

Course Name	Scientific English			Time	2 H	
Course Code	1 E			Date	25 /5/2024	
Level	1st	2 nd semester final exam (Academic year 2023-2024)		Number of Pages	7	
Specialization	Mathematics			Total Marks	70	

D) Choose the correct answer (40 marks)

1-	is an ordered list of numbers that has a common ratio between consecutive terms.			
(A)	Set	(C)	Odd numbers	
(B)	Geometric sequence	(D)	Factorial	

2-	is a line that intersects two or more lines.			
(A)	Transversal	(C)	Chord	
(B)	Diameter	(D)	Diagonal	

3-	is a solid figure with all points the same distance from the center.			
(A)	Sphere	(C)	Cone	
(B)	Circle	(D)	Helix	

4- In a right triangle, the side opposite the right angle; the longest side in a right triangle is called.....				
(A)	diameter	(C)	diagonal	
(B)	chord	(D)	hypotenuse	

5-	are two angles whose measures have a sum of 180°.			
(A)	Supplementary angles	(C)	Complementary angles	
(B)	Equal angles	(D)	zero angles	

6- The set of whole numbers and their opposites is called.....				
(A)	whole numbers	(C)	real numbers	
(B)	Integers	(D)	natural numbers	

7- A triangle with two congruent sides is called.....				
(A)	isosceles triangle	(C)	right triangle	
(B)	pentagon	(D)	scalene triangle	

8- The number that is multiplied by the variable in an algebraic expression is called.....				
(A)	number	(C)	variable	
(B)	constant	(D)	coefficient	

9-	is a solid figure with two parallel, congruent circular bases connected by a curved surface.			
(A)	Cylinder	(C)	Cone	
(B)	Cube	(D)	Helix	

10-	is an expression that is a number, a variable, or the product of a number and one or more variables.			
(A)	Binomial	(C)	Sequence	
(B)	Monomial	(D)	Set	

11-	is a polygon with 6 sides and 6 angles.			
(A)	Octagon	(C)	Hexagon	
(B)	Pentagon	(D)	Quadrilateral	

12-	is a quadrilateral with only one pair of parallel sides.			
(A)	Square	(C)	Triangle	
(B)	Rectangle	(D)	Trapezoid	

13-	is a shape that does not begin and end at the same point			
(A)	Close figure	(C)	Triangle	
(B)	Open figure	(D)	Circle	

14-	is the sum of the areas of all the faces, or surfaces, of a solid figure.			
(A)	Volume	(C)	Surface area	
(B)	Distance	(D)	Length	

15-	is the point on the coordinate plane where the x-axis and the y-axis			
(A)	Origin point	(C)	Refraction point	
(B)	Reflection point	(D)	Center	

16-	The number of square units needed to cover a given surface is called the.....			
(A)	distance	(C)	length	
(B)	volume	(D)	area	

17-	The distance around a circle is called.....			
(A)	area	(C)	circumference	
(B)	diameter	(D)	chord	

18-	 is the sum of a set of numbers divided by the number of the addends.			
(A)	Deviation	(C)	Median	
(B)	Average	(D)	Measure	

19-	 is a square prism with six congruent square faces.			
(A)	Cube	(C)	Cylinder	
(B)	Cone	(D)	Helix	

20-	A chord that passes through the center of a circle is called.....			
(A)	diameter	(C)	chord	
(B)	radius	(D)	circumference	

21-	 is the temperature at which a liquid changes to a solid.			
(A)	Freezing Point	(C)	Boiling point	
(B)	End Point	(D)	Diffusion	

22-	The process by which liquid changes to its vapour on the surface of the liquid and it occurs below boiling point is defined as			
(A)	Evaporation	(C)	Decantation	
(B)	Disalination	(D)	Condensation	

23-	An organic acid containing the carboxyl group (-COOH) is			
(A)	Anhydrous salts	(C)	Biogas	
(B)	Buffer	(D)	Carboxylic acid	

24-	Hydrocarbons having the general formula C_nH_{2n+2} .			
(A)	Alkenes	(C)	Alkyne	
(B)	Alkane	(D)	Alkali	

25-	 is the average distance between the nuclei of two bonded atoms.			
(A)	Bond length	(C)	Bidentate ligand	
(B)	Chemical bond	(D)	Desalination	

26-	The amount of energy that holds the neutrons and protons together in the nucleus of an atom. It's a lot of energy, which is why you don't see nuclei falling apart all over the place.			
(A)	kinetic energy	(C)	Chemical energy	
(B)	Binding energy	(D)	Potential energy	

27-	A substance that dissociates in water to produce hydroxide ions (OH^-) is known as			
(A)	Alcohol	(C)	Phenol	
(B)	Acid	(D)	Alkali	

28-	A liquid that resists change in pH by the addition of acid or base.			
(A)	Alcohol	(C)	Buffer	
(B)	A. Ionic liquid	(D)	Acid	

29-	 is a substance which increases the speed of a chemical reaction and remains chemically unchanged at the end of the reaction			
(A)	Carboxylic Acid	(C)	Cation	
(B)	Catalyst	(D)	Alkene	

30-	A chemical cell in which reactants (usually a fuel and oxygen) are continuously supplied to produce electricity directly.			
(A)	Fermentation	(C)	Galvanic cell	
(B)	Filtration	(D)	Fuel Cell	

31- The process of separating an insoluble solid from a liquid or a solution using filter paper.

(A)	Fermentation	(C)	Fractional Distillation
(B)	Filtration	(D)	Boiling

32- A reaction that gives off heat energy to the surroundings.

(A)	Energy profile diagram	(C)	Exothermic reaction
(B)	Esterification	(D)	End point

33- A chemical reaction that involves a carboxylic acid reacting with an alcohol to form an organic compound.

(A)	End Point	(C)	Enzymes
(B)	Esterification	(D)	Energy Profile Diagram

34- Substances that catalyse the chemical reactions in plants and animals often known as biological catalysts.

(A)	Empirical formula	(C)	End point
(B)	Energy profile diagram	(D)	Enzymes

35- shows the types of elements present in the simplest ratio in the compound.

(A)	Electronic configuration	(C)	Empirical formula
(B)	Molecular formula	(D)	Enzymes

36- The arrangement of electrons in the various shells of an atom or a molecule

(A)	Electrode	(C)	Electrolysis
(B)	Electronic configuration	(D)	Crystallisation

37- A reaction in which an atom or molecule takes the place of another atom or molecule in a compound

(A)	Decomposition	(C)	Ductile
(B)	Diffusion	(D)	Displacement reaction

38- A process of obtaining the pure solvent from a solution when the solution is boiled, the solvent is vaporised and the vapour condenses to reform the pure liquid.

(A)	Boiling	(C)	Distillation
(B)	Decomposition	(D)	Condensation

39- The breaking down of long chain hydrocarbon molecules with heat and/or catalyst to produce smaller hydrocarbon molecules and/or hydrogen gas.

(A)	Cracking	(C)	Corrosion
(B)	Crystallisation	(D)	Chemical Property

40- ----- is a temperature reading made relative to absolute zero. We use the unit of Kelvins for these readings.

(A)	Accuracy	(C)	Acid
(B)	Absolute temperature	(D)	Absolute zero

II) Put true or false for the following 30 marks)

1	Parallel lines are lines that never cross and are always at the same distance apart.	(T)	(F)
2	Radius is a line segment with one endpoint at the center of a circle and the other endpoint on the circle.	(T)	(F)
3	Even number is a whole number greater than 1 and whose only factors are itself and 1	(T)	(F)
4	Polygon is an open plane figure formed by three or more-line segments	(T)	(F)
5	Percent is the ratio of a number to 100	(T)	(F)
6	Hundredth is one of one hundred different parts.	(T)	(F)
7	Regular polygon is a polygon in which all sides and all angles are congruent.	(T)	(F)
8	Perpendicular lines are lines that intersect to form acute angles.	(T)	(F)
9	Solid figure is a three-dimensional figure.	(T)	(F)
10	Straight angle is an angle whose measure is 180° .	(T)	(F)
11	Quadrilateral is a three-sided polygon.	(T)	(F)
12	Constant is a letter used to represent one or more numbers in an expression, equation, or inequality.	(T)	(F)

13	Rhombus is a parallelogram whose four sides are not congruent and whose opposite angles are not congruent.	☐	☐
14	Pi (π) is the ratio of the circumference of a circle to the length of its diameter.	☐	☐
15	Angle is a geometric figure formed by two rays that have a common endpoint	☐	☐
16	Neutralisation is the reaction between an acid and a base to produce a salt and water only	☐	☐
17	Oxidation The removal of oxygen, the addition of hydrogen, the gain of electrons, or the decrease in the oxidation state of the substance	☐	☐
18	Activation energy is the minimum energy that reactant particles must possess during their collisions in order for a chemical reaction to occur	☐	☐
19	Voltametry is a method of separating two or more components that dissolve in the same solvent Also used to determine the purity of a sample since they only give one spot on a chromatogram.	☐	☐
20	Chemical change is a change that results in the formation of a new substance	☐	☐
21	Anode is a negatively charged electrode in an electrolytic cell	☐	☐
22	Alkyne with only one carbon-carbon double bond have the general formula C_nH_{2n} Other alkenes that have more than one carbon-carbon double bonds will have different general formula.	☐	☐
23	Atomic number is another term for proton number, it shows the total number of protons in the atom	☐	☐
24	Filtration is the liquid / aqueous solution which passes through the filter paper during filtration	☐	☐
25	Avogadro's Number is the number of particles in one mole of a substance Has the value of 6×10^{23}	☐	☐
26	Bidentate ligand is a ligand that can attach twice to a metal ion.	☐	☐
27	Electrolysis is the process of depositing a layer of metal on another substance using electrolysis	☐	☐
28	Ductile is the ability to be pulled into wires without breaking A physical property of metals	☐	☐
29	Functional group is an atom or group of atoms that gives characteristic properties to an organic compound	☐	☐
30	Global warming is the warming of the earth by greenhouse gases, also known as the Greenhouse Effect	☐	☐

Good Luck