Unit2

Q: The value of Δe^{6x} **Consider h=1**

(a) $e^{6x}(e^{6h}-1)$ (b) $e^{6x}(e^{xh}-1)$ (c) $e^{6x}(e^{6}-1)$ (d) $e^{6x}(e^{x}-1)$

Q: The value of $\Delta[logx]$

(a) $log(1+h/x)$ (b) $log(1+1/x)$ (c) $log(x+x/h)$ (d) $log(x+h/x)$

Q: The value of $E^5(3x-2)$

(a) $5(x+5h)-2$ (b) $3(x+5h)-2$ (c) $5(x+5h)-2$ (d) $2(x+2h)-2$

Q: if $A=\{a,b,c\}$ then $n(A\times A)=?$

(a) 4 (b) 16 (c) 8 (d) 9

Q: if $A=\{a,b,c\}$ then total *number of relations from A to A* =?

(a) 2^{16} (b) 2^9 (c) 4^4 (d) 4^4

Q: *Consider the given relation* R *, defined on* $A=\{1,2,3,4\}$
$R=\{(1,1),(1,2),(2,1),(2,2),(3,4),(4,1),(4,4)\}$, *then which one of the following is true*

(a) *R is reflexive* (b) *R is symmetric* (c) *R is not transitive* (d) *R is antisymmetric*

Q: Which element of the *Poset* $(\{2,3,4,6,9,12,18,36,48,60,72\}, |)$ is greatest

(a) 48, 60, and 72 (b) 72 and 60 (c) 60 and 72 (d) does not exist

Q: Which element/s of the *Poset* $(\{2,3,4,6,9,12,18,36,48,60,72\}, |)$ is/are Maximal

(a) 72, 60and 48 (b) 72, 60 (c) 60, 48 (d) 72, 48

Q: Which element/s of the *Poset* $(\{2,3,4,6,9,12,18,36,48,60,72\}, |)$ is/are minimal

(a) 2 (b) 3, 2 (c) 3 (d) Do not exist

Q: Which elements of the *Poset* $(\{2,3,4,6,9,12,18,36,48,60,72\}, |)$ are upper bound of {36, 60}

(a) 72, 60and 48 (b) 3, 2 (c) 3 (d) Do not exist

Q: Which element/s of the *Poset* $(\{2,3,4,6,9,12,18,36,48,60,72\}, |)$ is/are lower bound of {6, 3}

(a) 2, 3 (b) 6 (c) 3 (d) Do not exist

Q: The Hasse diagram of the *Poset* $(\{2,3,4,6,9,12,18,36,48,60,72\}, |)$ is

(a) A Lattice (b) A bounded lattice (c) Not a Lattice (d) None of these

Q: *Let R be a relation on the set of all integers defined by* $R = \{(a,b)|a < b\}$ Then which one of following is true

$(a)R$ *is reflexive* $(b)R$ *is symmetric* $(c)R$ *is transitive* $(d)R$ *is partial order*

Q: *Let R be a relation on the set of all students of* $K1420$ *defined by* $R = \{(a,b)|a$ *and b are from same state* $\}$ Then which one of following is true

$(a)R$ *is not reflexive* $(b)R$ *is not symmetric* $(c)R$ *is equivalence* $(d)R$ *is partial order*