|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The number of proper subsets of {1,2,3} is |
| ((OPTION\_A)) | 8 |
| ((OPTION\_B)) | 6 |
| ((OPTION\_C)) | 4 |
| ((OPTION\_D)) | 3 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | A |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The total number of terms in the expansion of (x+a)51 - (x-a)51 after simplification is |
| ((OPTION\_A)) | 102 |
| ((OPTION\_B)) | 26 |
| ((OPTION\_C)) | 25 |
| ((OPTION\_D)) | 30 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | B |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | If a relation *R* on the set {1,2,3} be defined by *R=* {(1,1)}*,* then R is |
| ((OPTION\_A)) | Only symmetric |
| ((OPTION\_B)) | Reflexive and symmetric |
| ((OPTION\_C)) | Reflexive and transitive |
| ((OPTION\_D)) | Symmetric and transitive |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The value of (1 - tan215°) / (1 + tan215°) is |
| ((OPTION\_A)) | √3 / 2 |
| ((OPTION\_B)) | 1/2 |
| ((OPTION\_C)) | 1/ √2 |
| ((OPTION\_D)) | 1/√3 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | A |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The value of sin(sin-1(π/12) + cos-1(π/12)) = |
| ((OPTION\_A)) | 2 |
| ((OPTION\_B)) | 1 |
| ((OPTION\_C)) | 2 |
| ((OPTION\_D)) | 0 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | B |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | If y = 4x + k is a tangent to the hyperbola ( x2 / 64 ) - ( y2 / 49) =1, then k= |
| ((OPTION\_A)) | 56 |
| ((OPTION\_B)) | ±500 |
| ((OPTION\_C)) | ±√251 |
| ((OPTION\_D)) | ±√975 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Let A be a square matrix of order 3 × 3, then |5A| = |
| ((OPTION\_A)) | 5|A| |
| ((OPTION\_B)) | 15|A| |
| ((OPTION\_C)) | 125 |A| |
| ((OPTION\_D)) | None of these |
| ((CORRECT\_CHOICE)) (A/B/C/D) | C |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The probability of getting 2 or 3 or 4 from a throw of single dice is |
| ((OPTION\_A)) | 1/6 |
| ((OPTION\_B)) | 2/3 |
| ((OPTION\_C)) | 1/2 |
| ((OPTION\_D)) | none of these |
| ((CORRECT\_CHOICE)) (A/B/C/D) | C |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | ((sin2x) / (1+cosx)) dx |
| ((OPTION\_A)) | x + cosx +c |
| ((OPTION\_B)) | x + sinx + c |
| ((OPTION\_C)) | x - cosx + c |
| ((OPTION\_D)) | None of these |
| ((CORRECT\_CHOICE)) (A/B/C/D) | C |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | ((√20 - √x) / (√x + (√20 - √x)) dx = |
| ((OPTION\_A)) | 20 |
| ((OPTION\_B)) | 10 |
| ((OPTION\_C)) | 5 |
| ((OPTION\_D)) | none of these |
| ((CORRECT\_CHOICE)) (A/B/C/D) | C |
| ((EXPLANATION)) (OPTIONAL) |  |