



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, and a smartphone displaying data. The background features a dark area with floating black circles and diamonds.

EPEA516 ANALYTICAL SKILLS II

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Learning Outcomes



After this lecture, you will be able to

- develop understanding about the basics of alphabet test,
- analyze different types of alphabet test,
- solve various problems relating to different types of alphabet test.

Alphabet Test

- Place of an alphabet/a word
- Types of Arrangement
- Arrangements of Alphabet

Types of Alphabet Test

- Alphabetical Order of Words
- Letter-word Problems
- Rule Detection
- Alphabetical Quibble

Alphabetical Order of Words

- Arranging Words in Alphabetical Order
- Words
 - Dictionary
 - Desired Place
- Knowledge
 - Dictionary Usage
 - Alphabetical Order

Alphabetical Order of Words

- Arranging Words in Alphabetical Order
 - Army, Access, Academic, Abacus
 - Abacus
 - Academic
 - Access
 - Army
 - Abacus, Academic, Access, Army

Alphabetical Order of Words

- Arrange the given words in alphabetic order of words:
- Payment, Fossil, Shark, Blue, Torture, and Apparent
- Apparent
- Blue
- Fossil
- Payment
- Shark
- Torture
- Apparent, Blue, Fossil, Payment, Shark, and Torture

Alphabetical Order of Words

- Arrange the given words in alphabetic order of words:
- Face, Client, Bee, Castle, Viper, Dazzle, and Beaker
 - Beaker and Bee
 - Castle and Client
 - Dazzle
 - Face
 - Viper
 - Beaker, Bee, Castle, Client, Dazzle, Face, and Viper

Alphabetical Order of Words

- Arrange the following words in the dictionary order:
- Chair, Cup, Coconut, Carry, Crude, Central, Carrot,
Courier, Cream, Carrier, and Cheese
- Carrier, Carrot, Carry, Central, Chair, Cheese, Coconut,
Courier, Cream, Crude, and Cup

Alphabetical Order of Words

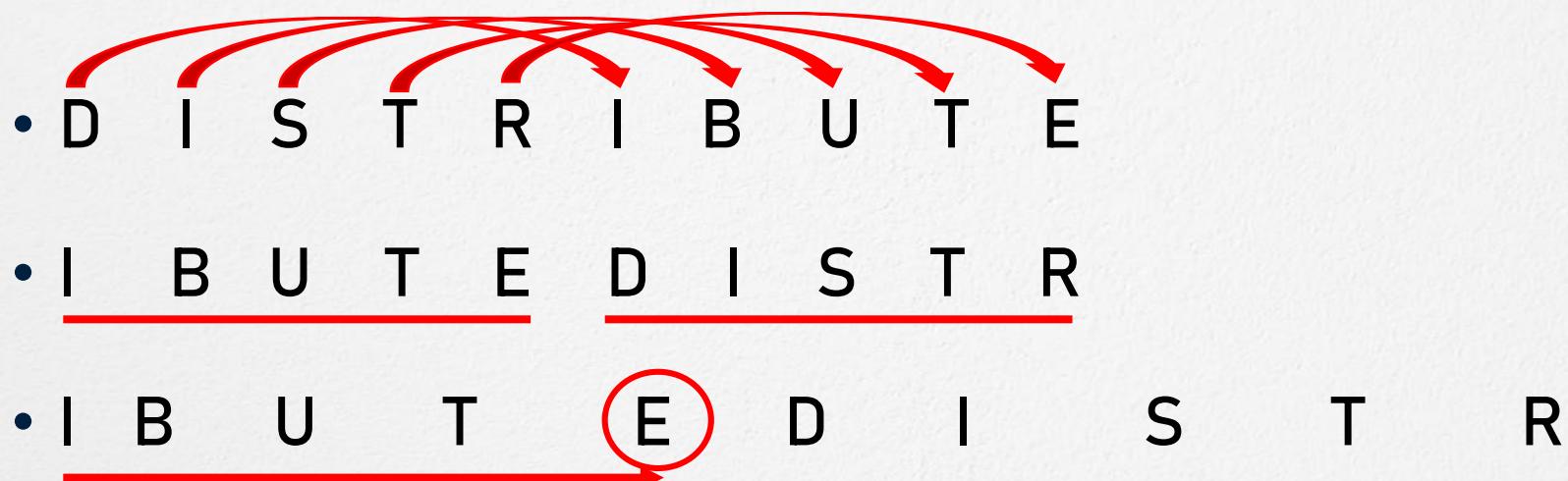
- In the following question five words are given. Find out which word will come in the middle, if all the five words are arranged alphabetically as in a dictionary.
- Chair, Carry, Crude, Central, and Carrot
- Carrot, Carry, Central, Chair, and Crude
- Central

Letter-word

- How many such letters are there in the word "BUCKET", each of which is as far away from the beginning of the word as it is from the beginning of the English Alphabet?
- ABCDEFGHIJKLMNOPQRSTUVWXYZ
- BUCKET
- C D E and C K E
- C and E

Letter-word

- If the position of the first and the sixth letters; second and seventh letters; third and eighth letter and so on in the word 'DISTRIBUTE' are interchanged, then find the fifth letter from the left in new word so formed.



Letter-word

- How many independent words can 'HEARTLESS' be divided into without changing the order of the letters and using each letter only once?
- HEARTLESS
- HE ART LESS
- HE
- ART
- LESS

Letter-word

- Which letter in the word 'SELFRIGHTEOUSNESS' does not change its position when the letters are reversed?

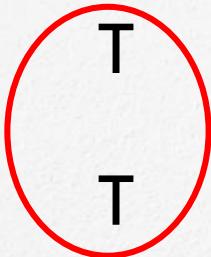
- SELFRIGHTEOUSNESS

- SELFRIGH

- EOUSNESS

- SSENSUOE

- HGIRFLES



Rule Detection

- Number of letters skipped in between adjacent letters in the series increases by one. Which of the following observe the given rule?

- AEIMQ ACFJO EHKNQ DINSX

- ABCDEFGHIJKLMNOPQRSTUVWXYZ

- +1 +2 +3 +4

- ACFJO

Rule Detection

- Select a series from the given series in which letters are not according to a general rule.

- PRTVXZ CEGIKM ZBDFHJ MORTVX

- PRTVXZ - PQRSTUVWXYZ

- CEGIKM – CDEFGHIJKLMNOP

- ZBDFHJ - ZABCDEFGHIJ

- MORTVX - MNOPQRSTUVWXYZ

Rule Detection

- Number of letters skipped in between adjacent letters in the series are consecutive even numbers. Which of the following observe this rule?

- **ADIPY**

CDFIM

DFJPX

GIMSZ

- ADIPY

- ABCDEFGHIJKLMNOPQRSTUVWXYZ

- CDFIM

- CDEFGHIJKLMNOP

- DFJPX

- DEFGHIJKLMNOPQRSTUVWXYZ

- GIMSZ

- GHijklmnopqrstuvwxyz

Rule Detection

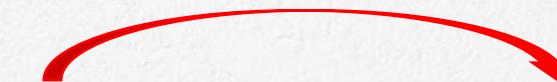
- Number of letters skipped in between adjacent letters in the series starting from behind are increased by one. Which of the following observe this rule?

- OMKIG OIGDC ONLKJ OMJFA
- OMKIG - ONMLKJIHG
- OIGDC - ONMLKJIHG**FEDC**
- ONLKJ - ON**M**LKJ
- OMJFA - ONMLKJIHG**FEDCBA**

Rule Detection

- Number of letters skipped in between adjacent letters in the series are followed by equal space. Which of the following observe this rule?

- SUXADF **RVZDHL** HKNGSW RVZDFG

- SUXADF - ABCDEFGHIJKLMNOPQRSTUVWXYZ
- RVZDHL - ABCDEFGHIJKLMNOPQRSTUVWXYZ
- HKNGSW - ABCDEFGHIJKLM NOPQRS TUVWXYZ

- RVZDFG - ABCDEFGHIJKLMNOPQRSTU VWXYZ

Alphabetical Quibble

- Alphabets
- Position of Letter – Puzzle
- Find Letter

Alphabetical Quibble

- In the following series, which letter is eight to the left of sixteenth letter from the left end?
- ABCDEFGHIJKLMNOPQRSTUVWXYZ

- ABCDEFGHIJKLMNOPQRSTUVWXYZ
- H

Alphabetical Quibble

- In the following series, which letter is eight to the right of sixteenth letter from the left end?
- ABCDEFGHIJKLMNOPQRSTUVWXYZ

- ABCDEFGHIJKLMNOPQRSTUVWXYZ
X

Alphabetical Quibble

- In the following series, which letter is tenth to the left of eighth letter from the right end?
- ABCDEFGHIJKLMNOPQRSTUVWXYZ

- ABCDEFGHIJKLMNOPQRSTUVWXYZ
 - I
- 

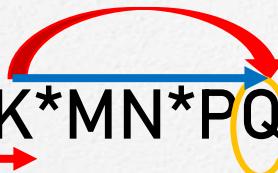
Alphabetical Quibble

- In the following series, which letter is fourth to the right of thirteenth letter from the right end?
- ABCDEFGHIJKLMNOPQRSTUVWXYZ

- ABCDEFGHIJKLMNOPQRSTUVWXYZ
 - R
- 

Alphabetical Quibble

- If in the English alphabet every third letter is replaced by the symbol (*), which of the following would be sixth letter to the right of the eleventh element from the left?
- ABCDEFGHIJKLMNOPQRSTUVWXYZ
- AB*DE*GH*JK*MN*PQ*ST*VW*YZ
- Q



Alphabetical Quibble

- How many A's are there in the following series which are immediately followed by H but not immediately preceded by D?
- DACHDAHNDGAHHAHHDVAHZAH
- DACHDAHNDGAHHAHHDVAHZAH
 - Four – A's

Conclusion

- Alphabet Test
 - Dictionary
 - Desired Place
 - Middle Word
 - Beginning of Word - Beginning of English Alphabet

Conclusion

- Alphabet Test
 - Pair of Letters
 - Inter-change Position of Letters
 - No Change in Position of Letter
 - Identify Group of Letters -Rule
 - Position of Letter – Find Letter

Summary

- Alphabet Test
 - Alphabetical Order of Words
 - Letter-word Problems
 - Rule Detection
 - Alphabetical Quibble

That's all for now...