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BSHHSC 283

**Choice Based Credit System IV Semester B.Sc. (Home Science) Degree
Examination, September 2022
(2020 – 21 Batch Onwards)
CHEMISTRY – II**

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Answer **ten** questions from Part – **A** in first **two** pages of answer book.
- 2) Answer **one** set question from **each** Unit given in Part – **B**.
- 3) Write chemical equations and diagrams **wherever** necessary.

PART – A

1. Answer **any ten** of the following : **(10×2=20)**
- Give any two importance of phosphorus in biological system.
 - What are haemocyanins ?
 - Write any two functions of sulphur in biological system.
 - What are colloids ?
 - Define n/p ratio.
 - Define half-life.
 - Define fluorescence.
 - Define molar extinction coefficient.
 - State Beer-Lambert's law.
 - Give any one preparation of alkenes.
 - What are substitution reactions ? Give one example.
 - What are Dienes ? Give one example.

P.T.O.



PART – B

Answer **any one** set of question choosing from **each** Unit.

(4×15=60)

Unit – 1

2. a) Explain the toxicity of lead on living organisms. **5**
b) Give the role of cobalt in Vitamin B12 and molybdenum in nitrogenase. **5**
c) Give the function of sulphur and selenium in biological system. **5**

OR

3. a) Explain the functions and effects of chloride, fluorine. **5**
b) Describe role of iron in haemoglobin. **5**
c) What are metalloenzymes ? Explain importance of metalloenzymes. **5**

Unit – 2

4. a) Explain the applications of adsorption. **5**
b) What are emulsions ? Explain its types with example. **5**
c) Write a note on Frickle and Cerric sulphate dosimeter. **5**

OR

5. a) Discuss the adsorption indicators in precipitation titrations. **5**
b) Explain the applications of Colloids. **5**
c) Write a note on radio active decay series. **5**

Unit – 3

6. a) State and explain laws of photochemistry. **5**
b) What are the reasons for high and low quantum yield in photochemical reaction ? **5**
c) Explain instrumentation and working of Flame photometry. **5**

OR



7. a) Write a note on chemiluminescence. **5**
b) Explain photosensitization and photoinhibition. **5**
c) Discuss the applications of UV-Visible spectrometry. **5**

Unit – 4

8. a) Give any two chemical reactions of alkanes. **5**
b) Give the methods of preparation of butadiene. **5**
c) Explain the mechanism of S_N1 reaction. **5**

OR

9. a) Give any two chemical reactions of alkenes. **5**
b) Explain the mechanism of addition of HBr to 1, 3-butadiene. **5**
c) Explain the mechanism of E^2 reaction. **5**
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