Marks: 150

NOTE: **Time: 2:30 hours**

(i) Attempt all questions. Each question carries one mark. There will be negative marking. Every wrong answer will result in deduction of **1/4 marks.**

(ii) There are **150 questions in this booklet.** Against each question four alternative choices (A), (B), (C) and (D) are given, out of which only one is correct. Indicate your choice of answer by Darkening the suitable circle with Black/Blue **Ball Pen** in the OMR answer sheet supplied to you separately.

[ENGLISH/GK/MENTAL APTITUDE]

Fill in the blanks with suitable tense from the alternatives in the following questions:

1. This work ought to have _____ long ago.
   (A) done
   (B) had done
   (C) been done
   (D) being done

2. Usually I _____ parties but I_____ this one very much.
   (A) enjoy/am not enjoying
   (B) am enjoying/ haven't enjoyed
   (C) enjoy/ don't enjoy
   (D) enjoyed/ haven't enjoyed

3. When he heard the accusations against him, the man _____ that he himself was the   actual victim of the crime.
   (A) alleged
   (B) was alleged
   (C) has alleged
   (D) will be alleged

4. They didn't take my remarks seriously. In fact_____
   (A) they were thinking I joked.
   (B) they thought I was joking.
   (C) they thought I joked.
   (D) They were thinking I was joking.

Fill in the blanks with suitable preposition from the alternatives in the following questions:

5. I looked this word _____ in the dictionary, but I still don't understand it.
   (A) from
   (B) over
   (C) on
   (D) up

6. My house is _____ the end of the street_____ the right.
   (A) at - on
   (B) at - in
   (C) in - on
   (D) in – at

7. Have you read the article_____ Times Magazine_____Google.
   (A) from - on
   (B) to - on
   (C) in - on
   (D) on –on

8. A good judge never gropes _____ the conclusion.
   (A) to
   (B) for
   (C) with
   (D) on

3

In each of the following questions, a sentence has been given in Active (or Passive) Voice. Out of the four alternatives suggested select the one which best expresses the same sentence in Passive (or Active) Voice:

9. The residents celebrated the Independence Day.
   (A) The Independence Day is celebrated by the residents.
   (B) The Independence Day was celebrated by the residents.
   (C) The Independence Day has been celebrated by the residents.
   (D) Celebration of Independence Day was done by the residents.

10. His behaviour surprised me.
    (A) I was surprised for his behaviour.
    (B) I was surprised at his behaviour.
    (C) I was surprised with his behaviour.
    (D) I was surprised on his behaviour.

11. It is time to learn English.
    (A) It is time to be learnt English.
    (B) It is time for English to be learnt.
    (C) It is time for English to learnt.
    (D) It is time to be learn English.

12. She bought a pearl necklace.
    (A) A pearl necklace was bought by her.
    (B) A pearl necklace had been bought by her.
    (C) A pearl necklace had been bought for her by him.
    (D) A pearl necklace was bought for her.

13. Which state government has launched 'Operation Durga' to ensure women safety?
    (A) Punjab
    (B) Uttar Pradesh
    (C) Madhya Pradesh
    (D) Haryana

14. Karang, which has become India's first cashless island, is located in which state?
    (A) Gujarat
    (B) Manipur
    (C) Kerala
    (D) Mizoram

15. For which of the following disciplines is Nobel Prize awarded?
    (A) Physics and Chemistry
    (B) Physiology and Medicine
    (C) Literature, Peace and Economics
    (D) All of the above

16. How many fundamental rights are recognized in the constitutions of India?
    (A) 5
    (B) 6
    (C) 7
    (D) 8

17. Pointing to a photograph, a man said, "I have no brother or sister but that man's father is my father's son." Whose photograph was it?
    (A) His own
    (B) His nephew's
    (C) His father s
    (D) His son's

18. If DISTURB is coded as DTWVUKF, SAMIR will be coded as
    (A) TKOCU
    (B) UCOKT
    (C) KLMNO
    (D) KPCTU

19. Find out the alternative which will replace the question mark.
    Race : Fatigue : : Fast : ?
    (A) Food
    (B) Laziness
    (C) Hunger
    (D) Race

20. If you unscramble the letters YKANE, you will get the name of a
    (A) Mountain Pass
    (B) Warrior
    (C) Flower
    (D) Country

[MATHEMATICS]

21. $\frac{2}{25}$ can be expressed as:
    (A) 0.08
    (B) 8
    (C) 0.8
    (D) None of these

22. $0.\overline{37}$ in the form of $\frac{p}{q}$ is:

  (A) $\frac{37}{100}$

  (B) $\frac{38}{100}$

  (C) $\frac{37}{99}$

  (D) $\frac{38}{99}$

23. $\sqrt{1.96}$ is a/an

  (A) Rational number
  (B) Irrational number
  (C) Natural number
  (D) Integer

24. The graph of n equation, $y = -3$ is a line
  (A) Parallel to x-axis
  (B) Parallel to y-axis
  (C) Passing though origin
  (D) None of these

25. The graphs of $2x - 3y = 1$ and $3x - 4y = 1$ has:
  (A) Unique solution
  (B) No solution
  (C) Infinite solution
  (D) None of these

26. The system of equations, $2x - 3y - 8 = 0$ and $5x - 8y + 11 = 0$ is:
  (A) Consistent
  (B) Inconsistent
  (C) Dependent
  (D) No solution

27. The solution of the equation in relation, $|x - 5| = 10$ is:
  (A) $-15, 5$
  (B) $15, 5$
  (C) $-15, -5$
  (D) $15, -5$

28. The sum of two numbers is 80. If the larger number exceeds four times the smaller one by 5, then the smaller number is:
  (A) 5
  (B) 15
  (C) 20
  (D) 25

29. The graph of linear equation is always:
  (A) Parabola
  (B) Circle
  (C) St. line
  (D) None of these

30. If $\left(x^2 + \frac{1}{x^2}\right) = 102$, the value of $\left(x - \frac{1}{x}\right)$ is:
  (A) 8
  (B) 10
  (C) 12
  (D) 13

31. If $a + b + c = 0$, then $\left(a^3 + b^3 + c^3\right)$, is equal to:
  (A) 0
  (B) abc
  (C) 3abc
  (D) $(ab + bc + ca)$

32. If $x^3 + 6x^2 + 4x + k$, is exactly divisible by $(x+2)$, then the value of k is:
  (A) -6
  (B) -7
  (C) -8
  (D) -10

33. The H.C.F. of $2\left(x^2 - y^2\right)$ and $5\left(x^3 - y^3\right)$ is:
  (A) $2(x^2 - y^2)$
  (B) $(x-y)$
  (C) $(x+y)$
  (D) $10(x + y)(x - y)(x^2 + xy + y^2)$

34. The area of a square is $(49x^2 + 28x + 4)$, its side is:
  (A) $(7x + 3)$
  (B) $(7x - 2)$
  (C) $(7x + 2)$
  (D) $(5x + 7)$

35. L.C.M. of $4x^2y, 6xy^2, 8x^2y^2$ is:
  (A) $4xy$
  (B) $12xy$
  (C) $8x^2y^2$
  (D) $24x^2y^2$

5

36. The value of $\left(1+\frac{1}{x+1}\right) \times \left(1+\frac{1}{x+2}\right) \times \left(1+\frac{1}{x+3}\right) \times \left(1+\frac{1}{x+4}\right)$ is :

(A) $1+\frac{1}{x+5}$

(B) $\frac{1}{x+5}$

(C) $\frac{x+1}{x+5}$

(D) $\frac{x+5}{x+1}$

37. If $x = \frac{a}{a+b}$ and $= \frac{b}{a-b}$, then $\frac{1}{x}+\frac{1}{y}$ is equal to:

(A) $\frac{ab}{a^2+b^2}$

(B) $\frac{ab}{a^2-b^2}$

(C) $\frac{a^2+b^2}{ab}$

(D) $\frac{a^2-b^2}{ab}$

38. The product of polynomials $\left(x^2+x+1\right)$ and $(x-1)$ is:
(A) x^3-1
(B) x^3+1
(C) x^3-2
(D) $2x^3+1$

39. If cost of 5 mangoes and 4 oranges is equal to the cost of 3 mangoes and 7 oranges. Then the ratio between the rate of mangoes and oranges is:
(A) 4:3
(B) 1:3
(C) 3:2
(D) 5:2

40. The sum of the roots of the equation $\left(x^2-6x+2\right)=0$ is :
(A) -6
(B) -2
(C) 2
(D) 6

41. If α, β are the roots of the equation $x^2-5x+6=0$, the value of $\alpha^2-\beta^2$ is:
(A) ± 4
(B) ± 5
(C) ± 6

42. An old machine is bought for Rs. 1400 and is sold at a loss of 15%. Selling Price of machine will be:
(A) Rs. 1610
(B) Rs. 1190
(C) Rs. 1090
(D) Rs. 1210

43. A shopkeeper marked dinner set for R. 1000. He sold it at Rs. 900. Discount % is:
(A) 20%
(B) 15%
(C) 10%
(D) 12%

44. The time in which a certain amount is doubled at the rate of 10% S.I. is:
(A) 5 years
(B) 10 years
(C) 15 years
(D) 20 years.

45. The 3rd term of an A.P. is -40 and 13th term is 0. Find the 20th term
(A) 18
(B) 28
(C) 38
(D) 48

46. Which term of A.P.: 21, 42, 63, 84, ... is 420
(A) 20th
(B) 30th
(C) 40th
(D) 15th

47. Find the sum of $(1)^2+(2)^2+(3)^2+ \cdots$ to nth term

(A) $\frac{n(n+1)}{2}$

(B) $\frac{n}{2}\left(\frac{n}{2}+1\right)$

(C) $\frac{n(n+1)(2n+1)}{6}$

(D) None of these

48. An equilateral triangle ABC has end co-ordinates as A(3,0), B(-9,5), the side BC is:
(A) 19
(B) 8
(C) 13

49. One end of a line is (3,4) find the other end if its mid point is (4,5)
(A) (5, 6)
(B) (−6, 5)
(C) (−5, −6)
(D) (4, 5)

50. What is the perimeter of the triangle made by (3, 1), (7, 4) and (11, 1)?
(A) 10
(B) 18
(C) 12
(D) 13

51. The value of $\cos 60° \cos 30° - \sin 60° \sin 30°$
(A) 1
(B) 0
(C) ½
(D) −1/2

52. The value of $\frac{\sin A}{1+\cos A} + \frac{\sin A}{1-\cos A}$ is:
(A) $\sin A$
(B) $2 - 2\cos A$
(C) $2/\sin A$
(D) $\csc A$

53. $\frac{\sin 80°}{\cos 10°}$ is equal to:
(A) 0
(B) 1
(C) 8
(D) None of these

54. If $\sin A = x$, then $\sin 2A$ is equal to:
(A) $2x$
(B) $2x\sqrt{1-x^2}$
(C) $x\sqrt{1-x^2}$
(D) $x\sqrt{1+x^2}$

55. The value of $(1 - \cos^2\theta)\csc^2\theta$ is:
(A) 0
(B) $\sec^2\theta \sin^{-2}\theta$
(C) 1
(D) $\sec^2\theta \csc^2\theta$

56. The value of $\sin 75° + \sin 15°$ is equal to:
(A) $\sqrt{3}$

(B) $\frac{\sqrt{6}}{2}$
(C) ∞
(D) $-\sqrt{3}$

57. One side of rectangular field is 4 meters and its diagonal is 5 meters. The area of the field is:
(A) $12m^2$
(B) $15m^2$
(C) $20m^2$
(D) $4\sqrt{5}m^2$

58. A hall 40 meters long, 15 meters broad is to be paved with stones, each measuring 6 dm by 5 dm. The number of stones required is:
(A) 1000
(B) 2000
(C) 3000
(D) None of these

59. If the ratio of the area of two squares is 9:1, the ratio of their perimeters is:
(A) 9:1
(B) 3:1
(C) 3:4
(D) 1:3

60. The diagonals of a rhombus are 24 cm and 10 cm. Its perimeter will be:
(A) 68 cm
(B) 60 cm
(C) 52 cm
(D) 50 cm

61. In 2 hrs, minute hand of clock will rotate through an angle of:
(A) 60°
(B) 360°
(C) 720°
(D) 180°

62. The radius of a sphere is doubled then its surface area is increased to:
(A) Double
(B) 3 times
(C) 4 times
(D) 8 times

63. Length of longest rod that can be placed in a room of dimensions $6m \times 6m \times 3m$ is:
(A) 36m
(B) 12m
(C) 9m
(D) 15m

64. The number of small cubes with edge of 10 cm that can be accommodated in a cubical box of 1m edge is:
(A) 10
(B) 100
(C) 1000
(D) 10000

65. The radii of the cylinders are in the ratio 2:3 and their heights are in the ratio 5:3. The ratio of their volumes is:
(A) 27:20
(B) 20:27
(C) 4:9
(D) 9:4

66. The mean of the terms 3, 13, 23, 8, 18, 28, x, is 18, the value of x is:
(A) 30
(B) 32
(C) 33
(D) 34

67. A candidate secured 44 marks in English, 40 marks in Physics, 50 marks in Chemistry, 70 marks in Mathematics, 60 marks in Hindi. If the weightage of respective subjects is 3, 2, 1, 2, 2, the mean of marks obtained is:
(A) 52.2
(B) 54.2
(C) 56.2
(D) 58.2

68. Mean of first 5 observations is 7 and the mean of first 6 observations is also 7 then the 6th observation is:
(A) 6
(B) 7
(C) 75
(D) 12

69. Histogram is:
(A) One dimensioned
(B) Two dimensioned
(C) Three dimensioned
(D) None of these

70. Centroid of a triangle is the point of intersection of its ....
(A) Altitudes
(B) medians
(C) angle bisectors
(D) None of these

[PHYSICS]

71. 1 km/h = _____ m/s
(A) 5/18
(B) 18/5
(C) 50/3
(D) 3/50

72. When a body moves in a straight line then its displacement coincides with
(A) Distance
(B) force
(C) Acceleration is zero
(D) Both (A) and (B)

73. Give the equation of motion connecting u, v, a and s where the symbols have their usual meaning
(A) $V = u + at$
(B) $S = ut + \frac{1}{2} at^2$
(C) $v^2 - u^2 = 2aS$
(D) $a = (v-u)/t$

74. A body moving along a straight line at 40 m/s undergoes an acceleration of 4 m/s². After 10 seconds its speed will be
(A) 20 m/s
(B) 28 m/s
(C) 16 m/s
(D) 80 m/s

75. When a body is in motion, _____ always changes
(A) Its velocity
(B) Its acceleration
(C) Its position vector
(D) Its momentum

76. When velocity time graph is a straight line parallel to time axis then
(A) Acceleration is constant
(B) Acceleration is variable
(C) Acceleration is zero
(D) Velocity is zero

2017

1. Inertia of an object is quantitative measure of its
(A) Volume
(B) Density
(C) Mass
(D) Temperature

78. The Universal law of gravitation must apply to?
(A) Any pair of bodies
(B) The earth and the moon
(C) The earth and the apple
(D) The planets around the Sun

79. 'g' decreases with?
(A) Amplitude
(B) Weight
(C) Horizontal displacement
(D) Altitude

80. Newton-meter is the SI unit of
(A) Acceleration
(B) Work
(C) Power
(D) Force

81. Two bodies of masses m_1 and m_2 have equal kinetic energies. If p_1 and p_2 are their respective momentum, then ratio $p_1:p_2$ is:
(A) $m_1:m_2$
(B) $m_2:m_1$
(C) $\sqrt{m_1} : \sqrt{m_2}$
(D) $m_1^2 : m_2^2$

82. A 1 kg block is lifted vertically 1m by a boy. The work done by the boy is:
(A) 1J
(B) 9.8J
(C) 0J
(D) 0.1J

83. Direction of propagation of waves is parallel to the direction of vibration in
(A) Transverse waves
(B) Longitudinal waves
(C) Both transverse and longitudinal waves
(D) None of waves

84. Motion that is repeated at regular intervals is termed as
(A) Vibration
(B) Oscillation
(C) Ventilation
(D) Periodic motion

85. If we increase wavelength, then frequency would
(A) Increase
(B) Decrease
(C) Remains same
(D) May increase or decrease

86. Ups and downs in transverse waves are termed as
(A) Compressions and rarefactions
(B) Crests and rarefactions
(C) Compressions and troughs
(D) Crests and troughs

87. Time taken to produce one complete wave is known as period 'T' of wave, 'T' is equal to
(A) Frequency of wave, f
(B) Wavelength of wave, λ
(C) 1/(Wavelength of wave, λ)
(D) 1/(Frequency of wave, f)

88. Electromagnetic waves are different from sound waves in that
(A) They need medium and are longitudinal
(B) They need no medium and are transverse
(C) They need medium and are transverse
(D) They need no medium and are longitudinal

89. Light travels fastest through which of the following materials?
(A) Diamond
(B) Water
(C) Glass
(D) Air

90. The human eye forms the image of an object at its
(A) Cornea
(B) Retina
(C) Iris
(D) Pupil

91. Which of following are primary colours from painting perspective?
    (A) Red, Blue, Yellow
    (B) Red, Green, Violet
    (C) Yellow, Green, Blue
    (D) Red, Green, Blue

92. A person cannot see objects clearly beyond 50cm. The power of lens to correct the vision is
    (A) + 5D
    (B) − 0.5D
    (C) − 2D
    (D) + 2D

93. Heat is measured in
    (A) Joule
    (B) Calorie
    (C) Both a) and b)
    (D) Joule/second

94. 1Calorie=?
    (A) 1.2 joule
    (B) 3.2 joule
    (C) 4.2 joule
    (D) None of these

95. The amount of heat required to raise the temperature of 1kg of substance by 1^0C is called as:
    (A) Work capacity
    (B) Specific heat capacity
    (C) Energy capacity
    (D) Heat capacity

96. The process of transfer of heat in solids is called as:
    (A) Conduction
    (B) Convection
    (C) Radiation
    (D) All of these

97. If a current i flows steadily through a resistor 'R' for a time 't' with an applied voltage V, then total heat energy supplied to the resistor is given by?
    (A) V/It
    (B) IR^2t^2
    (C) I^2Rt
    (D) V^2It

98. The terminal potential difference of a battery is equal to its e.m.f. when its internal resistance is?
    (A) Very low
    (B) Zero
    (C) Very high
    (D) None of these

99. The resistance of the wire varies inversely as:
    (A) Area of cross section
    (B) Resistivity
    (C) Length
    (D) Temperature

100. A series circuit consists of three resistors with values of 140, 250 and 220 ohms. The total resistance is
    (A) 330 ohm
    (B) 610 ohm
    (C) 720 ohm
    (D) None of these

101. Kilowatt-hour is the unit of
    (A) Power
    (B) Potential difference
    (C) Force
    (D) Electrical Energy

102. A current of 3A flows through a conductor whose ends are at a potential difference of 6V. The resistance of the conductor is
    (A) 1 ohm
    (B) 0.5 ohm
    (C) 2 ohm
    (D) 12 ohm

103. If there are three resistances each of 2 ohm and generate the effective resistance of 3 ohm. How will be the connection of these three resistances in the circuit?
    (A) A parallel combination of two resistances and one in series
    (B) A series combination of two resistances and one in parallel
    (C) Three in series
    (D) Three in parallel

104. If there are two bulbs of 150W and 60W so which has more resistance?
    (A) 150W
    (B) 60W
    (C) Both bulb have same resistance
    (D) None of these

10

105. Which one of the following is a bad conductor of electricity
    (A) Gold
    (B) Silver
    (C) Copper
    (D) Plastic

106. Why are copper wires used as connecting wires?
    (A) Low resistivity
    (B) Low conductivity
    (C) High resistivity
    (D) High conductivity

107. The magnetic field inside a long straight solenoid-carrying current
    (A) is zero
    (B) decreases as we move towards its end
    (C) increases as we move towards its end
    (D) is the same at all points

108. The magnetic field produced at the center of a circular wire is proportional to _____ and inversely proportional to _____ .
    (A) radius of loop, current
    (B) current, radius of loop
    (C) length of wire, current
    (D) weight of wire, current

109. Which device is used to convert electric energy into mechanical energy?
    (A) Electric generator
    (B) Solenoid
    (C) Electric motor
    (D) Electric iron

110. Which of the following devices works on the principle of electromagnetic induction?
    (A) Ammeter
    (B) Voltmeter
    (C) Galvanometer
    (D) Electric Generator

[CHEMISTRY]

111. The number of valence electrons in the atom having Z value 10 are
    (A) Eight
    (B) Two

(C) Zero
(D) Ten

112. The number of atoms present in 20g of Neon gas Is
    (A) 6.023×10^{23}
    (B) 1.205×10^{24}
    (C) 6.023×10^{22}
    (D) 3.01×10^{22}

113. Which of the following is a physical change
    (A) Burning of wood
    (B) Evolution of gas by putting salt in coca cola drink
    (C) Burning of a piece of paper
    (D) Rusting of Iron

114. Zinc reacts with sulpuric acid to form zinc sulphate and hydrogen gas. For this reaction, what is correct?
    (A) zinc is reduced
    (B) zinc is neutralized
    (C) zinc is oxidized
    (D) H_2SO_4 is oxidized

115. What are the values of x, y, z in the following equation?

$$x\ KClO_3 \longrightarrow y\ KCl + z\ O_2$$

    (A) 2,2,3
    (B) 3,2,3
    (C) 2,3,2
    (D) 1,2,3

116. The common feature in the elements of same group Is
    (A) Atomic number
    (B) Number of electronic shells
    (C) Atomic size
    (D) Number of valence electrons

117. Lanthanide series has the elements
    (A) F, Cl, Br
    (B) La, Ce , Pr
    (C) Ac, Th, Pa
    (D) H, Li, Na

118. The alkali metal which is liquid at 15^0C is
    (A) K
    (B) Cs
    (C) Na
    (D) Ba

11

119. The liquid in which another substance is dissolved is called
 (A) Solvent
 (B) solute
 (C) Solution
 (D) Colloid

120. The method by which sea water is purified is called
 (A) Calcination
 (B) Desalination
 (C) Sterilization
 (D) Chlorination

121. The pH of pure water is
 (A) 0
 (B) 7
 (C) 14
 (D) None of these

122. The IUPAC name of ethylene is
 (A) Ethane
 (B) Ethene
 (C) Ethyne
 (D) Ether

123. The property of an atom to form a bond with itself is called
 (A) Allotropy
 (B) Catenation
 (C) Homologous
 (D) Isomerism

124. Nylon is a
 (A) Polyamide
 (B) Polyaldehyde
 (C) Polyalcohol
 (D) Polymer of Ethylene

125. Graphite is used as a lubricant because of its following characteristics
 (A) Crystalline
 (B) Insolubility in organic solvents
 (C) Soft and greasy
 (D) Thermal conductivity

126. Ethyl alcohal reacts with acetic acid in the presence of conc. Sulphuric acid to form
 (A) Ethanoic acid
 (B) Ether
 (C) Ethyl ethanoate
 (D) Formic acid

127. The IUPAC name of iso-butane is
 (A) n-Butane
 (B) Iso-butane
 (C) 2-Methyl propane
 (D) 1-Methyl propane

128. The compound added in washing powder for maintaining the whiteness of the clothes is
 (A) Sodium carbonate
 (B) Sodium silicate
 (C) Sodium sulphate
 (D) Sodium perborate

129. The variety of coal containing maximum percentage of carbon is
 (A) Lignite
 (B) Bituminous coal
 (C) Anthracite Coal
 (D) All Carbon fuels

130. The temperature at which a fuel catches fire is
 (A) Thermal point
 (B) Pour Point
 (C) Ignition temperature
 (D) Inversion temperature

131. The combustion products of any hydrcarbon fuels are
 (A) Carbon monoxide and Carbon dioxide
 (B) Carbondioxide and water
 (C) Carbon and Steam
 (D) Cellulose and carbon dioxide

132. The energy will be liberated if
 (A) Reactants and products have same energy
 (B) Products have high energy than reactants
 (C) Reactants have high energy than products
 (D) All

133. During electrolytic refining cathode is made of
 (A) Thin strip of pure metal
 (B) Thick strip of pure metal
 (C) Thin strip of impure metal
 (D) Thick strip of impure metal

Role of cryolite during electrolytic reduction of bauxite
(A) Lowers the melting point of Aluminum
(B) Lowers the melting point of Bauxite
(C) Increases the melting point of Bauxite
(D) Increase the melting point of Aluminum

135. Which of the following is Common constituent of brass and bronze
(A) Cu
(B) Zn
(C) Sn
(D) C

136. Property due to which a substance absorbs moisture when exposed to air
(A) Dehydration
(B) Deliquescence
(C) Decantation
(D) Distillation

137. Elements involved in electrical conductivity in nerves
(A) C
(B) Na
(C) H
(D) Fe

138. Poisonous gas produced, when yellow Phosphorus reacts with hot and concentrated solution of NaOH, is
(A) NH_3
(B) CH_4
(C) PH_3
(D) CO_2

139. Element whose molecule exists in the form of 8 membered ring like structure
(A) P
(B) N
(C) C
(D) S

140. The non living components are called
(A) Biome
(B) Autotrophic
(C) Abiotic

141. The evaporation of water takes place from the leaves of the plants.The process is called
(A) Evaporation
(B) Transpiration
(C) Dehumidification
(D) Fumigation

142. For the food chain

Grass $\longrightarrow$ Mice $\longrightarrow$ Snakes $\longrightarrow$ Peacocks

What will be the energy transferred to peacocks as food?
(A) 90 J
(B) 50 J
(C) 10 J
(D) 1 J

143. The gas that resulted to Bhopal Gas tragedy
(A) Carbon dioxide
(B) Sulphur dioxide
(C) Ammonia
(D) Methyl Isocyanate

144. The units of noise is
(A) Photon
(B) RPM
(C) Decibel
(D) Joules

145. The gas available in the largest quantity by volume, in air is
(A) Oxygen
(B) Hydrogen
(C) Nitrogen
(D) Carbon dioxide

146. Main harmful effects of radiations is
(A) Malaria
(B) AIDS
(C) Cancer
(D) Tetanus

147. Carbon dioxide absorbs
(A) Infra red radiation
(B) Red Light
(C) (c)Ultra violet radiation
(D) All of these

148. The mass number of an element is equal to
    (A) the number of neutrons present in its nucleus
    (B) the number of protons present in its nucleus
    (C) sum of number of protons and number of neutrons present in the nucleus
    (D) sum of number of protons and number of electrons present in the element

149. The electrons in an atom revolve rapidly around the nucleus without loss of energy in fixed circular paths was suggested by
    (A) J.J. Thomson
    (B) Chadwick
    (C) Roentgen
    (D) Bohr

150. Fuels formed by the decomposition of plants and animals under the earth are called
    (A) liquid fuels
    (B) solid fuels
    (C) fossil fuels
    (D) Natural fuels