

75. The output of an AND gate is HIGH when:
- Any input is HIGH
 - All inputs are HIGH
 - Any input is LOW
 - Inputs are different
76. Stationary waves are formed due to:
- Superposition of two waves moving in the same direction
 - Reflection of a wave from a rigid boundary
 - Refraction of waves
 - Diffraction of waves

PART - VII (MATHEMATICS)

77 - 88

77. Jansid and Sarfaraz have singing class every 4th day and 10th day respectively. They were both together today; they will be together again after:
- 10 days
 - 14 days
 - 20 days
 - 40 days
78. The amount of money initially deposited into an account or the amount of money borrowed from a lender is called:
- Markup
 - Interest
 - Principal
 - Mortgage
79. A shopkeeper marks his goods 20% above the cost price and offers 15% discount. His gain profit is:
- 0%
 - 2%
 - 3%
 - 5%
80. The degree of the term $5x^3yz$ is:
- 2
 - 3
 - 4
 - Undefined
81. The point of intersection of all three internal bisectors of the angles is called:
- Centroid
 - Circum-center
 - In-center
 - Ortho-center
82. There are 60 passengers in the first cabin of the train, 100 in the second and 140 in the third cabin. Number of passengers in the 4th cabin is:
- 640
 - 700
 - 740
 - 780
83. The surface area of a cube-shaped cabinet having a length of an edge of 5 units is:
- 25 sq. units
 - 125 sq. units
 - 150 sq. units
 - 30 sq. units
84. I have to work for 500 minutes a day at my workplace. I reach at 9:15 am today, then I should leave at:
- 5:15 am
 - 5:35 am
 - 5:25 am
 - 5:35 pm
85. Prices of Milk and Wheat were in the ratio 3:2. If the price of wheat increases by 50%, then the ratio will be:
- 1:1
 - 3:2
 - 2:3
 - 4:9
86. When a die is rolled twice, the number of sample points will be:
- 6
 - 12
 - 36
 - 72
87. If the increase in one quantity causes a decrease in the other quantity, then they are in:
- Direct Proportion
 - Inverse Proportion
 - Compound Proportion
 - Continued Proportion
88. The roots of the equation $[x^2 - 8x + 16 = 0]$ are:
- Real & Equal
 - Real & Distinct
 - Pure Imaginary
 - Complex Conjugate

PART - VIII (COMPUTER)

89 - 100

89. The number system used by digital computers to process quantitative information is _____.
- Decimal
 - Binary
 - Octal
 - Hexadecimal
90. What do we call a computer program that can spread across computers and networks by making copies of itself?
- Worm
 - Virus
 - Adware
 - Spyware
91. In a Database table, a single row will be called:
- Record
 - Field
 - Property
 - Data type

10. Identify the sentence with correct punctuation:
- Allama Iqbal the poet of the East, is famous for his poetry.
 - Allama Iqbal, the poet of the East is famous for his poetry.
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 - Allama Iqbal, the poet of the East, is famous for his poetry.

PART - II (GENERAL KNOWLEDGE)

11 - 20

11. Identify the continent referred to as the 'Frozen Desert':
- Australia
 - Antarctica
 - Europe
 - Asia
12. The continent is referred to as an 'island continent':
- Asia
 - Africa
 - Australia
 - Antarctica
13. The value of imported goods (e.g., machinery, oil) is significantly higher than the value of exported goods (e.g., textiles, rice). This situation best describes a persistent problem known as:
- National Debt
 - Trade Deficit
 - Inflation
 - Low GDP
14. The Suez Canal connects which two bodies of water:
- Pacific Ocean and Atlantic Ocean
 - Mediterranean Sea and Red Sea
 - Arabian Sea and Bay of Bengal
 - Caribbean Sea and Gulf of Mexico
15. The term 'scarcity' in economics is defined as:
- Having too many resources
 - Abundance of goods
 - No need to make choices
 - Unlimited wants and limited resources
16. The Water Apportionment Accord of 1991 deals with the distribution of water resources among:
- Pakistan and India
 - Agricultural and industrial sectors
 - Urban and rural areas
 - The provinces of Pakistan
17. The Muhammad Ali Bogra Formula was presented as a framework for:
- Economic development
 - A federal constitution
 - Foreign policy
 - Educational reform
18. If a new national campaign successfully encourages the use of locally manufactured goods over imported luxury items, the most direct result will be:
- An improvement in the trade balance and support for domestic industries
 - A guaranteed increase in the country's literacy rate and employment ratio
 - A change in the national budget deficit, leading to more unemployment among youth
 - The immediate creation of a regional economic union
19. Analyze the functions of the United Nations organs and determine which is the most powerful in matters of international peace and security, explaining why:
- The General Assembly, because all member nations have equal representation
 - The Security Council, because its five permanent members have veto power
 - The International Court of Justice, because it settles legal disputes
 - The Economic and Social Council, because it controls the UN's budget
20. The climatic region is characterized by severe winters, short cool summers, and vegetation like mosses and lichens is called:
- Equatorial Region
 - Hot Desert Region
 - Tundra Region
 - Mediterranean Region

PART - III (TEACHING & LEARNING PEDAGOGIES)

21 - 40

21. Linking science lessons with the local ecosystem shows:
- Alignment
 - Bloom's level
 - Real-life link
 - Management

22. The ability of a teacher to maintain students' attention by changing voice, gestures, and activities is called:
- Reinforcement
 - Stimulus variation
 - Clarity
 - Explanation
23. Smiles and praise show:
- Probing
 - Reinforcement
 - Questioning
 - Clarity
24. The teacher explains, but students stay confused, which refers to a lack of:
- Probing
 - Variation
 - Clarity
 - Reinforcement
25. The following teaching method uses real-life situations:
- Story Telling
 - Lecturer
 - Case Study
 - Demonstration
26. Internal communications within institutions are done through:
- LAN
 - EDB
 - WAN
 - MMS
27. Emotional self-regulation develops significantly during:
- Infancy
 - Early Childhood
 - Adolescence
 - Late Adulthood
28. According to Piaget, the stage in which children begin to think logically about concrete events is called:
- Semiconcretion
 - Preoperational
 - Concrete Operational
 - Formal Operational
29. Performance assessment requires students to demonstrate knowledge and skills, including the processes they use to solve problems. Which of the following is not an example of performance assessment?
- Demonstration
 - Achievement Tests
 - Science Exhibition
 - Academic Portfolio
30. A teacher notices a student excels in lab experiments. Which strategy would best support the student?
- Increase practical demonstrations
 - Assign more readings
 - Provide more diagrams
 - Play audio lectures
31. Two adolescents respond differently to the same peer pressure situation. This suggests differences in:
- Cognitive growth
 - Reflexes
 - Social coping skills
 - Sensory perception
32. The following best defines a Student Learning Outcome:
- A list of teaching activities
 - A specific statement of what a student will achieve
 - A broad curriculum standard
 - An assessment strategy
33. If a teacher assigns a lesson plan of Engineering + Visual Arts, which STEAM skills are applied here?
- Interpersonal and intrapersonal skills
 - Problem-solving and creativity skills
 - Team building skills
 - Collaborative skills
34. The best method to assess students' collaboration during a PBL project is:
- Multiple-choice test sheets
 - Surprise quiz
 - Peer assessment and reflection portfolios
 - Oral viva only
35. Bloom's Digital Taxonomy is:
- A combination of numbers and alphabets
 - A philosophy of emotional intelligence
 - A thinking with tech
 - A Digital Circuits Theory
36. The following statements are about formative assessment, EXCEPT:
- It is used to assign marks and grades at the end of a term or year
 - It is used to revise written drafts based on the feedback
 - It is used to assess student progress during learning
 - It is used to provide information to improve teaching and learning
37. Effective feedback should be:
- Specific, timely, and actionable
 - Given only on summative assessments
 - Comparative ranking of students against each other
 - Primarily positive to avoid hurting students' feelings

49. A report of a newborn with Down syndrome shows an error in gamete formation. This observed condition is most likely the result of:

- a. Improper segregation of homologous chromosomes
- b. Crossing over between non-sister chromatids
- c. Improper cytokinesis between 2 phases of mitosis
- d. Alteration in cell division checkpoints

50. During a field trip in a desert ecosystem, researchers observed a decline in the population of secondary consumers (snakes). The most likely consequence will be:

- a. Increase in the population of primary consumers
- b. Decrease in the population of primary consumers
- c. No effect on the population of primary consumers
- d. Termination of the population of primary consumers

51. The correct sequence of urinary excretion is:

- a. Kidneys → Ureter → Urethra → Urinary Bladder
- b. Kidneys → Urinary Bladder → Ureter → Urethra
- c. Kidneys → Ureter → Urinary Bladder → Urethra
- d. Kidneys → Urethra → Ureter → Urinary Bladder

52. The temperature beyond optimum reduces the enzyme's function because:

- a. It increases substrate bonding
- b. It alters the enzyme's structure
- c. It reduces ATP production
- d. It accelerates substrate product complex formation

PART - V (CHEMISTRY)

33 - 64

53. Which method can be used to separate a mixture of salt and water to obtain both parts of the mixture?

- a. Crystallization
- b. Distillation
- c. Evaporation
- d. Filtration

54. Work done by a thermodynamic system is a state function:

- a. True
- b. False
- c. Only sometimes
- d. Maximum time

55. Electricity is passed through concentrated aqueous Sodium Chloride. Inert electrodes are used:



concentrated NaCl(aq)

What is formed at the negative electrode?

- a. Chlorine
- b. Oxygen
- c. Hydrogen
- d. Sodium

56. Burning fossil fuels releases heat energy. Which substance is not a fossil fuel?

- a. Coal
- b. Hydrogen
- c. Natural gas
- d. Petroleum

57. What is the maximum mass of Chromium Cr that can be obtained from 76g of Chromium (III) oxide, Cr_2O_3 ?

- a. 48g
- b. 52g
- c. 104g
- d. 152g

58. Which of the following is an example of a neutral salt?

- a. NaCl
- b. Na_2CO_3
- c. CH_3COONa
- d. NH_4Cl