

FBQ1: If A and B are independent events with $\Pr(A) = 0.05$ and $\Pr(B) = 0.65$. Then $\Pr(A/B)$ gives
 Answer: 0.325

FBQ2: The conditional probability of B given A is represented by
 Answer: $\Pr(A/B)$

FBQ3: A die is rolled once; the probability of getting an odd number is
 Answer: $\frac{1}{2}$

FBQ4: A die is rolled once, the probability of getting an even number is
 Answer: $\frac{1}{2}$

FBQ5: is a probability model that establishes abstract relationship between the events of a random experiment, and as such, could be used in calculating their probabilities
 Answer: Axiomatic probability

FBQ6: is a probability rule that describes how personal opinion evolves with experience.
 Answer: Bayes's rule

FBQ7: probability is a model for quantifying the strength or personal options
 Answer: Bayesian

FBQ8: If $S = \{1, 2, 3, 4, 5, 6\}$. The probability of getting a number less than 6 is
 Answer: $\frac{5}{6}$

FBQ9: The set of all possible subset of a sample space is called the
 Answer: event space

FBQ10: The of an event A is the event that A does not occur, and thus consist of all those elements in the sample space that are not in A.
 Answer: Complement

FBQ11: Let $P = \{x : P \text{ is even}\}$, $Q = \{x : Q \text{ is odd}\}$. Then $P \cap Q = \emptyset$, which implies
 Answer: P and Q are mutually exclusive

FBQ12: An event that must happen is called
 Answer: sure event

FBQ13: In tossing a die- $T = \{x : 1 \leq x \leq 6\}$ is a/an event
 Answer: Sure

FBQ14: A set M is said to be of A and B, if the elements of M are the elements common to both A and B
 Answer: Intersection

FBQ15: The set of all possible outcomes is called

Answer: sample space

FBQ16: The elements of sample space are called ω .

Answer: Events

FBQ17: ω is an experiment which the outcome is unpredictable

Answer: Random experiment

FBQ18: If A is an $(m \times n)$ matrix and k is a real number (or scalar), then kA is ω multiplication

Answer: Scalar

FBQ19: A publishing company finds that the cost of publishing each copy of a magazine is N0.38. The revenue from dealers of the magazine is N0.35 per copy. The advertising revenue is 10% of the revenue received from dealers for all copies sold beyond 10,000 units. The least number of copies which must be sold so as to have a positive profit will be ω .

Answer: 70,001

FBQ20: The current ratio of any business organisation is the ratio of its current assets to its current liabilities. The Managing Director of ACE Equipment Co. has decided to obtain a short-term loan to build up inventory. The company has current assets of N350,000 and current liabilities of N80,000. How much can the Managing Director borrow if the company's current ratio must be not less than 2.5?

Answer: N100,000

FBQ21: A function f , is said to be a linear function if $f(x)$ can be written in a form ω

Answer: $f(x) = ax + b$

FBQ22: A system of equations with two or more unknown is known as a ω

Answer: simultaneous equation

FBQ23: The present value of a 5 year annuity with nominal annual interest rate 12% and monthly payments of N100 is ω

Answer: N4,495.50

FBQ24: Deposits in savings, rent or lease payments, and insurance premiums are examples of ω due

Answer: Annuities

FBQ25: A rectangular array of numbers arranged in rows and columns is called _____

Answer: Matrix

FBQ26: The final value of a 7 year annuity-due with nominal annual interest rate 9% and monthly payments of N100 is ω

Answer: N11,730.01

FBQ27: ω is an annuity for which the payments continue forever

Answer: Perpetuity

FBQ28: A fixed annuity is a fixed annuity that offers a guarantee that you can never receive less than 100% of your investment with no penalties or fluctuations in the interest rate market can impact your principal should you surrender.

Answer: Guaranteed Return Annuities

FBQ29: A variable annuity is a contract between you and an issuer whereby you agree to give the issuer principal and in return the issuer guarantees you variable payments over time.

Answer: A variable annuity

FBQ30: Linear programming involves with the optimization (maximization or minimization) of a function of variables known as objective function, subject to a set of linear equations and/or inequalities known as constraints.

Answer: Linear programme

FBQ31: Assembly-line balancing relates to a category of problems wherein the final product has a number of different components assembled together.

Answer: Assembly-line balancing

FBQ32: No-surrender annuities allow you to withdraw either your interest earnings or up to 15% per year without a penalty.

Answer: No-surrender annuities

FBQ33: Cash flow is the movement of money into or out of a business, project, or financial product.

Answer: Cash flow

FBQ34: Measurement of cash flow can be used for calculating other parameters that give information on a company's value and situation.

Answer: value and situation

FBQ35: Statement of cash flow shows the amount of cash generated and used by a company in a given period.

Answer: Statement of cash flow

FBQ36: Hammett, Inc. has sales of N19,570, cost of N9460, depreciation expense of N2,130, and interest expense of N1620. If the tax rate is 35 per cent, the operating cash flow is N10,000.

Answer: Statement of cash flow

FBQ37: Free cash flow is most often defined as operating cash flow minus capital expenditures, which, in analytical terms, are considered to be an essential outflow of funds to maintain a company's competitiveness and efficiency.

Answer: Free cash flow

FBQ38: A fund into which a company sets aside money over time, in order to retire its preferred stock, bonds or debentures is called a sinking fund.

Answer: Sinking fund

FBQ39: A sinking fund is a fund established by an economic entity by setting aside revenue over a period of time to fund a future capital expense, or repayment of a long-term debt.

Answer: Sinking fund

FBQ40: A company wishes to spend N40000 for new equipment and decides to set up a sinking fund to accumulate this money over a 3 year period. If payments are to be made to the fund quarterly, with interest compounded quarterly at an annual rate of 5%, how large should the payments be?

Answer: N3,110.42

FBQ41: Interest that is computed on the principal alone is called simple interest.

Answer: simple interest

FBQ42: Suppose you have to pay simple interest at a rate of %5 per year on a 2-year loan of N300. The interest charged will be $300(0.05)(2) = N30$ and the total amount owed at the end of the 2-year period will be N330.

Answer: N330

FBQ43: Interest that is computed on the previously accumulated interest as well as on the principal is called compound interest.

Answer: compound interest

FBQ44: Suppose you invest N2000 at an annual interest rate of % 6. The balance at the end of 1 year if interest is compounded yearly is N2,120.

Answer: N2, 120

FBQ45: Suppose you invest N2000 at an annual interest rate of % 6. The balance at the end of 1 year if interest is compounded semi-annually is N2,122.73.

Answer: N2, 122.73

FBQ46: Debt instruments are a way for markets and participants to easily transfer the ownership of debt obligations from one party to another.

Answer: Debt instruments

FBQ47: The rate of interest that a bond pays to the bondholder is called the coupon rate.

Answer: the coupon rate

FBQ48: The coupon rate is the stated annualized interest rate that the bond issuer is contractually obligated to pay to the bondholder.

Answer: The coupon rate

FBQ49: A floating rate bond has a coupon rate that is pegged to a benchmark, such as libor, and is adjusted periodically.

Answer: A floating rate bond

FBQ50: Media buying involves the selection of advertising mix among different advertising media such as T.V., radio, magazines and newspapers that will maximize

public exposure to company's product

Answer: Media selection problem

MCQ1: If every element which belongs to A also belongs to B and if every element which belongs to B also belongs to A, then the sets A and B are

Answer: Equal

MCQ2: Let $A = \{1, 2, 3, 4\}$ and $B = \{3, 1, 4, 2\}$, then

Answer: $A = B$

MCQ3: Let $E = \{x \mid x^2 \in 3x = -2\}$, $F = \{2, 1\}$ and $G = \{1, 2, 2, 1\}$. Which of the following is true?

Answer: $E = F = G$

MCQ4: A set which contains no elements is called \emptyset .

Answer: a null set

MCQ5: Let A be the set of people in the world who are older than 200 years. According to known statistics A is

Answer: a null set

MCQ6: Let $G = \{x \mid x \text{ is even}\}$, and let $F = \{x \mid x \text{ is a positive power of } 2\}$, then

Answer: $F \subset G$

MCQ7: Let $R = \{a, b\}$ and $S = \{b, c, d\}$. Then

Answer: R and S are not comparable

MCQ8: In any application of the theory of sets, all the sets under investigation will likely be subsets of a fixed set. We call this set

Answer: universe of discourse

MCQ9: The family of all the subsets of any set S is called

Answer: the power set of S

MCQ10: Let $M = \{a, b\}$, Then 2^M is

Answer: $\{\{a, b\}, \{a\}, \{b\}, \emptyset\}$

MCQ11: If sets A and B have no elements in common, then we say that A and B are

Answer: Disjoint

MCQ12: Let $P(x)$ be any statement and let A be any set. Then there exists a set: $B = \{a \mid a \in A, P(a) \text{ is true}\}$. The statement represents the

Answer: axiom of specification

MCQ13: In set theory, the denotation $A \cup B$ is usually read

Answer: A union B

MCQ14: Let P be the set of positive real numbers and let Q be the set of negative real numbers. The union of P and Q, consist of all the real numbers except

Answer: 0

MCQ15: $A \cap B$ is the set of elements which are common to A and B, that is, those elements which belong to A and which belong to B.

Answer: The intersection of sets A and B

MCQ16: Let $S = \{a, b, c, d\}$ and $T = \{f, b, d, g\}$. Then $S \cap T$ is

Answer: $\{b, d\}$

MCQ17: If A and B are disjoint, then the intersection of A and B is

Answer: Null

MCQ18: $A - B$ is the set of elements which belong to A but which do not belong to B.

Answer: The difference of sets A and B

MCQ19: Let R be the set of real numbers and let Q be the set of rational numbers. The $R \setminus Q$ consist of \mathbb{R}

Answer: irrational numbers

MCQ20: \hat{A} The sets $(A \cap B)$, $A \cap B$ and $(B \cap A)$ are mutually disjoint implies \hat{A}

Answer: the intersection of any two is the null set

MCQ21: The difference of the universal set U and A is termed the \hat{A}

Answer: complement of A

MCQ22: Let $E = \{2, 4, 6, \dots\}$. What is the complement of the set E?

Answer: the odd numbers

MCQ23: The \mathbb{Q} are those real numbers, which can be expressed as the ratio of two integers.

Answer: rational numbers

MCQ24: \hat{A} Examples of irrational numbers are \mathbb{R}

Answer: $\sqrt{2}, \sqrt{3}, \dots$

MCQ25: \hat{A} The real number a is less than the real number b if \hat{A}

Answer: $b - a$ is a positive number

MCQ26: Given $A_1 = \{x: 2 \leq x \leq 5\}$, $A_2 = \{x: 2 \leq x \leq 5\}$, $A_3 = \{x: 2 \leq x \leq 5\}$ $A_4 = \{x: 2 \leq x \leq 5\}$. Which of the statement is true

Answer: A_1 is an open interval, A_2 is a closed interval, A_3 and A_4 are open-closed and closed-open

MCQ27: \hat{A} Set of the form $A = \{x: x \geq 1\}$ $B = \{x: x \geq 2\}$, $C = \{x: x \leq 3\}$ are called \hat{A}

Answer: infinite intervals

MCQ28: Set A is bounded if there exists a positive number M such that

Answer: $x \leq M$

MCQ29: Let $f: A \rightarrow B$, which reads f is a function of A onto B . The set A and B are called the

Answer: domain and codomain

MCQ30: Let f assign to each real number its square, that is, for every real number x let $f(x) = x^2$. The domain and co-domain of f are

Answer: both the real numbers

MCQ31: If the domain and co-domain of a function are both the same set, then f is frequently called

Answer: an operator or transformation on A

MCQ32: If f and g are functions defined on the same domain D and if $f(a) = g(a)$ for every $a \in D$, then the functions f and g are

Answer: equal

MCQ33: Let $f(x) = x^2$ where x is a real number. Let $g(x) = x^2$ where x is a complex number. Which of the statement is true

Answer: the function f is not equal to g since they have different domains

MCQ34: Let the function $f: \mathbb{R} \rightarrow \mathbb{R}$ be defined by the formula $f(x) = x^2$. Then the range of f consists of

Answer: the positive real numbers and zero

MCQ35: $f: A \rightarrow B$ is injective if $f(a) = f(a')$ implies $a = a'$ or, equivalently, $a \neq a'$ implies $f(a) \neq f(a')$.

Answer: injective functions

MCQ36: Let f map A into B . Then f is called a surjection if different elements in B are assigned to different elements in A .

Answer: injective functions

MCQ37: Let the function $f: \mathbb{R} \rightarrow \mathbb{R}$ be defined by the formula $f(x) = x^2$. Then f is

Answer: not a one-one function

MCQ38: Let the function $f: \mathbb{R} \rightarrow \mathbb{R}$ be defined by the formula $f(x) = x^3$. Then f is

Answer: not a one-one function

MCQ39: Let f be a function of A into B . If every member of B appears as the image of at least one element of A , then we say the function f is

Answer: identity functions

MCQ40: Let A be any set. If f assign to each element in A the element itself, then f is called

Answer: constant function

MCQ41: A function f of A onto B is called a surjection if the same element of B is assigned to every element in A .

Answer: surjective functions

MCQ42: Let f be a function of A into B , and let $b \in B$. Then, $f^{-1}(b) = \{x: x \in A; f(x) = b\}$ defines

Answer: inverse functions

MCQ43: Annuities are essentially a series or fixed payments required from you or paid to you at a specified frequency over the course of a fixed time period.

Answer: Annuities

MCQ44: Annuities are primarily used as a means of securing a steady cash flow for an individual during their retirement years

Answer: Annuities

MCQ45: Straight bonds usually pay coupon payments at the end of every six months until the bonds maturity date is an example of

Answer: ordinary simple interest

MCQ46: Payments that are required at the beginning of each period denotes

Answer: Annuity Due

MCQ47: The valuation of an annuity entails concepts such as

Answer: time value of money, interest rate, and future value

MCQ48: Mortgage payments are

Answer: annuity-immediate

MCQ49: If the original principal is p Naira and if the interest is compounded annually at the rate of r per year, then at the end of the first year the new principal will be

Answer: $p(1+r)$

MCQ50: The general formula for compound interest is given as

Answer: $p(1+i)^n$