



CHEMISTRY

AAKASH INSTITUTE ENGLISH

MOCK TEST 14

Exercise

1. When ClO_3^- , changes to Cl^-

- A. It gains six electrons
- B. It gains four electrons
- C. It loses six electrons
- D. It gains three electrons

Answer: A

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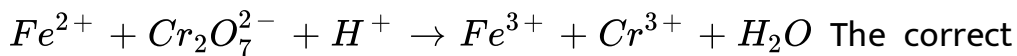
2. A reducing agent is a substance which can

- A. Accept electron
- B. Donate electron
- C. Reduce itself
- D. Oxidises another species

Answer: B

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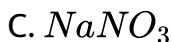
3. For the redox reaction:



The correct coefficients of the reactants for the balanced reaction are

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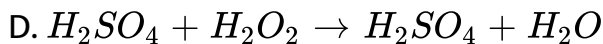
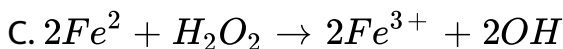
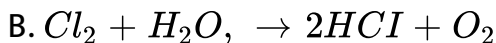
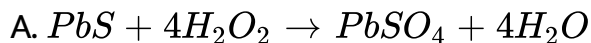
4. Which among the following will not act as a reducing agent?



Answer: C

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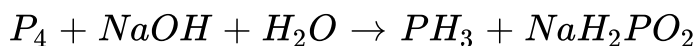
5. In which of the following reactions, H_2O_2 is acting as a reducing agent?



Answer: B

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6. In the given reaction:



A. P is reduced only

B. P undergoes disproportionation reaction

C. P is oxidised only

D. O is reduced

Answer: B



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7. In the conversion of $I_2 \rightarrow IO_3^-$ the oxidation state of iodine changes from

A. 0 to +6

B. 0 to +5

C. 0 to -1

D. 0 to -3

Answer: B

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8. The oxidation state of Mn in MnO_4^{2-} is

A. +8

B. +6

C. +7

D. +5

Answer: B

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9. The oxidation state of phosphorus varies from

A. (-3) to +5

B. (-1) to +3

C. (-3) to +3

D. (-5) to +5

Answer: A



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10. The average oxidation state of sulphur atom in $S_4O_6^{2-}$ ion is

A. +2

B. +5

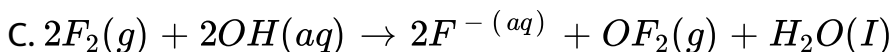
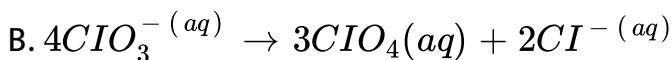
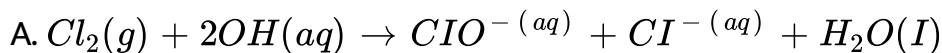
C. 0

D. +2.5

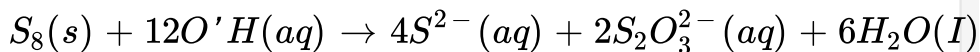
Answer: D

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11. Which of the following is not an example of disproportionation reaction ?



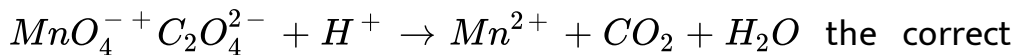
D.



Answer: C

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12. For the redox reaction,



the correct coefficients of the reactants for the balanced reaction are respectively MnO_4^- , $\text{C}_2\text{O}_4^{2-}$, H^+ :

A. $\frac{1}{5}$

B. $\frac{2}{5}$

C. $\frac{5}{2}$

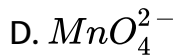
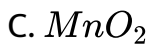
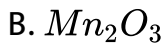
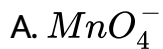
D. $\frac{3}{5}$

Answer: B



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13. The equivalent weight of MnCl_2 , is half of its molecular weight when it is converted to

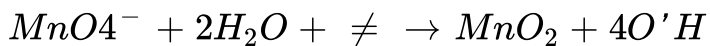


Answer: C



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14. The value of n in the following half equation is



A. 3

B. 5

C. 4

D. 6

Answer: A

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15. The oxidation state of Cr in CrO_5 is

- A. +4
- B. +6
- C. +8
- D. +10

Answer: B

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16. For the galvanic cell:

$Zn(s) | Zn^{2+}(aq)(1.0M) || Ni^{2+}(aq)(1.0M) | Ni(s)$, E_{cell}^o will be

[Given $E_{\frac{Zn^{2+}}{Zn}}^o = -0.76V$, $E_{\frac{Ni^{2+}}{Ni}}^o = -0.25V$]

A. $-0.51V$

B. $-1.01V$

C. $0.51V$

D. $1.01V$

Answer: C



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17. Which of the following metals will not react dilute hydrochloric acid?

A. Cu

B. Zn

C. Fe

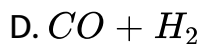
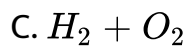
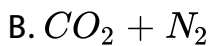
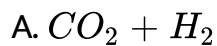
D. Ca

Answer: A



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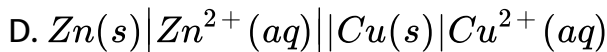
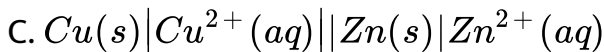
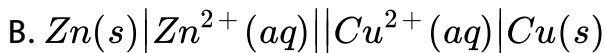
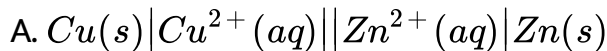
18. Syngas is a mixture of



Answer: D

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19. $Zn(s) + Cu^{2+}(aq) \rightarrow Zn^{2+}(aq) + Cu(s)$ The cell representation for the above redox reaction is



Answer: B

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20. In which of the compounds the oxidation state of hydrogen is -1?

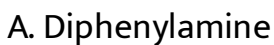


Answer: B



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21. In Iodometric titration which indicator is used to detect end point of titration reaction?



B. Starch

C. MnO_4^\ominus

D. Methyl orange

Answer: B

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22. If a small Cu rod is placed in an aqueous solution of ferrous salt, then which of the following will be observed? (

$$E_{\frac{Cu^{2+}}{Cu}}^0 = -0.34V, E_{\frac{Fe^{2+}}{Fe}}^0 = -0.44V)$$

A. Copper will be oxidised

B. Fe^{2+} will be reduced

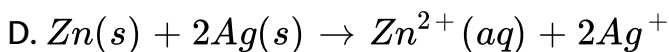
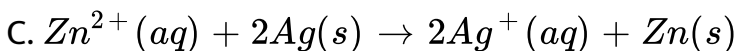
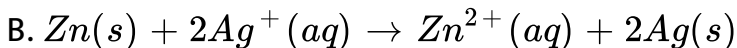
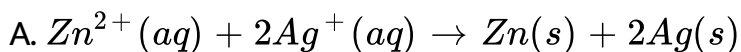
C. No reaction will take place

D. Fe^{2+} will be oxidised

Answer: C

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23. The standard reduction potential of zinc and silver at 298 K are $E_{\frac{Zn^{2+}}{Zn}}^0 = -0.76V$, $E_{\frac{Ag^+}{Ag}}^0 = 0.80V$ Which of the following reactions actually takes place in a cell reaction?



Answer: B

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24. The standard electrode potentials of four elements A,B,C,D are - 3.05,- 1.66,-0.40 and 0.80 volts respectively. The highest chemical activity will be shown by:

A. D

B. A

C. C

D. B

Answer: B

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25. In faintly alkaline solution, 4 moles of permanganate anion quantitatively oxidize thiosulphate anions to produce X moles of sulphate anion. The value of X

A. 8

B. 6

C. 4

D. 3

Answer: D



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