



CHEMISTRY

BOOKS - UNITED BOOK HOUSE

MODEL QUESTION PAPER 16

Exercise

1. No of Subshell under principle quantum no

'n' :

A. n^2

B. $n-1$

C. $2n$

D. n

Answer:



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2. Covalency is maximum when a bond is formed between—

- A. Atoms of same element
- B. Size of the atoms are almost equal
- C. Maximum differences of electro positivity
- D. Having same electronic Configuration.

Answer:



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3. Reversible process is that process in Which

- A. Surroundings transformed into system

B. System Spontaneously converts to
surroundings

C. There is no boundary between system
and surroundings

D. Always there exist equilibrium between
system and surroundings.

Answer:



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4. The value of compressibility factor of an ideal gas:

A. 1

B. -1

C. 2

D. 0.7

Answer:



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5. For the reaction $3A \rightarrow 2B$ the rate $D\frac{B}{d}A$ is equal to

A. $-\frac{2}{3} \frac{dA}{dt}$

B. $\frac{3}{2} \frac{dA}{dt}$

C. $-\frac{1}{3} \frac{dA}{dt}$

D. $3 \frac{dA}{dt}$

Answer:



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6. Which pair shows diagonal property

A. Al & Be

B. Li & Na

C. Na & Mg

D. Al & Mg.

Answer:



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7. Which among the following having highest ionic Conductivity



Answer:



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8. Which pair shows geometrical isomerism—

A. d & l lactic acid

B. Maleic & fumaric acid

C. Active & meso tartaric acid

D. Acetone & 2-propanol.

Answer:



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9. Which functional group has least priority-

A. - OH

B. -CHO

C. -O-

D. -COOH.

Answer:



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10. Correct order of halogenation reaction of hydrocarbon—

A. Chlorination > Bromination >

Iodination

B. Bromination > Chlorination >

Iodination

C. Chlorination > Iodination >

Bromination

D. Bromination > Iodination >

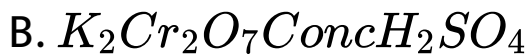
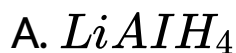
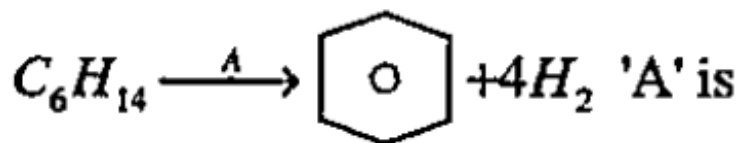
Chlorination.

Answer:

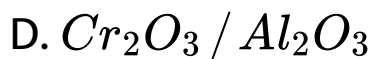


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11. Find A in the figure:



C. Na-ether



Answer:



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12. Which one is non biodegradable

A. Green vegetables

B. Gamaxine

C. Cow-dunk

D. Dead-body.

Answer:



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13. How many significant figure in 0.013200?



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14. What is lanthanide?



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15. What is stair step diagonal?



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16. What is thermodynamic equilibrium?



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17. What is octane number?



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18. Give an example of antiknock compound



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19. Calculate the number of H & O atoms in 90 gm water at $4^{\circ}C$.



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20. State with example law of Reciprocal proportion.



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21. Calculate the wave length of photon having energy 2 eV .



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22. Find the first ionization energy of hydrogen atom given $E_1 = -13.38\text{eV}$



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23. Why the 1st Ionisation potential of N_2 is higher than O_2 ?

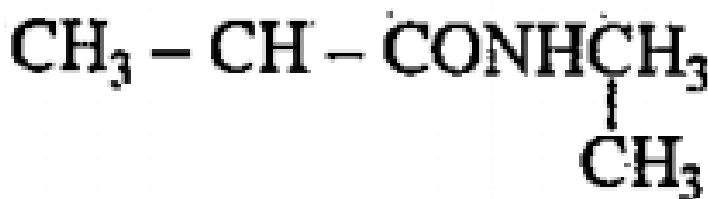


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24. Electron affinity of inert elements are positive. Why?

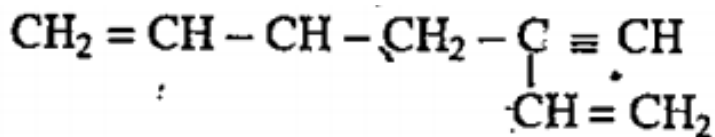
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25. Give-IUPAC name of the following organic Compound



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26. Give-IUPAC name of the following organic Compound



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27. Write two Causes of air pollution on State one. remedy of it.



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28. Write de Broglie equation for wave,particle duality.



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29. Show that P orbital can accomodate at least 6 electrons.



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30. What do you mean by lanthanoid Contraction?



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31. Arrange mg, Al, Si and Na in the increasing order of their ionisation potentials.



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32. What is electronegativity? State with reason its change across a period.



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33. Which one shows higher Covalent Character LiCl or LiI? and why?



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34. What is hybridisation? Explain with example sp^2 hybridisation.



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35. Write Graham's law of diffusion. Write the S.I. unit of viscosity?



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36. What is Capillary action? Give molecular interpretation of surface tension



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37. Calculate the final pressure when 2 moles of He at N.T.P. is compressed to 10 lit. Given $\gamma = 1.61$



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38. Bond dissociation energy of C-C, C = C, H-

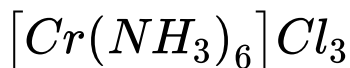
H&C-H are 300, 550, 350, 400 KJ mol^{-1}

Calculate heat of hydrogenation of ethylene.



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39. Find the oxidation number of * marked element in the following Compound:-



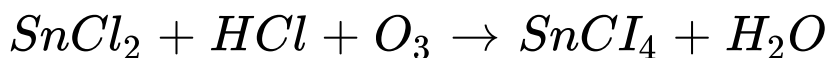
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40. Calculate the oxidation no of * marked atom: *Fe (CO)₅



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41. Balance the equation by oxidation no method:-



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42. What is 'syn gas'? Why it is called syn gas?



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43. Can H_2O_2 Solution be concentrated by heating?



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44. What is volume strength? Which one is more powerful 10 volume and 10% H_2O_2

solution.



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45. Write the drawbacks of solveyprocess for synthesis of Na_2CO_3



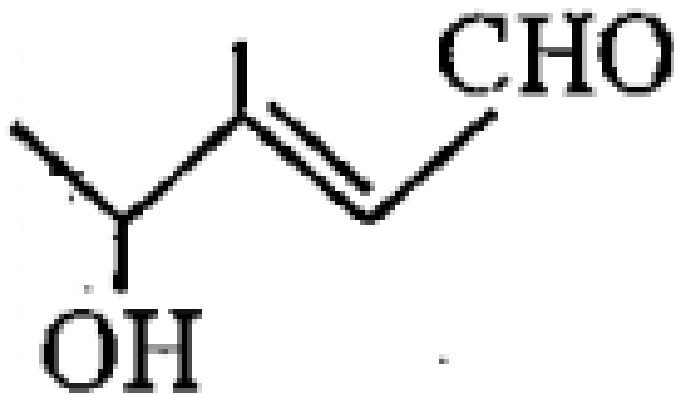
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46. Write the IUPAC name of :-



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47. Write the IUPAC name of :-



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48. What is stereogenic Center?

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49. Express the equilibrium constant of the reaction in the forms of K_p and K_c for the reaction, $N_2(g) + 3H_2(g) \rightarrow 2NH_3(g)$.



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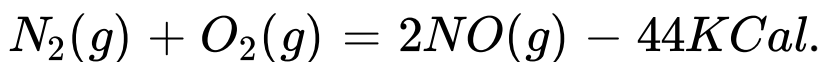
50. State two differences between physical & Chemical equilibrium state the effect of temperature for the equilibrium.

$Ice \rightarrow water$



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51. Discuss the effect of heat on the equilibrium



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52. Why Boron has high melting point? How would you synthesize diborane? What is Zirconium?



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53. Explain why CCl_4 is not hydrolysed while SiCl_4 is hydrolysed



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54. What happens when:- HCOOH is treated with Conc. H_2SO_4



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55. What is flint glass?





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56. How would you Carry out the following Conversion: Isopropyl bromide \rightarrow 2, 3-dimethyl butane



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57. Do the following conversions:

Acetylene from Methane



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58. What is Marsh gas.



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