EVERWIN MATRIC. HR. SEC. SCHOOL

17.06.19 T.T Maths Time: 45 Mins

STD: XII (D,E) Marks: 40

I. Choose the correct answer: 10x1=10

1. The conjugate of 2i is _____.
   a) 2i b) -2i c) 4i d) -4i
2. The value of i^{14} is _____.
   a) i b) –i c) 1 d) -1
3. $i^n + i^{n+1} + i^{n+2} + i^{n+3}$ is _____.
   a) 0 b) 1 c) -1 d) i
4. The conjugate of a complex number is $\frac{1}{i-2}$. Then the complex number is _____.
   a) $\frac{1}{i+2}$ b) $\frac{-1}{i+2}$ c) $\frac{-1}{i-2}$ d) $\frac{1}{i-2}$
5. If Z is a non-zero complex number such that $2iz^2=\bar{z}$ then $|z|$ is
   a) $\frac{1}{2}$ b) 1 c) 2 d) 3
6. The value of $i^5+i^6+i^7+i^8$=_____
   a) 0 b) 1 c) -1 d) i
7. If $|z|=1$ then the value of $\frac{1+z}{1+\bar{z}}$ is _____
   a) z b) $\bar{z}$ c) $\frac{1}{z}$ d) 1
8. The value of $\sum_{i=1}^{13}(i^n + i^{n-1})$ is _____
   a) 1+i b) i c) 1 d) 0
9. If $\left|z-\frac{3}{z}\right|=2$ then the least value of $|z|$ is _____
   a) 1 b) 2 c) 3 d) 5
10. The area of the triangle formed by the complex numbers z, iz and z+iz in the Argand's diagram is _____.
    a) $\frac{1}{2}|z|^2$ b) $|z|^2$ c) $\frac{3}{2}|z|^2$ d) $2|z|^2$

II. Answer the following: 5x3=15

11. Simplify: a) $i^{1948} - i^{-1869}$ ii) $i^{59}+\frac{1}{i^{59}}$
12. Simplify $i.i^2.i^3$……i^{2000}
13. Simplify $\sum_{n=1}^{10} i^{n+50}$
14. If z=5-2i, w=-1+3i evaluate $(z+w)^2$ and z-iw.
15. If z_1=6+7i, z_2=3-5i and z_3=5 then show that $(z_1z_2)z_3=z_1(z_2z_3)$

III. Answer the following: 3x5=15

16. If z_1=2+5i, z_2=-3-4i & z_3=1+i, find the additive and multiplicative inverse of z_1, z_2 , z_3
17. Find the values of x & y if (3-i)x –(2-i)y+2i+5 and 2x+(-1+2i)y+3+2i are equal.
18. Given z=2+3i, then z, iz, z+iz, -iz, z-iz represent in Argand plane.

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17.06.19 T.T Commerce Time: 45 Mins

STD: XII (F,G) Marks: 40

I. Choose the correct answer: 10x1=10

1. Which is the first step in Process of MBO?
   a) Fixing Key Result Area b) Appraisal of Activities
   c) Matching Resources with Activities
   d) Defining Organisation Objectives
2. Delegation of Authority is easily done with the help of _____.
   a) MBM b) MBE c) MBO d) MBA
3. _____ system gives full scope to the individual strength and responsibility.
   a) MBO b) MBE c) MBM d) MBA
4. _____ keeps management alert to opportunities and threats by identifying critical problems.
   a) MBA b) MBE c) MBM d) MBO
5. Expand the form: MBO _____
6. Expand the form: MBE _____
7. _____ are expressed in a meaningful manner.
   a) Goals b) Objectives c) both a or b d) none of the above
8. The objectives of each _____ are fixed.
   a) subordinate b) individual c) both a or b
   d) none of the above
9. An _____ is a part of the dynamic world.
   a) Management b) Organisation c) department
   d) all the above
10. Expand KRA: _____

II. Answer the following:

11. Draw the process of MBO. Explain the following: 1x10=10
    a) Goals of each section
    b) Fixing Key Result Areas
    c) Periodical Review Meetings
12. Explain the terms: 5x4=20
    a) Defining organisational objectives
    b) Setting subordinates objectives or targets
    c) Matching Resources with objectives
    d) Appraisal of Activities
    e) Reappraisal of objectives

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17.06.19 T.T English Time: 45 Mins

STD: XII (H,I,J) Marks: 25

I. Read the set of poetic lines and answer the following questions: 22x1=22

"All through the summer at ease we lay,
And daily from the turret wall
We watched the mowers in the hay
And the enemy half a mile away"

1. Who does 'we' refer to?
2. How did the soldiers spend the summer days?
3. What could they watch from the turret wall?
4. What is a turret wall?
5. Where were the enemies?

"For what, we thought, had we to fear
With our arms and provender, load on load,
Our towering battlements, tier on tier,
And friendly allies drawing near
On every leafy summer road".

6. Give the meaning of the word 'arms'.
7. What do you mean by the word 'provender'?
8. What was in stock in the castle?
9. Who are friendly allies?
10. Why were the soldiers confident that they were safe?

"Our gates were strong, our walls were thick,
So smooth and high, no man could win".

11. How safe was the castle?
12. What was the firm belief of the soldiers?
What could they offer us for bait?
Our captain was brave and we were true.....
There was a little private gate,
A little wicked wicket gate.
The wizened warder let them through.

13. Was their captain brave and loyal?
14. Who had let the enemies in?
15. How did the enemies enter the castle?
16. What do you mean by a 'wicked wicket gate'?
17. Mention the figure of speech used in the fourth line.

Oh then our maze of tunneled stone
Grew thin and treacherous as air.
The castle was lost without a groan,
The famous citadel overthrown.

18. What happened to the castle?
19. What is the figure of speech used in the second poetic line?

"How can this shameful tale be told?
I will maintain until my death
We could do nothing, being sold:
Our only enemy was gold,
And we had no arms to fight it with."

20. What was the shameful act?
21. Who was the real enemy?
22. What does the word 'it' refer to?

II. Explain with reference to the context: 1x3=3

23. They seemed no threat to us at all.

(or)

24. Our only enemy was gold.

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17.06.19 T.T Chemistry Time: 45 Mins

STD: XII (A,B,C) Marks: 30

I. Choose the correct answer: 6x½=3

1. Which among the following is not a borane?

a) B_2H_6 b) B_3H_6 c) B_4H_{10} d) none of these

2. Choose the chalcogen from the following:

a) Carbon b) Sulphur c) Nitrogen d) Neon

3. _____ is used as moderator in nuclear reactors.

a) ${}^{9}_{5}B$ b) ${}_{5}B^{10}$ c) ${}_{6}C^{14}$ d) Ge^{69}

4. Match list I with list-II and choose the correct answer:

List-I	List-II	A B C D
A. Borax	1. $Na_2B_4O_7$	a) 4 1 2 3
B. Borax glass	2. $Na_2B_4O_7.5H_2O$	b) 3 2 1 4
C. Jeweller Borax	3. $[B_4O_5.(OH)_4]^{2-}$	c) 4 2 1 3
D. Prismatic Borax	4. $Na_2B_4O_7.10H_2O$	d) 3 1 4 2

5. Assertion (A): Fluorine is the most reactive element among the halogens.

Reason: Fluorine has minimum bond dissociation energy.

a) A and R are correct and R explains A

b) A and R are correct and R not explains A

c) A is correct but R is wrong

d) A is wrong but R is correct

6. Most common oxidation state for halogens is _____.

a) +1 b) +2 c) -2 d) -1

II. Answer any 6 of the following: 6x2=12

7. What is inert pair effect?

8. Why group 18 elements are called inert gases? Write the general electronic configuration of group 18 elements.

9. Give two examples for each of the following:

a) Prictogens b) Chalcogens

10. Give all the allotropic forms of boron.

11. What are boranes? Give the formula for the simplest borane.

12. How is borax prepared from colemanite ore?

13. What happens when borax is heated? Give equation.

14. Give the uses of borax.

III. Answer any 5 of the following: 5x3=15

15. Give the uses of boron.

16. Write a short note on anamolous properties of the first element of p-block.

17. What are allotropes? Give the allotropic forms of carbon.

18. Give the formation of diborane from Borontrifluoride.

19. How is boronnitride prepared from boron.

20. What happens when borax is treated with ammonium chloride?