

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
Department of Chemistry
B.Sc. Part-I (Inorganic Chemistry)
Unit test -Paper-I Sem.-I

Day and Date: Monday, 15/08/2017

Total Marks: 25

Time: 11.00 to 12.00 am

Q.1. Choose the correct alternatives among the following.

5 marks

1. Magnetic quantum number accounts.....

- a) Orientation b) size c) shape d) energy

2. Atomic radius depends on

- a) number of shells b) effective nuclear charge c) Screening effect d) none of these

3.....group members are more reactive.

- a) 1 b) 2 c) 13 d) 14

4. Degenerate atomic orbital have.....

- a) different b) very low c) very high d) same

5.....is ionic compound.

- a) NaCl b) CCl₄ c) HF d) Cl₂

Q.2 Write the answers briefly (any two)

10 marks

1. What is LCAO principal. Explain the types of MOs.

2. Write a note on bonding and antibonding MOs.

3. Write a note on sp³ and sp³d hybridization

Q.3 Answer the following. (any one)

10 marks

1. Give postulates of Bohr's theory of hydrogen.

2. Discuss shapes of s, p, d, f orbitals.

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
Department of Chemistry
B.Sc. Part-I (Inorganic Chemistry)
Unit test -Paper-I Sem.-I

Day and Date: Sunday, 1/09/2017

Total Marks: 25

Time: 12.00 to 1.00 am

Q.1. Choose the correct alternatives among the following.

5 marks

1. Ionization energy is represented by symbol.....

- a) -H b) -V c) -E d) +I

2. Born Haber cycle is used to calculate.....

- a) lattice energy b) electron affinity c) heat of formation d) none of these

3. K_2S is isomorphous with.....

degree.

- a) 90 b) 72 c) 180 d) 120

4. The structure of IF_7 is.....

- a) Octahedral b) TBP c) PBP d) square planer

5. Degenerate atomic orbitals have.....

- a) different b) very low c) very high d) same

Q.2 Write the answers briefly (any two)

10 marks

2. Write a note on bonding and antibonding MOs.

3. Write a note on sp^3 and sp^3d hybridization

4. Explain the need for hybridization

Q.3 Answer the following. (any one)

10 marks

1. Give postulates of Bohr's theory of hydrogen.

2. Explain the types of molecular orbitals.

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur

Department of Chemistry

B.Sc. Part-I (Inorganic Chemistry)

Unit test -Paper-I Sem.-I

Day and Date: Monday, 11/09/2018

Total Marks: 25

Time: 12.00 to 1.00 am

Q.1. Choose the correct alternatives among the following.

5 marks

1. In SF_6 bond angle is 6. Non directional bond is

a) covalent b) ionic c) polar d) none of these

2. Ionization energy is represented by symbol.....

a) -H b) -V c) -E d) +I

3. Born haber cycle is used to calculate.....

a) lattice energy b) electron affinity c) heat of formation d) none of these

4. K_2S is isomorphic with.....

degree.

a) 90 b) 72 c) 180 d) 120

5. The structure of IF_7 is.....

a) Octahedral b) TBP c) PBP d) square planer

Q.2 Write the answers briefly (any two)

10 marks

2. Write a note on bonding and antibonding MOs.

3. Write a note on sp^3 and sp^3d hybridization

4. Explain the need for hybridization

Q.3 Answer the following. (any one)

10 marks

1. Give postulates of Bohr's theory of hydrogen.

2. Explain the types of molecular orbital.

10. Give the characteristics of ABMOs/BMOs

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
Department of Chemistry
B.Sc. Part-I (Inorganic Chemistry)
Unit test -Paper-I Sem.-I

Day and Date: Friday, 17/10/2018

Total Marks: 25

Time: 11.00 to 12.00 am

Q.1. Choose the correct alternatives among the following.

5 marks

1. K_2S is isomorphous with.....

degree. 1. In SF_6 bond angle is..... 6. Non directional bond is

a) covalent b) ionic c) polar d) none of these

2. Ionization energy is represented by symbol.....

a) -H b) -V c) -E d) +I

3. Born haber cycle is used to calculate.....

a) lattice energy b) electron affinity c) heat of formation d) none of these

a) 90 b) 72 c) 180 d) 120

4. The structure of IF_7 is.....

a) Octahedral b) TBP c) PBP d) square planer

5. The structure of IF_7 is.....

a) Octahedral b) TBP c) PBP d) square planer

Q.2 Write the answers briefly (any two)

10 marks

2. Write a note on bonding and antibonding MOs.

3. Write a note on sp^3 and sp^3d hybridization

4. Explain the need for hybridization

Q.3 Answer the following. (any one)

10 marks

1. Give postulates of Bohr's theory of hydrogen.

2. Explain the types of molecular orbital.

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
Department of Chemistry
B.Sc. Part-I (Inorganic Chemistry)
Unit test -Paper-I Sem.-I

Day and Date: Sunday, 11/09/2019

Total Marks: 25

Time: 12.00 to 1.00 am

Q.1. Choose the correct alternatives among the following.

5 marks

1. Sp hybrid orbitals aredisposed.
a) trigonally b) diagonally c) irregularly d) none of these
2. Bond order of CO is.....
a) 1 b) 2 c) 3 d) 4
3. If bond length increases, stability of molecule
a) increases b) decreases c) remain same d) none of these
4. Stable molecules have.....bond order.
a) positive b) negative c) zero d) neutral
5. MOs are
a) polycentric b) monocentric c) bicentric d) both a and b

Q.2 Write the answers briefly (any two)

10 mark

1. Explain octahedral geometry with suitable example.
2. Explain the types of molecular orbital.
3. Give the characteristics of ABMOs/BMOs

Q.3 Answer the following. (any one)

10 mark

1. Give postulates of Bohr's theory of hydrogen
2. Explain the types of molecular orbital.

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
Department of Chemistry
B.Sc. Part-I (Inorganic Chemistry)
Unit test -Paper-I Sem.-I

Day and Date: Sunday, 12/10/2019

Total Marks: 25

Time: 11.00 to 1.00 am

Q.1. Choose the correct alternatives among the following.

5 marks

1. Atomic radius depends on

- a) number of shells b) effective nuclear charge c) Screening effect d) none of these

2. group members are more reactive.

- a) 1 b) 2 c) 13 d) 14

3. Degenerate atomic orbital have.....

- a) different b) very low c) very high d) same

4. is ionic compound.

- a) NaCl b) CCl₄ c) HF d) Cl₂

- a) Ca b) Na₂S c) CaCl₂ d)

5. In SF₆ bond angle is 6. Non directional bond is

- a) covalent b) ionic c) polar d) none of these

Q.2 Write the answers briefly (any two)

10 mark

1. Explain octahedral geometry with suitable example.

2. Explain the types of molecular orbital.

3. Give the characteristics of ABMOs/BMOs

Q.3 Answer the following. (any one)

10 mark

1. Give postulates of Bohr's theory of hydrogen

2. Explain the types of molecular orbital.

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
Department of Chemistry
B.Sc. Part-I (Inorganic Chemistry)
Midterm Examination test -Paper-I Sem.-I

Day and Date: Sunday, 10/09/2017

Total Marks: 50

Time: 11.00 to 1.00 am

Q.1. Choose the correct alternatives among the following. 10 marks

1. Atomic radius depends on
a) number of shells b) effective nuclear charge c) Screening effect d) none of these
2.group members are more reactive.
a) 1 b) 2 c) 13 d) 14
3. Degenerate atomic orbital have.....
a) different b) very low c) very high d) same
4.is ionic compound.
a) NaCl b) CCl₄ c) HF d) Cl₂
a) Ca b) Na₂S c) CaCl₂ d)
5. In SF₆ bond angle is..... 6. Non directional bond is
- a) covalent b) ionic c) polar d) none of these
6. Magnetic quantum number accounts.....
a) Orientation b) size c) shape d) energy
7. Atomic radius depends on
- a) number of shells b) effective nuclear charge c) Screening effect d) none of these
8.group members are more reactive.

RayatshikshanSanstha's
Rajarshi Chhatrapati Shahu College Kolhapur

Department of Chemistry

B.Sc. Part I unit test- I

Inorganic Chemistry Paper No. I (71605)

Date & Time : 17/6/2022 02.00 to 4.30 pm

Marks: 10

Instruction:-

1. All question compulsory
2. Figures to the right hand side indicate full marks.

Q1 Multiple Choice Questions

- i) Atomic radius depends upon -----
a) number of shell b) effective nuclear charge c) screening effect d) all of these
- ii) wave nature of an electron was first given by
a) Debroglie b) Heisenberg c) Bohr d) Stark
- iii) Ionic compounds are
a) Conductor of electricity b) Liquid c) Hard and brittle d) soluble in non polar solvent.
- iv) Fajans rules are applicable to account covalent character of -----
a) Covalent b) Ionic c) Mettalic d) Network.
- v) Geometry of a molecule depends upon -----
a) Overlap b) Hybridisation c) Nature of overlap d) type of overlap
- vi) Geometry of IF_7 is -----
a) Octahedral b) Square planer c) Trigonal bipyramidal d) Pentagonal bypyramidal
- vii) In PCl_5 hybridisation is -----
a) Sp^3d b) Sp^3 c) Sp^2 d) Sp^2d^2
- viii) In homonucler diatomic molecule exchange energy is -----
a) Maximum b) Minimum c) Intermediate d) Less.
- ix) The Bond order of O_2 is -----
a) 1 b) 2 c) 3 d) 4
- x) Carbon monoxide is isoelectronic to.....
a) O_2 b) N_2 c) NO d) C_2

RayatshikshanSanstha's
Rajarshi Chhatrapati Shahu College Kolhapur
Department of Chemistry
B.Sc. Part I Question bank
Inorganic Chemistry Paper No. I (71605)

Date & Time : 12/5/2022

Q1 Multiple Choice Questions

i) In homonuclear diatomic molecule exchange energy is -----

- a) Maximum b) Minimum c) Intermediate d) Less.

ii) The Bond order of O_2 is-----

- a) 1 b) 2 c) 3 d) 4

iii) Carbon monoxide is isoelectronic to.....

- a) O_2 b) N_2 c) NO d) C_2

i) Atomic radius depends upon -----

- a) number of shell b) effective nuclear charge c) screening effect d) all of these

iv) wave nature of an electron was first given by

- a) Debroglie b) Heisenberg c) Bohr d) Stark

v) Ionic compounds are

- a) Conductor of electricity b) Liquid c) Hard and brittle d) soluble in non polar solvent.

iv) Fajans rules are applicable to account covalent character of -----

- a) Covalent b) Ionic c) Metallic d) Network.

vi) Geometry of a molecule depends upon -----

- a) Overlap b) Hybridisation c) Nature of overlap d) type of overlap

vii) Geometry of IF_7 is -----

- a) Octahedral b) Square planar c) Trigonal bipyramidal d) Pentagonal bipyramidal

viii) In PCl_5 hybridisation is -----

- a) Sp^3d b) Sp^3 c) Sp^2 d) Sp^2d^2

ix) The Bond order of O_2 is-----

- a) 1 b) 2 c) 3 d) 4

x) Carbon monoxide is isoelectronic to.....

- a) O_2 b) N_2 c) NO d) C_2