



A collage of various analytical chemistry and data visualization elements. It includes a lightbulb with a brain-like filament, a 3D pie chart, a flowchart with arrows, laboratory glassware like test tubes and flasks, a smartphone, and a computer keyboard. The background features a dark blue gradient with white confetti-like shapes.

EPEA516 ANALYTICAL SKILLS II

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Learning Outcomes



After this lecture, you will be able to

- develop understanding about the basics of number and symbol coding,
- analyze different types of number and symbol coding,
- solve various problems relating to number and symbol coding.

Number Coding

- Numerical Codes
 - Alphabetic Letters
 - Words
 - Correlation
 - Letters - Numbers
 - Pattern

Number Coding

- If in a certain code language 'GATE' is written as '33' ,
then how will 'PHONE' be written in that language?

- $$\begin{array}{rcl} G & A & T & E \\ \downarrow & \downarrow & \downarrow & \downarrow \\ 7 & + 1 & + 20 & + 5 \end{array} - = 33$$
- $$7 + 1 + 20 + 5 = 33$$

- $$\begin{array}{rcl} P & H & O & N & E \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 16 & + 8 & + 15 & + 14 & 5 \end{array} = 58$$
- $$16 + 8 + 15 + 14 + 5 = 58$$

Number Coding

- If G = 7 and GAP = 24, then ROCK = ?

- G = 7

- $G \quad A \quad P \quad = 24$
- $7 + 1 + 16$

- $R \quad O \quad C \quad K$
- $18 + 15 + 3 + 11 = 47$

Number Coding

- If in a certain code language 'RIGHT' is written as '1897820' then how will 'WRONG' be written in that language?

• R	I	G	H	T
• 18	9	7	8	20
• W	R	O	N	G
• 23	18	15	14	7

Number Coding

- If in a certain code language 'CREATOR' is written as '24922267129' then how will 'FIGHTER' be written in that language?

• C	R	E	A	T	O	R
• 24	9	22	26	7	12	9
• F	I	G	H	T	E	R
• 21	18	20	19	7	22	9

Number Coding

- If 'EXCEL' and 'PAINT' are coded as '93596' and '74128' respectively, then how is 'ACCEPT' coded?

• E	X	C	E	L
• 9	3	5	9	6
• P	A	I	N	T
• 7	4	1	2	8
• A	C	C	E	P
• 4	5	5	9	7
				T

Number Coding

- If 'MEET' is coded as '135520' then how is 'WOOD' coded?

- M E E T
- 13 5 5 20

- W O O D
- 23 15 15 4

Symbol Coding

- Symbols
 - Letters
 - Words
 - Correlation/Similarity
 - Rule/Pattern

Symbol Coding

- In a certain code 'GONE' is written as '\$&@#' and 'MEDAL' is written as *#%^/, then how will 'GOLD' be written in that code?

- G O N E
\$ & @ #
- M E D A L
* # % ^ /
- G O L D
\$ & / %

Symbol Coding

- In a certain code, 'RAID' is written as '%#*\$' and 'RIPE' is written as '% * @ !'. How is DEAR written up in that code?

- R A | D
- % # * \$

- R | P E
- % * @ !

- D E A R
- \$! # %

Conclusion

- Number Coding
 - Numerical Codes - Letters
- Symbol Coding
 - Symbols - Letters

Summary

- Number Coding
- Symbol Coding

That's all for now...