

EVERWIN MATRIC. HR. SEC. SCHOOL

01.11.19 TT Chemistry Time: 45 Mins  
 STD: XII (B,D,E) Marks: 30

- I. Choose the correct answer: 5x1=5
- Conjugate base for Bronsted acids  $\text{H}_2\text{O}$  and  $\text{HF}$  are
    - $\text{OH}^-$  &  $\text{H}_2\text{F}^+$  respectively
    - $\text{H}_3\text{O}^+$  &  $\text{F}^-$  respectively
    - $\text{OH}^-$  &  $\text{F}^-$  respectively
    - $\text{H}_3\text{O}^+$  &  $\text{H}_2\text{F}^+$  respectively
  - Which of these is not likely to act as Lewis base?
    - $\text{BF}_3$
    - $\text{PF}_3$
    - $\text{CO}$
    - $\text{F}^-$
  - The aqueous solutions of sodium formate,  $\text{AlCl}_3$  and  $\text{KCN}$  are
    - acidic, acidic, basic
    - basic, acidic, basic
    - basic, neutral, basic
    - None of these
  - When dilution increases, the degree of dissociation of weak acid also increases the statement is \_\_\_\_\_.
    - Arrhenius concept
    - Ostwald dilution law
    - Lowry bronsted concept
    - None of these
  - A solution of 0.10M of weak electrolyte dissociates 1.20% at  $25^\circ\text{C}$  then the dissociation constant of acid is \_\_\_\_\_.
    - $1.44 \times 10^{-5}$
    - $2.44 \times 10^{-5}$
    - $1.44 \times 10^{-7}$
    - $2.44 \times 10^{-7}$
- II. Answer any 5 of the following: 5x3=15
- Define  $\text{P}^{\text{H}}$  and  $\text{P}^{\text{OH}}$
  - Discuss the Ionisation of water.
  - Differentiate Lewis acid and Lewis base.
  - Write Arrhenius concept with limitation.
  - Calculate  $\text{P}^{\text{H}}$  of 0.001M  $\text{HCl}$  solution.
  - Calculate  $\text{P}^{\text{H}}$  of  $10^{-7}\text{M}$   $\text{HCl}$ .
  - Write the relationship between  $\text{P}^{\text{H}}$  and  $\text{P}^{\text{OH}}$ .
- III. Answer any 2 of the following: 2x5=10
- Explain common Ion effect.
  - Discuss in detail Ostwald's dilution law.
  - Explain Lowry Bronsted concept in detail.
  - a) Calculate the concentration of  $\text{OH}^-$  in a fruit juice which contains  $4 \times 10^{-3}\text{M}$ ,  $\text{H}_3\text{O}^+$  ion. Identify the nature of the solution. (2½)  
 b) Calculate the  $\text{P}^{\text{H}}$  of 0.1M  $\text{CH}_3\text{COOH}$  solution. Dissociation constant of acetic acid is  $2 \times 10^{-5}$ .

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01.11.19 TT Biology Time: 45 Mins  
 STD: XII (A,C) Bio-Botany Marks: 30

- I. Answer any 2 of the following: 2x2=4
- What is pseudo cereal? Give an example.
  - Write the origin and area of cultivation of green gram and red gram.
  - Write the botanical name of palmyra. List out the uses.
- II. Answer any 2 of the following: 2x3=6
- If a person drinks a cup of coffee daily, it will help him for his health. Is it correct? If it is correct, list out the benefits.
  - What are millets? What are its types? Give examples.
  - Write the uses of nuts you have studied.
- III. Answer any 1 in detail: 1x5=5
- List out the major cereals, write the origin, area of cultivation and uses.
  - Write a note on oil seeds, write the origin, area of cultivation and uses.

Bio-Zoology

- I. Give the correct answer in a word or two: (Any 3) 3x1=3
- What is the medicinal ingredient that is found in *Rouwolfia vomitaria*?
  - Who introduced the term biodiversity and in which year?
  - What is the decrease in temperature for every 1 kilometer (km) rise above mean sea level?
  - What are the two realms of India?
- II. Answer any two of the following: 2x2=4
- What is Alphabiodiversity? Explain.
  - Name any four bio geographical regions of India.
  - Give reasons for richness of biodiversity in the Tropics.
- III. Answer any one of the following: 1x3=3
- Explain about Genetic diversity. Give example.
  - What are the three types of species, diversity?
- IV. Answer any one of the following in detail: 1x5=5
- What are the important aspects of Biodiversity?
  - Explain on Western Ghats and Desert Biogeographical regions of India.

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01.11.19  
STD: XII (F-J)

TT English

Time: 45 Mins  
Marks: 25  
12x1=12

I. Read the set of poetic lines and answer the following question:

And this might stand him for the storms  
and serve him for humdrum monotony.

1. What might help the son to face the storms?
2. What does the word 'storms' refer to here?
3. Explain the phrase 'humdrum monotony'.
4. Whom does 'him' refer to?

And this two might serve the son,  
Brutes have been gentled where lashes failed.

5. What do you mean by 'brutes'?
6. Mention the figure of speech.

Tell him too much money has killed men  
and left them dead years before burial

7. Mention the figure of speech.

The quest of lucre beyond a few easy needs  
has twisted good enough men  
sometimes into dry thwarted worms.

8. Explain 'Quest of lucre'.

9. What has destroyed good men?

Tell him solitude is creative if he is strong  
and final decisions are made in silent rooms

10. Can being in solitude help a strong human being? How?

11. Identify the figure of speech in the above line.

Life is a soft loam; be gentle; go easy  
And this too might serve him.

12. Identify the figure of speech.

II. Explain the following lines with reference to context: (3)

13. Brutes have been gentled where lashes failed.

III. Answer the following questions in about 100-150 words each:

(5)

14. How according to the poet is it possible for his son to bring changes into a world that resents change?

IV. Respond to the advertisement:

(5)

15.

Software Company requires experienced  
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Candidates should be graduate with software  
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Apply to: Box No: WW55164  
C/o The Hindu, Chennai-600 002.

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01.11.19  
STD: XII (A,C)

TT Computer Science

Time: 45 Mins  
Marks: 30

I. Answer the following:

4x2=8

1. Write the expansion of  
i) SWIG            ii) MinGW            iii) API
2. What is the difference between scripting language and programming language?
3. What is the use of modules?
4. What are the application of scripting language?

II. Answer the following:

4x3=12

5. Write a note on `_name_variable`.
6. What is `sys.argv`? What does it contain?
7. What is the purpose of OS, `getopt` module?
8. How will you access module function?

III. Answer in detail:

2x5=10

9. Write the syntax for `getopt()` and explain its arguments and return value.
10. Explain each word of the following command.  
Python `<filename.py>`-<i> <c++ filename without cpp extension>