MCQ1: Let A consist of numbers 1, 3, 5, 7, 11, 13 and 17. Then, the set can be written as A =
Answer: 1,3,5,13,17

MCQ2: Let B=x|x2<20 the number of elements in B is ………….
Answer: 2

MCQ3: Let Cx|x is all prime numbers less than 20<
Answer: 6

MCQ4: Let D=x|4≤x<9. Find n(D).
Answer: 5

MCQ5: Let E=x|0<x≤1. The number of element in E is………
Answer: 2

MCQ6: Given that F=x|x is a letter in the word 'state'</mfenced&g
Answer: 5

MCQ7: Given that A=1,2,3,5,7,11 and B=2,3,7,11. Find nAUB.
Answer: 1

MCQ8: Given that B=x|x is the odd numbers less than 10 and &
Answer: 10

MCQ9: Given that F=x|x-3x+2=0, G =1,2,2,1. H =1,2. Find n<
Answer: 4

MCQ10: Given that L=3,4,5 and M=5,3,4. Then, η(LUM)= n(L∩M)
Answer: 3

MCQ11: Let L=1,2 and let M=1,2,3. From the question which one is correct?
Answer: L is not comparable to M

MCQ12: If M is a subset of N and N is a subset of P, then, M is a subset of P that is ..
Answer: MCN and MCP implies MCN

MCQ13: Let P=a,b,c,d. Find the number of subset of P.
Answer: 4

MCQ14: Let P=1,3,7,8 and Q=2,4,7,9. Find n(P∩Q).
Answer: 8

MCQ15: Let X=2,4,6,9 and Y=1,3,4. Find n(X∩Y).
Answer: 1

MCQ16: IfX=1,x,3,4 and Y=r,s,t, n(X∩Y) is …
Answer: 4

MCQ17: If X⊂Y and X≠Y, then X is a proper subset of ..
Answer: Y

MCQ18: Let E=2,4,6,… and E1={1,3,5,…}, then EUE1 is a set of ……. numbers
Answer: complex

MCQ19: Given A=1,2,3,4, B=2,3,5, and C=2,4,6, find A<mo&g
Answer: 1,2,3,4,5,6

MCQ20: If A={2,4,6,8} B=xx-2=0 C=x2≤x<8</
Answer: 5

MCQ21: If X=1,2,3 Y={3,4,5} and Z=xx odd number</mi&

Answer: 1

MCQ22: In the set of real numbers, which of these is true?
Answer: N⊂Z⊂Q⊂R

MCQ23: In geometry, the distance between two points that real numbers, x and y is |x – y| = ….
Answer: |x – y|

MCQ24: Consider x={x|2<x≤7}, this set is described as ……….
Answer: open interval

MCQ25: Given that M={x|3<x<7}, the set has ……..interval.
Answer: closed-open

MCQ26: If B={x|2≤x≤9}, B can be described as ……..interval
Answer: closed-open

MCQ27: A set of the form x={x|x>1} is called a set of …….intervals.
Answer: definite

MCQ28: A set of the form M={x|x≤5} is an infinite set of interval written as M = ?
Answer: -∞, 5

MCQ29: A set M is bounded if there exists a positive number M such that ……… for all X∈M
Answer: X<M

MCQ30: Let fx=x2 where x is a real number and let gx=x2 where x is a complex number. Then, f is not equal to g because they have ……….domains
Answer: different

MCQ31: If f:B→D, then f is called a one-one or ……..function.
Answer: subjective

MCQ32: Let f be 'a' function of X into Y, and let 'b' ∈ Y. Then, the inverse of 'b' denoted by f-1(b) therefore,
Answer: f1b={x|x∈X;fx=b}

MCQ33: Let f:A→B is one-to-one and onto, then f-1
Answer: A inverse function exists

MCQ34: Let f:R→R be defined by fx=10 then f is a ………..since assigned to every element.
Answer: product

MCQ35: Let the function f:X→Y be one-one and onto or f1:Y→X exist, then f-1∘f1 and f&lt
Answer: the identity function on X and on Y

MCQ36: If ordered pairs (x+y,1) and (3,x-y) are equal, find x and y
Answer: (3,1)

MCQ37: Find the value of annuity N10000 for a period of 5 years at 5% at the beginning of year 2020.
Answer: N 58019

MCQ38: The final value of a 10 year annuity due with nominal annual interest rate 9% and monthly payments of N10000.
Answer: N165.60

MCQ39: Find the operating cash flow indicator ratio given that the management of NOUN has free cash flow of N25 billion and the net cash provided expenditure for

a particular period stands at N35 billion.
Answer: 71.43%

MCQ40: Financial statements that are cash flow computations can be done by …………
method(s).
Answer: Direct and Indirect

MCQ41: Find the angle between lines 2y = 3x – 8 and y = x.5 + 7.5
Answer: 1350

MCQ42: Given that ∫2 3f(x)dx, find the integral calculus
Answer: 52

MCQ43: Find ∫15x2dx
Answer: 4114

MCQ44: If dydx=2x+3, find y.
Answer: A x2+3x+c

MCQ45: Solve the differential equation x2-2x4 at y=0, x=1
Answer: y=1x+35x5+35

MCQ46: Evaluate ∫e4xdx
Answer: 4e4x+C

MCQ47: Evaluate ∫dx3-4x
Answer: 4Ln3-4x+C

MCQ48: ∫sin3×dx
Answer: -cosx+cos3x3+c

MCQ49: Solve x-y=10 and x+y=10. Simultaneously
Answer: – 10, 0

MCQ50: Solve x-y=10 and x+y=10. Simultaneously,
Answer: – 10, 0

Fill in the Blank (FBQs):
FBQ1: If A=x|x2=16 then A is the set of x such that x squared equals 16 or
………………………………………………
Answer: A = {4,4}

FBQ2: If B=x|x-2=8 means B is the set of x such that x …………………………………………
Answer: *minus 2 equals 8*

FBQ3: If D=x|x number of Federal universitie</m
Answer: *{6}*

FBQ4: S=x|x number of state capitals in Niger</m
Answer: *36*

FBQ5: Two sets A and B are equal if ……………………….
Answer: *A = B*

FBQ6: The null set ∅ is considered to be ………………………………..
Answer: *Subset of every set*

FBQ7: …………………………….is a subset of itself
Answer: *every set*

FBQ8: Two sets X and Y are …………………………….if X⊂Y or Y⊂X
Answer: *Comparable*

FBQ9: Two sets X and Y are ……………………………. if X⊄Y or Y⊄X

Answer: *not comparable*

FBQ10: Given the set 1, 2, 1, 2, {3,4}
Answer: *Family of sets*

FBQ11: Let M=a,1, 2, 3, 4,5, then, M is not family of sets e.g. a,
……………………………………
Answer: *3*

FBQ12: Solve x-y=10 and x+y=10. Simultaneously,
Answer: *10, 0*

FBQ13: Two sets M and N are equal if and only if every element …… and every N belongs to M
Answer: *in M belongs to N*

FBQ14: The union of sets A and B is the set of all elements which belong to
Answer: *A or B or both*

FBQ15: A∪B means ………………………………………
Answer: *A union B*

FBQ16: A∩B means _____ or set of all elements which belong to both A and B only
Answer: *A intersection B*

FBQ17: The set A-B, A∩B, (B-A) are mutually _____that is intersection of any two sets is the null
Answer: *Disjoint*

FBQ18: …………………are positive integers
Answer: *Natural numbers*

FBQ19: The notation x&lt;10 means that x is a real number which is _____is hence x lies to the left of 10
Answer: *less than 10*

FBQ20: The elements of the set A=x|2&lt;x&lt;7 are …………
Answer: *{3,4,5,6}*

FBQ21: The set of the form A=x|x&gt;1 can be written as…….
Answer: *{2,3,4………}*

FBQ22: A function f of A and B is called ……………. if the same element of b∈B is assigned to every element in A.
Answer: *constant function*

FBQ23: Let f be a function of A and B, and let b∈B, then _____ is denoted byf1(b)
Answer: *inverse of b*

FBQ24: A series or fixed payments required from you or paid to you at a specified frequency over the course of a fixed time period is called_____
Answer: *Annuities*

FBQ25: A_____ is an annuity for which the payments continue forever.
Answer: *Perpetuity*

FBQ26: _____is the movement of money into or out of a business, project or financial product.
Answer: *cash flow*

FBQ27: A fund into which a company sets aside money overtime, in order to retire its preferred stock, bonds or debentures is called _____

Answer: *sinking fund*

FBQ28: Interest that is computed on the previously accumulated interest as well as on the principal is called_____
Answer: *compound interest*

FBQ29: One of the disadvantages of LP model is that ____are enormous even when assistance of large digital computers is available
Answer: *Computational difficulties*

FBQ30: Two matrices A and B are said to be equal, if they have the _____ and their corresponding entries are equal
Answer: *same dimension*

FBQ31: The set of all possible outcome of a random experiment is called_____ experiment
Answer: *Random*

FBQ32: _____is an event that will never happen.
Answer: *impossible event*

FBQ33: If in two events, one of them precludes or prevents the occurrence of the other, then, it is called_____ events
Answer: *mutually exclusive*

FBQ34: One important property of the integers is that they are closed under the operations ……… and ………..
Answer: *multiplication, subtraction*

FBQ35: Rational numbers are closed under the operations addition, subtraction and multiplication but also division except_____
Answer: *Zero*

FBQ36: The irrational numbers are those real numbers which are not rational. True or False
Answer: *True*

FBQ37: The irrational numbers φ are complement of rational numbers R. True or False
Answer: *True*

FBQ38: The notation 3&lt;x&lt;9 means x lies between 3 and 9 on the real line. True or False
Answer: *True*

FBQ39: If f maps A into B, the f is called a one-one or ……………….
Answer: *infective function*

FBQ40: If f maps A onto B, that is if every member of B appears as the image of at least one element of A, then if is onto or …………
Answer: *subjective function*

FBQ41: Let W={days of the week} then W is ……… set
Answer: *Finite*

FBQ42: Let A={a,b} and D={a,c,d}, then sets A and D are not ………. since C∉A and b ∉D
Answer: *Comparable*

FBQ43: The family of all subsets of any set is called ………..
Answer: *power set*

FBQ44: Solve x-y=10 and x+y=10. Simultaneously
Answer: *0, – 10*

FBQ45: The difference of sets M and N denoted by M – N, is the set of elements which belong to M but which do not belong to N. True or False.
Answer: *True*

FBQ46: A function of A onto B is called a ………… if the same element of b€B is assigned to carry every element in A.
Answer: *constant function*

FBQ47: Let f:x→y and g:y→Z be two functions. Then, functions f and g denoted g.f:x→z is called …………………..
Answer: *product function*

FBQ48: An ………………… is the one whose payments are made at the beginning of each period.
Answer: *annuity-due*

FBQ49: A …………. is a contract between you and an issuer whereby you agree to give the issuer principal and in return the issuer guarantees you variable payment over time.
Answer: *variable annuity*

FBQ50: An accounting statement called the …………………. which shows the amount of cash generated and used by a company in a given period.
Answer: *statement of cash flows*