



TAMIL NADU OPEN UNIVERSITY

Chennai - 15

School of Sciences

Department of Chemistry

HOME / SPOT ASSIGNMENT

Programme Code No : 182

Programme Name : B.Sc. Chemistry

Course Code & Name : BCHE - 21 & General Chemistry - III

Batch : AY 2018-19 [2nd Year]

No. of Assignments : 4 [One Assignment for each 2 credits]

Maximum CIA Marks : 25 [Average of total no. of Assignments]

ASSIGNMENT-1

Max: 25 marks

Answer ANY ONE of the question not exceeding 1000 words

- 1) Explain about the chemistry of charcoal and silicon.

- 2) Discuss in details about the following reactions with examples
 - (i) Vilsmeier Haack
 - (ii) Chichibabin
 - (iii) Friedel Craft' alkylation and arylation
 - (iv) Reimer-Tiemann

- 3) Discuss the following
 - (i) Classification of Terpenes and Terpenoids
 - (ii) Citral
 - (iii) Menthol
 - (iv) Camphor

ASSIGNMENT-2

Max: 25 marks

Answer ANY ONE of the question not exceeding 1000 words

- 1) Explain about the following with examples
 - (i) Glasses and Ceramics
 - (ii) Order and Molecularity of a reaction
 - (iii) Organometallic compounds of Li

- 2) Describe the following with examples.
 - (i) Allotropes of carbon
 - (ii) Compounds of Boron
 - (iii) Compounds of Aluminium
 - (iv) Uses of Boron nitride

- 3) Discuss about the Characteristic features of Terpenoids and Alkaloids.

ASSIGNMENT-3

Max: 25 marks

Answer ANY ONE of the question not exceeding 1000 words

- 1) Discuss about the following compounds
 - (i) Conine
 - (ii) Piperine
 - (iii) Nicotine
 - (v) Classification of Terpenes and Terpenoids

- 2) Discuss in details about the determination of rate and order of a reaction.

- 3) Write the notes on following with examples.
 - (i) Ortho and Para directing groups
 - (ii) Substitution reactions and its classifications

ASSIGNMENT-4

Max: 25 marks

Answer ANY ONE of the question not exceeding 1000 words

- 1) Explain about the following with examples.
 - (i) Allotropes of carbon
 - (ii) Charcoal and Silicon
 - (iii) Compounds of Boron
 - (iv) Uses of $AlCl_3$

- 2) Write in details about the Collision Theory and Absolute Reaction Rate Theory.

- 3) Discuss the following reactions with mechanisms
 - (i) Riemer-Tiemann
 - (ii) Vilsmeier Haack
 - (iii) Chichibabin
 - (iv) Gattermann-Koch



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Programme Code No : 182

Programme Name : B.Sc. Chemistry

Course Code & Name : BCHE - 22 & General Chemistry - IV

Batch : AY 2018-19 [2nd Year]

No. of Assignments : 4 [One Assignment for each 2 credits]

Maximum CIA Marks : 25 [Average of total no. of Assignments]

ASSIGNMENT-1

Max: 25 marks

Answer ANY ONE of the question not exceeding 1000 words

- 1) Discuss in details about the characteristic features of Oxygen and Nitrogen family elements.

- 2) Explain about the following
 - (i) Principles of metallurgy
 - (ii) Metallurgical operations and processes
 - (iii) Methods involved in the extraction of metals

- 3) Describe the following with examples.
 - (i) Solvent-free reaction
 - (ii) Phase-transfer catalysts
 - (iii) Biocatalysts
 - (iv) Microwave assisted synthesis
 - (v) Ultrasound assisted synthesis

ASSIGNMENT-2

Max: 25 marks

Answer ANY ONE of the question not exceeding 1000 words

- 1) Describe about the following drugs with examples.
 - (i) Antibiotic
 - (ii) Antipyretic
 - (iii) Anti-inflammatory
 - (iv) Analgesic
 - (v) Anaesthetic

- 2) Discuss in details about the important compounds and uses of Co, Ni and Zn.

- 3) Discuss the chemistry of the following compounds.
 - (i) PCl_3
 - (ii) PCl_5
 - (iii) POCl_3
 - (iv) PH_3
 - (v) P_2O_5

ASSIGNMENT-3

Max: 25 marks

Answer ANY ONE of the question not exceeding 1000 words

- 1) Describe the following with examples.
 - (i) Anomalous behaviour of Oxygen
 - (ii) Pseudohalogens
 - (iii) Inert gases
 - (iv) Uses of Nitrogen

- 2) Explain in details about the extraction processes of metals.

- 3) Discuss in details about the following.
 - (i) Lanthanide contraction
 - (ii) Toxicity of Cadmium and Mercury
 - (iii) Comparative accounts of Lanthanides and Actinides

ASSIGNMENT-4

Max: 25 marks

Answer ANY ONE of the question not exceeding 1000 words

- 1) Discuss in details about the important compounds and uses of Cr, Mn and Ni.

- 2) Explain about the chemistry of the following compounds
 - (i) XeF_2
 - (ii) XeF_4
 - (iii) XeF_6
 - (iv) XeOF_2
 - (v) XeOF_4

- 3) Write about the following with examples.
 - (i) Classification of Carbohydrates
 - (ii) Classification of Vitamins
 - (iii) Hormones



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HOME / SPOT ASSIGNMENT

Programme Code No : 182

Programme Name : B.Sc. Chemistry

Course Code & Name : BCHEA - 02 & Animal Diversity (Ancillary paper)

Batch : AY 2018-19 [2nd Year]

No. of Assignments : 2 [One Assignment for each 2 credits]

Maximum CIA Marks : 25 [Average of total no. of Assignments]

ASSIGNMENT-1

Max: 25 marks

Answer ANY ONE of the question not exceeding 1000 words

- 1) Discuss -the diversity of chordates.
- 2) Explain the life cycle of lamellidens.
- 3) Detail account on external features of pigeon.

ASSIGNMENT-2

Max: 25 marks

Answer ANY ONE of the question not exceeding 1000 words

- 1) Discuss the general characteristics, classification and distributions of shark.
- 2) Explain the general characteristics, classification and distributions of rabbit.
- 3) Explain the general characteristic and classification of frog.

Important Instructions

1. Date of Publication : 07.01.2020
2. Last date of submission of answer script by the student to the study centre /LSC : 05.04.2020
3. Last date of submission of marks by the examiner to the study centre/LSC : 12.04.2020
4. Last date of submission of marks by the study centre/LSCs to the office of C.O.E. on or before : 25.04.2020