



Sri Chaitanya IIT Academy.,India.

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A right Choice for the Real Aspirant

ICON Central Office - Madhapur - Hyderabad

SEC: **Sr.Super60_NUCLEUS & ALL_BT**

JEE-MAIN

Date: 19-01-2023

Time: 09.00Am to 12.00Pm

GTM-09

Max. Marks: 300

KEY SHEET

PHYSICS

1)	2	2)	3	3)	4	4)	4	5)	4
6)	4	7)	4	8)	3	9)	2	10)	1
11)	2	12)	3	13)	2	14)	2	15)	3
16)	2	17)	4	18)	4	19)	2	20)	1
21)	234	22)	12	23)	1234	24)	134	25)	134
26)	23	27)	123	28)	13	29)	2	30)	3

CHEMISTRY

31)	3	32)	2	33)	3	34)	4	35)	3
36)	4	37)	1	38)	4	39)	3	40)	3
41)	1	42)	2	43)	1	44)	3	45)	4
46)	4	47)	2	48)	3	49)	2	50)	4
51)	4	52)	6	53)	3	54)	2	55)	2
56)	5	57)	3	58)	3	59)	6	60)	6

MATHEMATICS

61)	2	62)	4	63)	3	64)	3	65)	2
66)	1	67)	4	68)	1	69)	1	70)	3
71)	1	72)	3	73)	2	74)	4	75)	3
76)	4	77)	3	78)	4	79)	4	80)	1
81)	2	82)	7	83)	4	84)	3	85)	2
86)	24	87)	2	88)	6	89)	4	90)	1



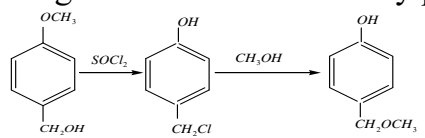
SOLUTIONS

PHYSICS

1. Conceptual
2. Conceptual
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22. Conceptual
23. The correct answers are
 - b) continuous if there is no charge at that point
 - d) discontinuous if there is a charge at that point
24. Conceptual
25. Conceptual
26. Conceptual
27. (a) a larger angle to be subtended by the object at the eye and hence viewed in greater detail.
 - (b) the formation of a virtual erect image
28. Conceptual
29. Conceptual
30. Conceptual



CHEMISTRY

31. Greater the magnitude of charge on the electrolyte added more will be the coagulating power towards oppositely charged colloidal solutions.
32. Extent of physical adsorption is directly proportional to critical temperature of a gas.
33. In an atom the Z_{eff} experienced by the electron decrease with increase in azimuthal quantum number.
34. In pentaacetate form of glucose as it cannot revert back in to open chain form with free aldehyde group
35. For alkali metals melting and boiling points decreases in the order $F > Cl > Br > I$
36. Magnetic moment is directly proportional to number of unpaired electrons available
37. 
38. NCERT
39. P is a tertiary alcohol, which is not oxidized by chromic an hydride.
40. Addition of inert gas at constant temperature and pressure will favour the reaction where more number of moles of reaction where more number of moles of gases are prepared
41.
$$CH_3-CH_2-\overset{\overset{O}{\parallel}}{C}-CH_3 \xrightarrow{HCN} CH_3-CH_2-\overset{\overset{OH}{|}}{\underset{\underset{CN}{|}}{C}}-CH_3$$
42. NCERT
43. Greater the splitting energy lower will be the wavelength of radiation absorbed
44. Conceptual
45. $LiAlH_4$ reduces both $>C=O$ as well as $-COOH$ to alcohols, while $NaBH_4$ reduces only $>C=O$ without affecting $-COOH$.
46. Chromic acid will oxidise primary alcohol in to carboxylic acid.
47. Conceptual
48. LiH, CaH_2, AlH_3, SiH_4
49. For an irreversible spontaneous process $(dS) > 0$ and $(dG) < 0$.
50. Localized lone pair on nitrogen atom and no inversion will make it a better base.
51. Chloramphenicol, Ofloxacin, Ampicillin, Amoxycillin
52. $3Pt + 16H^+ + 4NO_3^- + 18Cl^- \xrightarrow{\Delta} 3[PtCl_6]^{2-} + 4NO + 8H_2O$
53. I, iv, vii
54. CCl_4, SF_6
55. K and M = 0; L=2; N=4
56. Bronze $Cu + Sn$
57. $CH_2 = CH - CH_2Cl, p - NO_2C_6H_5CH_2Cl, CH_3Cl$
58. Statements-I,II,III are correct
59. Conceptual
60. $CCl_3COOH, C_6H_5COOH, HCOOH, (COOH)_2, CH_3COCOCH_3, (2,4,6-trinitro phenol)$



MATHEMATICS

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90. Conceptual