# 4.LANGUAGE OF CHEMISTRY - NAMES OF SYMBOLS SOLUTIONS

# **TEACHING TASK**

1. Symbol of Mendelevium is

A)No B)Md C)Mn

Solution:Mendelevium (atomic number 101) has the symbol Md, named after Dmitri Mendeleev.

D)Me

#### Answer:B

2. The name of 'C' is

A)Calcium B)Cadmium C)Carbon D)Chromium Solution:The symbol C stands for Carbon (atomic number 6).

#### Answer:C

3. Latin name of Iron:

A)Cuprum B)Wolfram C)Stibium D)Ferrum Solution:Iron's symbol Fe comes from its Latin name Ferrum.

#### Answer:D

4. Berkelium is named after which city?

A)America B)Poland C)City of Berkely D)None

Solution:Berkelium (Bk, atomic number 97) is named after Berkeley, California, where it was discovered.

#### Answer:C

5. Latin name of Mercury is....

A)Plumbum B)Hydragyrum C)Plumbum C)Aurum

Solution:Mercury's symbol Hg comes from its Latin name Hydrargyrum (meaning "liquid silver").

#### Answer:B

6. Curium is named after scientist......

A)Mendeleev B)Alfred Nobel C)Madam Curie D)None

Solution:Curium (Cm, atomic number 96) honors Marie Curie, the Nobel Prize-winning physicist/chemist.

#### Answer:C

7. Pd stands for

A)Platinum B)Palladium C)Stibium D)Wolfram Solution:Pd is the symbol for Palladium (atomic number 46), named after the asteroid Pallas.

### Answer:B

8. The element is named after the name of country is

A)Curium B)Fermium C)Silver D)Ruthenium

Solution:Ruthenium (Ru, atomic number 44) is named after Ruthenia, the Latin name for Russia.

#### Answer:D

9. Symbol of Cadmium is

A)Cl B)Ca C)Cd D)Cm

Solution:Cadmium (atomic number 48) has the symbol Cd, derived from its Latin name Cadmia.

#### Answer:C

10. Latin name of tin is

A)Stibium B)Stannum C)Strontium D)Ruthenium Solution:Tin's symbol Sn comes from its Latin name Stannum.

#### Answer:B

#### MULTIPLE CORRECT ANSWER TYPE

11. The elements named after their countries are

A)Berkelium B)Californium C)Curium D)Ruthenium SolutionThe elements named after countries are:

- Ruthenium (Russia))
- Berkelium (Berkeley)
- Californium (California)

### Answer:A,B,D

12. Which of the following is/are correct?

A) Sulphur-S B)Cobalt-CO

Solution: A) Sulphur - S (Correct symbol)

C) Sodium - Na (From Latin Natrium)

B) Cobalt - CO  $\rightarrow$  Wrong! Correct symbol is Co (CO is carbon monoxide).

D) Antimony - sB  $\rightarrow$  Wrong! Correct symbol is Sb (from Latin Stibium).

### Answer:A,C

# STATEMENT TYPE

13. **Statement** -I:Latin name of Antimony is Stibium.

Statement -II: Latin name of Copper is Cuprum.

Solution:Statement-I (True): The Latin name for Antimony is indeed Stibium (symbol Sb).

C)Sodium- Na

D)Antimony-sB.

Statement-II (True): The Latin name for Copper is Cuprum (symbol Cu).

Relationship: Both statements are true, but Statement-II does not explain Statement-I. They are independent facts.

1. They are independent

#### Answer:B

14. **Statement** -I: Symbol of Iron is Fe.

Statement -II: Symbol of Tungsten is T.

Solution:Statement-I (True): Iron's symbol is Fe (from Latin Ferrum).

Statement-II (False): Tungsten's symbol is W (from its German name Wolfram), not "T". **Answer:C** 

#### **COMPREHENSION TYPE**

### **Comprehension-1**:

- 15. The element Nobelium is named after the scientist
  - A)Madam Curie B)Mendeleevium
  - C)Alfred Nobel D)Enrico Fermi

Solution:Nobelium (No, atomic number 102) is named after Alfred Nobel, the founder

of the Nobel Prizes.

It was discovered in 1957 and named to honor his contributions to science and peace. **Answer:C** 

16. Latin name of 'K' is:

A)Kalium B)Katrium C)Argentum D)Aurum Solution:The symbol K for potassium comes from its Latin name Kalium.

#### Answer:A

17. Latin name of Gold

A)Argentum B)Aurum C)Kalium D)Stannum Solution:Gold's symbol Au is derived from its Latin name Aurum

#### Answer:B

#### **INTEGER TYPE:**

18. Among Copper,Iron ,Silver Neon and Flourine, How many elements symbols are based on latin names?

Solution:Elements and Their Symbols:

Copper  $\rightarrow$  Symbol Cu (from Latin Cuprum)

Iron  $\rightarrow$  Symbol Fe (from Latin Ferrum)

Silver  $\rightarrow$  Symbol Ag (from Latin Argentum)

Neon  $\rightarrow$  Symbol Ne (from Greek Neos, not Latin)

Fluorine  $\rightarrow$  Symbol F (from Latin Fluere, but the symbol is based on the English name).

**COLUMN-II** 3.Stannum

1.Wolfram

2.Poland

5. Mendeleev

#### Answer:3

# MATRIX MATCH TYPE:

19. Solution:

#### COLUMN-I

A. Tin B. Tungsten C.Polonium D.Mendeleevium

#### **Answer:A-3,B-1,C-2,D-5** 20. **Solution:**

# COLUMN-I

A.Hydragyrum B. Plutonium

C. Fermium

- COLUMN-II
- 2

#### 4.Mercury 3.Pluto

- O Englise E
- 2.Enrico Fermi
- 1.Germany

D. Germanium Answer:A-4,B-3,C-2,D-1

# LEARNERS TASK

	CONCEP	TUAL UNDERSTA	NDING QUESTIO	NS (CUQ's)
1.	Latin name of tun	-		
	A)Wolfram	B)Stibium	· ·	
	ution:Tungsten's sy	mbol W comes from	n its German nam	e Wolfram.
_	swer:A			
2.	Symbol of Curium			
<b>a</b> 1	A)Cu	B)Ci	C)Cm	D)Cd
	Pierre Curie.	nc number 96) ha	s the symbol Cm	, named after Marie and
Ans	swer:C			
3.	Symbol of lead			
	A)Pb	B)W	C)Cd	D)Na
	ution:Lead's symbol	Pb comes from its	Latin name Plum	bum.
	swer:A			
4.		ver in the periodic t		D) I .
<b>a</b> 1	A)Ag	B) Au	C) Al	D) Li
	ution:Silver's symbo	of Ag comes from its	s Latin name Arge	entum
	swer:A	6 (1 1 (		
5.		of the element		
Cal		B)Cadmium		D)Chlorine
	ution:Ca is the sym swer:A	bol lor Calcium Jau	Sinc number 20).	
<b>An</b> : 6.		ed after the name o	f 'Amorico' is	
0.		B)Amerium		D)Ameritium
Sol	,			the continent America.
	swer:C	n, atomic number	50) is named and	oule continent America.
7.	Symbol of Gold is			
	A)Ag	B)AU	C)Au	D)Go
Sol	ution:Gold's symbol	· ·	,	
_	swer:C		Butan numo marta	
8.	The element name	ed after the name o	f Enrico Fermi is	
	A)Flourine	B)Einsteinium		D)Francium
Sol	ution:Fermium (Fm,	,	,	,
	swer:C		, 10	
9.	The element name	ed after the name o	f planet is:	
	A)Carbon	B)Americium	C)Einsteiniur	n D)Neptunium
Sol	ution:Neptunium (N	p, atomic number	93) is named after	r the planet Neptune.
Ans	swer:D			
10.	Symbol of Germar	nium is		
	A)G	B)Gm	C)Ge	D)gE
Sol	ution:Germanium (a	atomic number 32)	has the symbol G	e.
Ans	swer:C			

# JEE MAIN LEVEL QUESTIONS

1.	Latin name of Antimony is A)Stibium B)Wolfram C)	Stannum	D)Plumbum.						
Solı	ution:Antimony's symbol Sb comes from its	Latin name Stibiu	ım.						
Ans	swer:A								
2.	Latin name of Copper is A) Carbon B)Cuprum	C)Calcium	D)Cobalt						
Sol	olution:Copper's symbol Cu is derived from Cuprum.								
	swer:B	api ann.							
3.									
	A)B B)be	C)Be	D)By						
Solu	ution:Beryllium's symbol is Be (first letter ca cal symbols).	'	, .						
Ans	swer:C								
4.	Symbol of Barium is								
	A)Br B)Ba	C)Bo	D)Be						
Solı	ution:Barium's symbol is Ba.								
Ans	swer:B								
5.	Latin name of Silver is								
	A)Natrium B)Cuprum	C)Stannum	D)Argentum						
Solı	ution:Silver's symbol Ag comes from Argenta	ım.							
Ans	swer:D								
6.	Symbol of sodium is								
	A)S B)Na Educational On	C)Se	D)Si						
	ution:Sodium's symbol Na comes from its La	tin name Natrium	1.						
Ans	swer:B								
7.	A symbol represents short form of an								
	A)Compound B)Element	C)Mixture	D)Radical						
	ution:Chemical symbols represent elements								
Ans	swer:B								
8.	The elements named after latin names are		D) 411						
<b>G</b> 1	A)Sodium B)Potassium	C)Lead	D)All						
Sol	ution:Sodium (Na from Natrium), Potassium Plumbum) all have Latin-derived symbols	i (K from Kalium),	and Lead (Pb from						
Ans	swer:D								
9.	Symbol of Ruthenium								
	A)Re B)Ru	C)Ra	D)Rh						
	ution:Ruthenium's symbol is Ru.								
	swer:B								
10.	Symbol of Manganese								
~ ·	A)Mg B)Ma	C)MN	D)Mn						
Solu	ution:Manganese's symbol is Mn								

#### Answer:D

# ADVANCED LEVEL QUESTIONS

#### MULTIPLE CORRECT ANSWER TYPE

11. The elements named after scientist names are: A) Mendeleevium B)Fermium C)Nobelium D)Neptunium Solution:A) Mendeleevium (Md) - Named after Dmitri Mendeleev (creator of the periodic table). B) Fermium (Fm) - Named after Enrico Fermi (nuclear physicist). C) Nobelium (No) - Named after Alfred Nobel (founder of the Nobel Prize). D) Neptunium (Np) - Named after the planet Neptune, not a scientist. Answer:A,B,C 12. The elements having symbols based their latin names are B)Manganese D)Tin A)Copper C)Iron Solution: A) Copper (Cu) - From Latin Cuprum. C) Iron (Fe) - From Latin Ferrum. D) Tin (Sn) - From Latin Stannum. B) Manganese (Mn) - Symbol derived from the English name, not Latin. Answer:A,C,D **COMPREHENSION TYPE** 13. The element named after the planet 'Uranus' is B)Neptunium A)Plutonium C)Uranium D)Polonium Solution: Uranium (U) is named after the planet Uranus. Atomic number: 92 Answer:C 14. 'Es' stands for A)Fermium B)Enrico Fermi C)Einsteinium D)Albert Einstein. Solution: Einsteinium (Es) is named after Albert Einstein. Atomic number: 99 Answer:C 15. Latin name of 'K' is: A)Kalium B)Katrium C)Argentum D)Aurum Solution: The symbol K for potassium comes from its Latin name "Kalium" Answer:A 16. Latin name of Tungsten is: A)Stibium B)Wolfram C)Plumbum D)Cuprum Solution: Tungsten's symbol is W from its German name "Wolfram" Answer:B 17. Latin name of Gold A)Argentum B)Aurum C)Kalium D)Stannum Solution:Gold's symbol Au comes from the Latin "Aurum" Answer:B

# **INTEGER TYPE:**

18. Number of elements named after planet are..... Solution: Elements named after planets: Uranium (U, 92)  $\rightarrow$  Uranus Neptunium (Np, 93)  $\rightarrow$  Neptune Plutonium (Pu, 94)  $\rightarrow$  Pluto (dwarf planet) Tellurium (Te, 52)  $\rightarrow$  Earth (from Tellus, Latin for Earth)

#### Answer:4

19 Atomic number of Sodium is ..... Solution:Sodium (Na) has atomic number 11. Its symbol Na comes from Latin Natrium.

# Answer:11

20. Sum of digits of atomic number of Copper ..... Solution:Copper (Cu) has atomic number 29. Sum of digits: 2 + 9 = 11.

#### Answer:11

21. Atomic number of Potassium is..... Solution: Potassium (K) has atomic number 19. Its symbol K comes from Latin Kalium. Answer:19

Teaching Task									
1	2	3	4	15	6	7	8	9	10
В	С	D	<b>C</b> _d	ica <b>B</b> ona	al œper	atir <b>B</b> j Sv	∕st <b>@</b> n	С	В
11	12	13	14	15	16	17	18	19	20
A,B,D	AC	B	С	С	А	В	3	3,1,2,5	4,3,2,1

#### Learners Task **CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)**

1	2	3	4	5	6	7	8	9	10
Α	С	А	А	А	С	С	С	D	С
JEE MAINS & ADVANCED LEVEL									
1	2	3	4	5	6	7	8	9	10
Α	В	С	B	D	В	В	D	B	D
11	12	13	14	15	16	17	18	19	20
ABC	ACD	С	С	А	В	В	4	11	11
<b>21</b> - 19									

