and 11
- + and \div , 11 and 13
- + and \times , \div and –

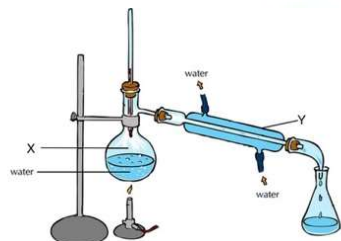
SCIENCE

6. Match the following from column 1 and 2 and choose the correct option

(i) Toxic	P. Compost
(ii) Plastic bag	Q. Petrol
(iii) Sewage	R. Paper
(iv) Recycle	S. Non-biodegradable

- i-Q, ii-P, iii-S, iv-R
- i-Q, ii-S, iii-P, iv-R
- i-S, ii-R, iii-P, iv-Q
- i-R, ii-Q, iii-P, iv-S

7.



Identify X and Y in the above diagram.

- X- Flat bottom flask, Y- condenser
- X- flat bottom flask, Y- fractionating column
- X- Round bottom flask, Y- condenser
- X- Round bottom flask, Y- fractionating column

8. We all know that it is hazardous to live near landfills. Which of the following is not true for landfills-

- Landfills produce methane gas
- Landfills produce helium gas
- Landfills produce carbon dioxide gas
- Landfills catch fire

9. Salt obtained from sea water contains impurities. This salt is purified by
- Evaporation
 - Crystallisation
 - Hand picking
 - Distillation
10. Crystallization is an excellent method of purification. Precautions should be taken while doing the process otherwise perfect crystals will not be found. During crystallization the clear solution obtained after filtration is heated till
- a saturated solution is obtained
 - the volume of the solution is reduced to half
 - the solution starts boiling
 - the colour of the solution changes
11. Hazardous waste material must be transported away from the cities as it can be toxic for the people living in that area. Which form of shipment is common for transport of hazardous waste ?
- Rail
 - Inland water
 - Road
 - Air
12. Tincture of iodine has antiseptic properties. This solution is made by dissolving
- iodine in potassium iodide
 - Iodine in Vaseline
 - Iodine in water
 - Iodine in alcohol

13.



Identify the above process of separation by using the correct name

- Fly ash method
- Winnowing method
- Fly husk method
- Separating method

14. Which of the following can be recycled many times?

- a. Wood 
- b. Aluminium 
- c. Plastic 
- d. Organic material 

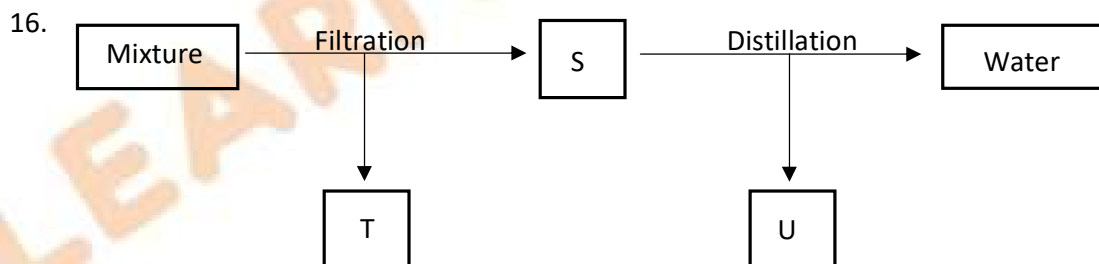
15. Read the following assertion and its reasoning and choose the correct option.

Assertion (A)- Non-biodegradable pollutants are very harmful.

Reason (R)- Non-biodegradable pollutants accumulate in our environment.

- a. Assertion and Reason both are correct, and the reason is the correct explanation of the assertion.
- b. Assertion and Reason both are correct, but the reason is not the correct explanation of the assertion.
- c. Assertion is correct and the reason is wrong.
- d. Assertion is wrong but the reason is correct.

ACHIEVER'S SECTION



In the above flowchart, what can the mixture be?

- a. Iron filing, glass, water
- b. Hydrogen, chalk powder, water
- c. Sand, methyl alcohol, water
- d. Chalk powder, sand, methyl alcohol

17. A sample of water collected from the river was found to be acidic in nature. There were several factories on the bank of the river that were discharging effluents into the water. The effluents of which one of the following factories is the most likely reason for making the water acidic?

- a. Soap and detergent factory
- b. Lead battery manufacturing factory
- c. Plastic cup manufacturing factory
- d. Alcohol factory

18. Some substances like camphor and ammonium chloride, on heating change directly from a solid state to the vapor state, without going through the liquid stage.

Ammonium chloride and salt can be separated by the process of-

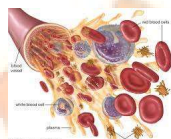
- a. Dissolving a in water
- b. Filtration
- c. Titration
- d. Sublimation

19. Vinyl Chloride contains dangerous chemical additives such as phthalates, heavy metals and organometallic compounds which are very toxic. These toxins can leach out in the air over time.

Vinyl Chloride is used in the manufacture of which one of the following

- a. Agricultural fertilizers and chemicals
- b. Plastics
- c. Storage of aquatic food
- d. Glass

20.



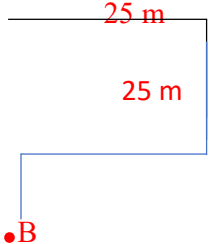
Which one of the following method is used for separating the components of blood ?

- a. Filtration
- b. Sieving
- c. Centrifugation
- d. Fractional distillation

ANSWERS

1-b. Same alphabets are rearranged

2-b. The only daughter of the woman's father is the daughter herself.

3-c A.  A is the starting and B is the end point.
 $AB = 20\text{m} + 10\text{ m} = 30\text{ m}$
 Hence Aman travels 30 m South from the starting point.

4-c. $(25 \times 15) + 18 + 100 = 493$
 $(20 \times 10) + 16 + 100 = 316$
 $(30 \times 18) + 12 + 100 = 652$

5-d. After interchanging + and \times , \div and $-$ we get
 $66 \div 3 \times 11 - 13 + 1 = 22 \times 11 - 13 + 1 = 242 - 13 + 1 = 230$

6-b

7-c

8-b. About 50% of the gases produced by the landfills is methane, about 40% is carbon dioxide and the rest on nitrogen hydrogen ammonia oxygen etc. Helium is a noble gas and is found in the stars.

9-b

10-a

11-c. Road vehicles can gain easy access to the industrial sites.

12-d

13-b

14-b. Mining of new aluminium is very expensive so it is recycled frequently.

15-a

16-c

17-b

18-d

19-b

20-c

LEARN  TEST