

# The tautomeric forms of beta keto ester are..



**T. Krishna**

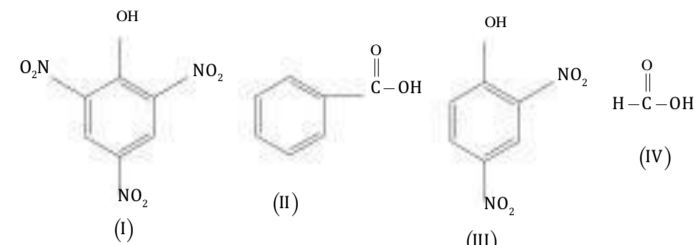
*Subject Expert,  
LEO Academy,  
Hyderabad*

## MODEL QUESTIONS

- The interaction energy of London force is inversely proportional to sixth power of the distance between two interacting particles but their magnitude depends upon
  - charge of interacting particles
  - mass of interacting particles
  - polarisability of interacting particles
  - strength of permanent dipoles in the particles
- In  $\text{Br}_3\text{O}_8$ , individual oxidation numbers of bromine atoms are
  - +6, +7, +3
  - +7, +3, +6
  - +7, +2, +7
  - +6, +4, +6
- 42 gm of iron metal reacts with excess of  $\text{HCl}$  acid at  $25^\circ\text{C}$ . The

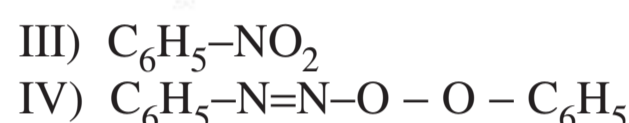
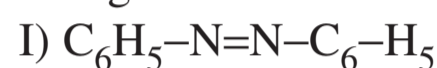
work done by the hydrogen gas is  
1) 21.86 Kcal 2) 1.86 KJ  
3) 2.86KJ 4) 3.86KJ

4. In the following compounds, the order of acidity is



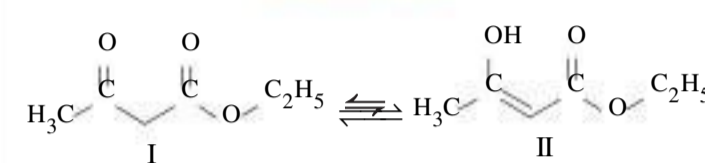
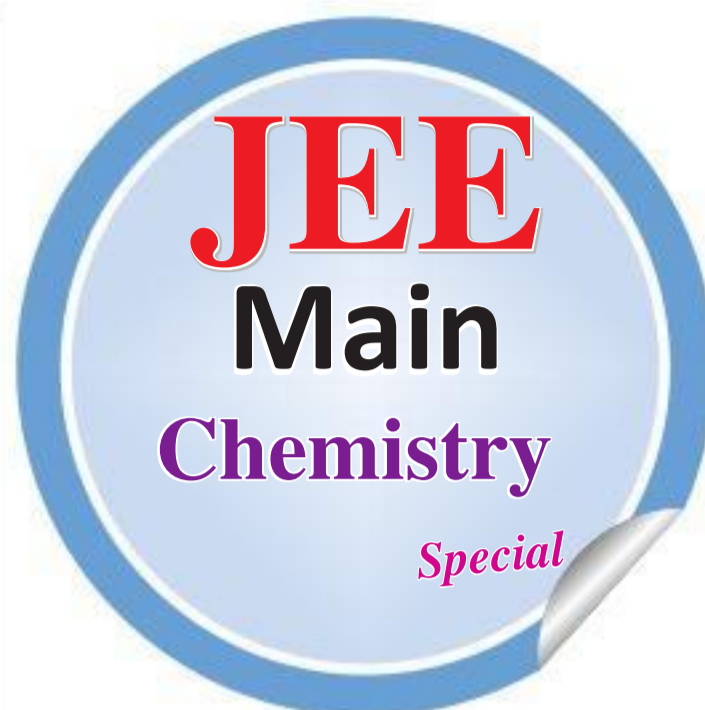
- $\text{II} > \text{IV} > \text{I} > \text{III}$
- $\text{IV} > \text{II} > \text{I} > \text{III}$
- $\text{I} > \text{IV} > \text{III} > \text{II}$
- $\text{I} > \text{II} > \text{III} > \text{IV}$

5. Kjeldahl's method cannot be used for the estimation of nitrogen in



- II and III only
- I & II only
- I, II and III only
- I, II, III and IV

6. The tautomeric forms of beta keto ester are

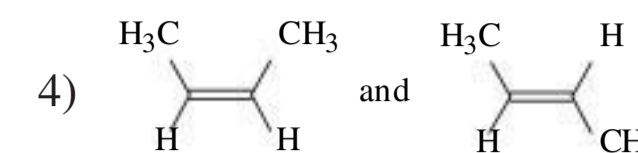
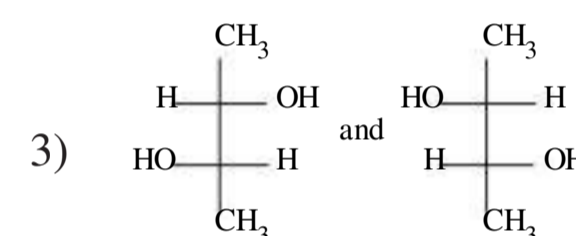
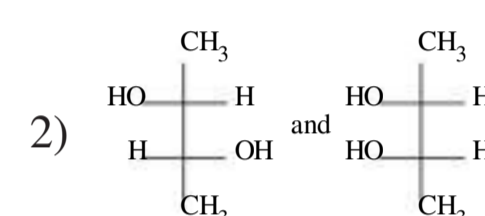
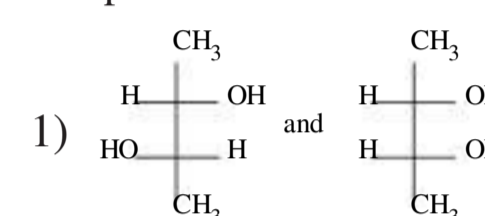


Which of the following is Not correct:

- % of keto form I increases in  $\text{H}_2\text{O}$
  - % of enol form II is less stable
  - % of enol form II increases in ether
  - % of enol form II more stable due to intramolecular H-bond
7. Which of the following statement(s) is NOT correct ?
- Ratio of wavelength of series limit of Paschen series to that

of Brackett series for H atom is  $\frac{9}{16}$

- All the photoelectrons emitted during photoelectric effect must have same kinetic energy
  - For 3p orbital, the number of radial nodes and the number of angular nodes is same and each is equal to 1
  - According to Bohr's model, frequency of revolution of an electron in an orbit  $\propto \frac{Z^2}{n^3}$
8. Which of the following pairs of compounds are NOT diastereomers?



## KEY & HINTS

- 3;
- 4;
- 2;  
 $\text{Fe} + 2\text{HCl} \rightarrow \text{FeCl}_2 + \text{H}_2$   
Work done =  $\frac{42}{56} \times 8.314 \times 298$

- 3;
- 4;  
Kjeldahl's Method cannot be used for azo compounds, nitro compounds and if N present in the ring
- 4; 7) 2;
- 3;  
Diastereomers are not mirror images of each other. Whereas enantiomers are non-superimposable mirror images.



**Ravi Kumar Merugu**

*Subject Expert*

## MODEL QUESTIONS

- In DDC how many abridged edition were released?  
1) 14 2) 15 3) 16 4) 17
- In DDC 3rd summary known as?  
1) Parameters 2) Sections  
3) Divisions 4) Parts
- UDC developed based on?  
1) RDA 2) LC  
3) DDC 4) EC
- Identify the correct sequence of indicator digit of Intra-Array phase relations as used in CC-6<sup>th</sup> Ed.  
1) tuwxyz 2) uvwxyz  
3) vwxyz 4) tuvwx
- How many canons were developed by S R Ranganathan for classification?  
1) 42 2) 43 3) 44 4) 45
- Arrange in sequence of the following subject classes according to their occurrences in the schedules of DDC-21<sup>st</sup> Ed.  
a) Journalism  
b) Java Programming  
c) Library Science  
d) Fundamentals of Computers  
1) d, b, c, a 2) d, c, b, a  
3) d, b, a, c 4) d, a, b, c
- Which of the following are the canons in Idea Plane?  
a) Characteristic b) Currency  
c) Context d) Chain  
1) (a) and (b) are correct  
2) (b) and (c) are correct  
3) (c) and (d) are correct

- (a) and (d) are correct
- What is the correct sequence of CC in literature?  
1) Language- Form-Author-Work  
2) Author-Work-Form-Language  
3) Work-Language-Form-Author  
4) Form-Work-Author-Language
- Which value refers to the quantitative value that each digit possesses inherently?  
1) Ordinal Value  
2) Semantic Value  
3) Number Value  
4) Cardinal Value
- In Colon classification 'Systems and Specials' are devised basis on...  
1) Subject device  
2) Chronological device  
3) Alphabetical device  
4) Geographical device
- The principles of 'Literary-warrant and Spatial contingency' are the principles of...  
1) Canon sequence  
2) Facet sequence  
3) Alphabetical sequence  
4) Helpful sequence
- In UDC the inter relationship between the two subjects is denoted by which of the following symbol...  
1) A Plus (+) 2) A Hyphen (-)  
3) A Colon (:) 4) A Slash (/)
- Whole-organ principle is uses to determine the sequence of...  
1) Two personality facets falling in the same round



- Two matter facets falling in the same round
- Two energy facets falling in the energy round
- Two space facets falling in the same round

14. **Assertion (A):** A scheme of classification based on analysis of subjects in to different facets and those are arranged by the prescribed postulates; and the facet terms replaced by the facet numbers.
- Reason (R):** It is known as 'Analytico-Synthesis system'. UDC is the example.
- (A) is false, but (R) is true
  - Both (A) and (R) are true
  - (A) is true, but (R) is false
  - Both (A) and (R) are false
15. **Assertion (A):** Expression of a subject in a natural language or their representation in an artificial language of ordinal numbers is termed as 'Idea Plane'.

- Reason (R):** Expression of a concept in a natural language is 'Verbal plane'
- Both (A) and (R) are true
  - (A) is true, but (R) is false
  - (A) is false, but (R) is true
  - Both (A) and (R) are false
16. In DDC 'add' instruction found at...  
1) Scheduled 2) Tables  
3) Relative Index  
4) None of the above
17. Access points for cataloguing entry in CCC?  
a) Author & Call Number  
b) Title & Edition  
c) Series and Accession Number  
d) Publication and Collation  
1) (a), (b) are correct  
2) (a) and (c) are correct  
3) (a), (b) and (c) are correct  
4) (a), (b), (c) and (d) are correct
18. How many types of 'Common Isolates'?  
1) Two times (ACI & PCI)  
2) Three times (ACI & PCI, PDI)  
3) Four times (ACI, PCI, PDI, ADI)  
4) Five times (ACI, PCI, PDI, ADI, BCI)
19. The major drawbacks of colon classification are...  
a) Mixed notation  
b) Pure notation  
c) No responsibility to update time to time after 7th edition  
d) Single notation  
1) (a) & (b) are correct  
2) (a) & (c) are correct  
3) (a) & (d) are correct

- (b) and (d) are correct
- Canons are divided into following parts...  
1) One type (Verbal plane)  
2) Two types (Idea plane and Notational plane)  
3) Three types (Idea plane, Verbal plane, Notational plane)  
4) Four types (Idea plane, Verbal plane, Notational plane and Mnemonics plane)
- Father of canons is...  
1) Melvil Dewey  
2) S R Ranganathan  
3) C A Cutter 4) F W Sayers
- ACI Common isolates are divided into...  
1) Three types (Before Personality, After Personality & After Matter)  
2) Three types (Before Matter, After Matter & After Energy)  
3) Three types (Before Energy, After Energy & After Space)  
4) Three Types (Before Space, After Space & After Time)
- Intra facet phase relations are divided into...  
1) 4 2) 5 3) 6 4) 7

## KEY

- 2 2) 2 3) 3 4) 4 5) 2  
6) 1 7) 4 8) 1 9) 4 10) 2  
11) 4 12) 3 13) 1 14) 2 15) 1  
16) 1 17) 3 18) 1 19) 2 20) 3  
21) 4 22) 4 23) 3