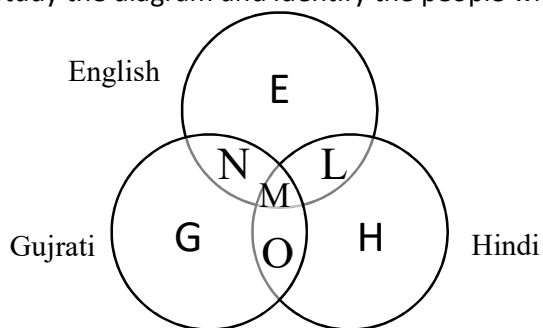


SAMPLE PAPER- 1

Logical reasoning

1. If 'A-B' means that A is the son of B, 'A÷B' means that A is the daughter of B and 'AxB' means that A is the sister of B, then how is C related to F in the relationship C-DxE÷F?
a. Brother
b. Son
c. Grandson
d. **Sister**
2. Sahil and Raghav are sitting in a row with other students of class VIII. In the row, Sahil's position is 10th from the left, while Raghav's position is 20th from the right. Both of them interchange their positions and Raghav becomes 23rd from the right. How many students are there in the row?
a. 33
b. 44
c. 42
d. 32
3. Choose the correct mirror image of COLONIAL from the following options
a. JAINOJOC
b. COGONIVT
c. 7VINOTOC
d. LAINOLOC
4. FI is related to LO in the same way as PT is related to
a. WZ
b. VZ
c. VY
d. UX
5. Study the diagram and identify the people who can speak only one language



- a. G+H+E
- b. L+M+O
- c. M+H+E

d. $M+O+G$

SCIENCE

6. Metals like sodium react with water to give a solution which turns
- Blue litmus red
 - Phenolphthalein pink
 - China rose solution to dark pink
 - Methyl orange red
7. Some metal oxides are amphoteric in nature i.e. they have acidic as well as basic properties and hence form amphoteric oxides.
Which metal forms an amphoteric oxide?
- Iron
 - Copper
 - Sodium
 - Aluminium

8. Which if the following options is correct for the following table?

A. Metalloid	1. Electric wires
B. Sodium chloride	2. Non-metals
C. Aluminium	3. Table salt
D. Brittle	4. Boron

- A-4, B-3, C-2, D-1
 - A-4, B-3, C-1, D-2
 - A-3, B-4, C-1, D-2
 - A-3, B-2, C-4, D-1
9. Marble reacts with HCl to give __i__ gas, whereas Zinc reacts with HCl to give __ii__ gas.
The gas i and ii respectively are
- H_2, CO_2
 - CO_2, H_2
 - O_2, H_2
 - H_2, O_2
10. Read the following statements and answer the question
- Moderate ignition temperature
 - Ignition temperature
 - Gaseous state
 - High calorific value
 - Moderate calorific value
 - Solid state

For an ideal fuel, the best conditions are-

- a. ii, iii, iv
- b. ii, iii, vi
- c. i, iii, iv
- d. i, iv, vi

11. The fuel used in gas pipelines in homes is

- a. Petroleum gas
- b. Coal gas
- c. Natural gas
- d. Synthetic gas

12. Assertion 'A'- LPG is a better fuel than coal.

Reason 'R'- LPG is obtained by the fractional distillation of petroleum.

- a. Both 'A' and 'R' are correct, and R is the correct reason for A
- b. Both 'A' and 'R' are correct, but R is not the correct reason for A
- c. A is correct but R is wrong
- d. A is wrong but R is correct

13.



Onion is often used as an olfactory indicator for visually impaired people.

In which of the following solutions the pungent odour of onion will not be observed.

- a. Brine
- b. Vinegar
- c. Dilute HCl solution
- d. NaOH solution

14. Combustion is the burning of a substance in oxygen.

Which of the following statements are correct?

- i. LPG is a non-flammable substance
- ii. On burning, charcoal does not produce a flame
- iii. Sulphur is a non-combustible non-metal
- iv. Combustion of phosphorus is an example of rapid combustion

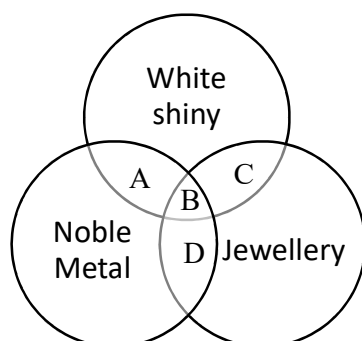
- a. i and ii
- b. ii and iii
- c. ii and iv
- d. i and iv

15. Global warming causes-

- i. Drought
 - ii. Floods
 - iii. Forest fires
- a. Only i
 - b. ii and iii
 - c. Only iii
 - d. i, ii, iii

ACHIEVER'S SECTION

16. Identify A, B, C, and D from the following diagram



- a. A- Mercury, B- Silver, C- Diamond, D- Gold
 - b. A-silver, B- gold, C- Diamond, D- Mercury
 - c. A- Diamond, B- Gold, C- Mercury, D- Silver
 - d. A- Diamond, B- Gold, C- Gold, D- Silver
17. Elements can be found in the form of solids, liquids or gases in nature.
Which of the following element is liquid at room temperature?
- a. Chlorine
 - b. Bromine
 - c. Iodine
 - d. Iron

18.



Assertion 'A'- We can boil water in a paper cup.

Reason 'R'- The paper cup has a very thin mesh of metal which prevents it from burning.

- a. Assertion and reason both are correct and the reason is the correct reason for the assertion.

- b. Assertion and reason both are correct and the reason is not the correct reason for the assertion.
- c. Assertion is correct and the reason is wrong statement.
- d. Assertion is wrong and the reason is the correct.

19.



Petrol, in a fully filled closed tank of petrol, can catch fire due to an electric spark by the electrodes present in the tank. Choose the correct option

- a. The above statement is true
- b. The above statement is false
- c. Cannot be determined as the information is incomplete.
- d. Petrol is not inflammable

20. Study the table given below and select the appropriate option.

Sample	Physical state of the sample at 40°C	Conductor of heat	sonorous
1	Solid	good	yes
2	solid	poor	yes
3	liquid	poor	no
4	liquid	good	yes

- a. 1-Zn, 2-Pb, 3-molten Fe, 4-H₂O
- b. 1-Zn, 2-Cu, 3- Ga, 4-H₂O
- c. 1-Fe, 2-Cu, 3-Hg, 4-molten Fe
- d. 1-Fe, 2-Pb, 3-Hg, 4-Ga

ANSWERS

1-c

$C \rightarrow D \times E \div F$

Son. Sister. Daughter

So E is the daughter of F, D is the sister of E, so D is also the daughter of F, whereas C is the son of D. Therefore, the boy D is the grandson of F.

2-d

The 10th position from the left is the same as 23rd position from the right. Hence $23 + 9 = 32$.

3-a

COLONIAL  L A I H O J O C

4-b

Corresponding letters are obtained by moving six places forward in the alphabetical order.

5-a

People who speak English=E, who speak Hindi=H, who speak Gujarati=G.

Hence $G+H+E$

6-b

Metals with water form Hydroxides which are basic in nature, thus turning phenolphthalein pink.

7-d

8-b

9-b

Marble is CaCO_3 .

10-c

11-c

12-b

Both the statements 'A' and 'R' are correct but LPG is a better fuel as gaseous fuels do not leave residue and have higher calorific value.

13-d

Olfactory indicators (Onion) lose their smell in bases.

14-c

Substances which vapourise on burning produce flame..

15-d

16-a

17-b

Bromine is the only nonmetal which is liquid. Iron is a metal.

18-c

The ignition temperature of paper cup is around 230°C where the water boils at 100°C .

19-b

Fully filled tank will not have oxygen to support combustion.

20-d

Pb and Hg are poor conductors of heat, Hg being a liquid is non sonorous,