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| **XII- STD** | **WT -1** | **JEE - KEYS & HINTS** |

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| **PHYSICS** | | | | **CHEMISTRY** | | | | **MATHS** | | | |
| **1** | c | **14** | b | **26** | d | **39** | c | **51** | c | **64** | b |
| **2** | b | **15** | c | **27** | b | **40** | d | **52** | b | **65** | c |
| **3** | a | **16** | b | **28** | c | **41** | c | **53** | b | **66** | b |
| **4** | b | **17** | d | **29** | d | **42** | d | **54** | d | **67** | b |
| **5** | a | **18** | a | **30** | a | **43** | d | **55** | a | **68** | d |
| **6** | b | **19** | d | **31** | d | **44** | a | **56** | a | **69** | d |
| **7** | c | **20** | a | **32** | a | **45** | d | **57** | d | **70** | c |
| **8** | c | **21** | 2 | **33** | a | **46** | 20 | **58** | a | **71** | 99 |
| **9** | c | **22** | 5 | **34** | b | **47** | 6 | **59** | c | **72** | 5 |
| **10** | c | **23** | 2 | **35** | b | **48** | 1 | **60** | c | **73** | 2 |
| **11** | a | **24** | 17 | **36** | c | **49** | 3 | **61** | b | **74** | 7 |
| **12** | d | **25** | 3 | **37** | b | **50** | 50 | **62** | b | **75** | -3 |
| **13** | b |  |  | **38** | a |  |  | **63** | b |  |  |

**HINTS**

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| **53** | On comparing, we get 2x – 3 = x + 2 ⇒ x = 5. |
| **54** |  |
| **55** | ∴ A2 = 2A – I  A3 = A2. A = 2A2 – IA = 2A2 – A = 2(2A – I) – A  = 3A – 2I = 3A – (3 – 1) I  An = nA – (n – 1) I. |
| **56** | If A and B are square matrices of equal degree, then A + B = B + A |
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| **64** |  |
| **65** | v |
| **66** |  |
| **67** |  |
| **68** | The minor of the element multiplied by (-1)i+j where i and j are row and column indices of the element |
| **69** | The **determinant** of a matrix is calculated as the sum of the **products of the elements** of any row or column of the matrix with their corresponding **cofactors**. |
| **70** | a=4,b=2,c=2 |
| **71** |  |
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| **73** |  |
| **74** |  |
| **75** |  |