Pramukh Swami Science and H.D Patel Arts College, Kadi

B.Voc. Pharmaceutical Chemistry

Internal Examination Semester II

Subject: Fundamentals of Organic Chemistry **PC 211**

Time: 2 hrs | Date: 10/04/2015 | Marks: 50

Q. 1 Answer any 10 questions. (Each question carries 1 mark) [10 x 1= 10]

1. How many π electrons are present in ethyne?
2. What is the hybridization of C in methane?

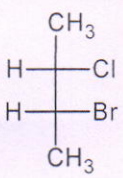
(a) sp^3

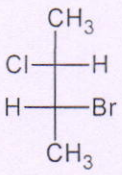
(b) sp^2

(c) sp

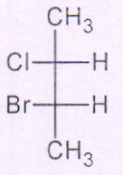
(d) none of these

3. Define antimarkonikov rule.
4. Draw the structures of chloroform and carbontetrachloride?
5. Write down the synthesis of CH_3Cl from CH_4.
6. Give the definition of stereoisomers.
7. Find out the correct enantiomers of following compound.





(I)



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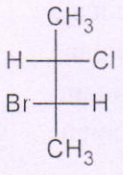


(III)

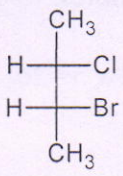
(a) (I)

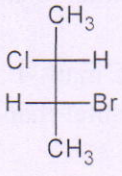
(b) (II)

(c) (III)

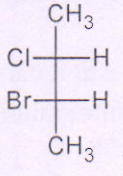
(d) (I) and (III)

8. Find out the correct distereomers of following compound.

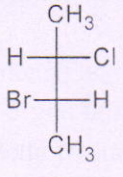




(I)



(II)



(III)

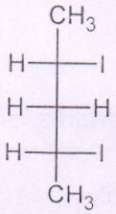
(a) (I)

(b) (II)

(c) (III)

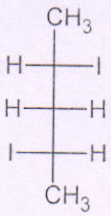
(d) (I) and (III)

9. Choose the correct name of following stereoisomer.



(a) (2S, 4R)-diiodopentane
(b) (2R, 4S)-diiodopentane
(c) (2S, 4S)-diiodopentane
(d) (2R, 4R)-diiodopentane

10. Choose the correct name of following stereoisomer.



(a) (2S, 4R)-diiodopentane
(b) (2R, 4S)-diiodopentane
(c) (2S, 4S)-diiodopentane
(d) (2R, 4R)-diiodopentane

Q.2 Answer any 4 questions. (Each question carries 5 marks) [4 x 5= 20]

1. Explain in brief stereoselective reactions with suitable examples.
2. Give any 4 methods for the formation of alkyne.
3. Define optical activity. Describe the optical activity in Allenes.
4. Explain Markonikov rule.
5. Give a short note on enantiomers and distereomers with suitable examples.

Q.3 Answer any 4 questions. (Each question carries 5 marks) [4 x 5= 20]

1. Prove that 'The bond angle in ammonia is smaller than water'.
2. Give any 4 reactions of alkene.
3. Explain in brief stereoselective reactions with suitable examples.
4. Write a short note on carbocation and carbanion with suitable examples.
5. Describe the optical activity in Spirane.