NUST Past Paper – Engineering

Total Time: 3 Hrs   Total Question: 200

1. The subset A of B which is different from the set of B itself, is called
    a. Proper subset
    b. Improper subset
    c. Subset
    d. Equal set

2. 0.123456789123456789123456789….
    a. An irrational number
    b. A rational number
    c. A whole number
    d. A –ive number

3. Every integer number is also
    a. Irrational number
    b. Whole number
    c. Natural number
    d. Rational number

4. The number $\sqrt{n}$, where n is a prime number is
    a. A Rational number
    b. An Irrational number
    c. A Natural number
    d. integer number

5. The additive inverse of real numbers
    a. 0
    b. 1
    c. 2
    d. 3

6. If z = a + b then?
    a. −(a + b)
    b. −a + b
    c. a – b
    d. none

7. The multiplicative inverse of 2 is
    a. 0
    b. 1
    c. -2
    d. ½

8. Conjugate of (-3 , 4) is
   a. (3 , 4)
   b. (3 ,-4)
   c. (-3 ,-4)
   d. (-3 , 4)

9. 1 > -1 -3 > -5, this property is called
   a. Additive property
   b. Transitive property
   c. Multiplicative property
   d. Closure property

10. It Q , R. are any sets, then Q − R =
   a. $Q \cap (Q − R)$
   b. $Q − (Q \cup R)$
   c. $Q − (Q \cap R)$
   d. $Q \cup (Q − R)$

11. The equation $| x + 4 | = x$ has solution
   a. X = -2
   b. X = 2
   c. X = -4
   d. X = 4

12. Geometrically, the modulus of a complex number represents its distance from the
   a. Point (1 , 0)
   b. Point (0 , 1)
   c. Point (1 , 1)
   d. Point (0 , 0)

13. Associative law of multiplication
   a. ab   = ba
   b. a(bc) = (ab)c
   c. a(a + b) = ab +bc
   d. (a + b)c = ac + bc

14. a.a-1 = a-1.a =1 is a
   a. Commutative law of multiplication
   b. Multiplicative identity
   c. Associative law of multiplication
   d. Multiplicative inverse

15. (a +bi) − (c + di) =
   a. (a + b) = (c + d)
   b. (a + c) + i(b + d)
   c. (a - c) + i(c - d)

d. (a - c) + i(b - d)

16. (a , b) +(-a , b) =
a. (0 , 0)
b. (a , b)
c. (-a , -b)
d. (1 , 1)

17. (a , 0) x(c , 0) =
a. (0 ,ac)
b. (ac,0)
c. (0,0)
d. (a , c)

18. (7 , 9) + (3 ,-5) =
a. (4 , 4)
b. (10 ,4)
c. (9 , -5)
d. (7 , 3)

19. If z1 =2 + 6i and z2 =3 + 7i, then which expression defines the products of z1 and z2?
a. 36 + (-32)i
b. -36 + 32i
c. 6 + (-11)i
d. 0, + (-12)i

20. Which element is the additive inverse of (a, b) in complex numbers?
a. (a , 0)
b. (0 , b)
c. (a , b)
d. (-a , -b)

21. The set (Z , t) forms a group
a. Forms a group w.r.t addition
b. Non commutative group w.r.t multiplication
c. Forms a group w.r.t multiplication
d. Does not form group

22. Which of the following has the same value as i^{113}?
a. i
b. -1
c. −i
d. 1

23. P: Islamabad is a capital of Pakistan q: Lahore is not a city of Pakistan, the conjunction of p q is
a. False

b. True

c. Not valid

d. Known

24. A disjunction of two statement p and q is true if
    a. P is false
    b. Both p and q is true
    c. One of P and q is true
    d. Q is false

25. The set of real number R is a subset of
    a. The set of natural Numbers N
    b. The set of inters Z
    c. The set of complex numbers C
    d. The set of even integer E

26. An element 'b' of a set B can be written as
    a. $b \subseteq B$
    b. $b < B$
    c. $b \in B$
    d. $B \in b$

27. The set A is
    a. Improper subset of A
    b. Proper submit of A
    c. Not a subset of A
    d. Not superset of A

28. A set containing only one element is called the
    a. Empty set
    b. Singleton set
    c. Null set
    d. Solution set

29. To each element of a group there correspond how many inverse element
    a. Only one
    b. At least one
    c. More than one
    d. Two

30. The set of students of your class is
    a. Infinite set
    b. Finite set
    c. Empty set
    d. Null set

31. To draw general conclusions from accepted or well-known facts is called:
    a. Induction
    b. Proposition
    c. Deduction
    d. Aristotelian logic

32. The truth value of the proportion is a positive number or 2+2 = 4 is
    a. True
    b. False
    c. Contingency
    d. None

33. The draw general conclusions from a limited number of observation or experiences is called
    a. Proposition
    b. Deduction
    c. Induction
    d. Knowledge

34. A declarative statement which may be3 true or false but not both is called
    a. Proposition
    b. Deduction
    c. Induction
    d. Knowledge

35. Which of the following is not mooned w.r.t addition?
    a. Z
    b. N
    c. W
    d. R

36. DEDUCTIVE LOGIC IN WHICH EVERY STATEMENT IS REGARDED AS TRUE OR FALSE AND THERE IS SCOPE FOR A THIRD OR FOURTH POSSIBILITY IS CALLED
    a. PROPOSITION
    b. DEDUCTION
    c. NON Aristotelian logic
    d. Aristotelian logic

37. A disjunction of two statements p and q is true if
    a. P IS FALSE
    b. Both p and q are false
    c. One of p and q is true
    d. Q is false

38. The identity element of N, w.r.t addition is
    a. 1

b. 0

c. 2

d. None

39. The set of the first element of the ordered pairs forming a relation is called ots:

   a. Relation of A to B

   b. Relation from B to A

   c. Relation in A

   d. Relation in B

40. A subset of B x A is called a

   a. Relation of A to B

   b. Relation from B to A

   c. Relation in A

   d. Relation in B

41. Cos [-150(π/2) =?

   a. 0

   b. 1

   c. -1

   d. ∞

42. 45^0 =?

   a. $3\pi/2$ radians

   b. $2\pi/3$ radians

   c. $\pi/4$

   d. 180π radians

43. A circular wire of radius 3cm us cut straightened and then bent so as to lie along the circumference of a hoop of radius 24cm.the measure of the angle subs tended at the center of the hope is

   a. 15^0

   b. 30^0

   c. 45^0

   d. 60^0

44. The area of a sector with a central angle of 0.5 radians in a circular region whose radius is 2m is

   a. $\pi/2$ m^2

   b. $\pi/3$ m^2

   c. $\pi/6$ m^2

   d. 1m^2

45. The multiplicative inverse of – 1 in the set {-1,1}is:

   a. 1

   b. -1

c. ±1

    d. 0

46. The values of cos 20+ sec 20 is always

    a. Less than 1

    b. Equal to 1

    c. Greater then 1,but less than 2

    d. Greater than or equal to 2.

47. The maximum value of sin x + Cos x is

    a. 1

    b. 2

    c. $\sqrt{2}$

    d. $1/\sqrt{2}$

48. In a school, there are 150 students. Out of these 80 students enrolled for mathematics class, 50 enrolled for English class, and 60 enrolled for physics class. The student enrolled for English cannot attend any other class, but the students of mathematics and physics can take two courses at a time. Find the number of students who have taken both physics and mathematics.

    a. 40

    b. 30

    c. 50

    d. 20

49. The set { {a, b } } is

    a. Infinite set

    b. Singleton set

    c. Two points set

    d. None

50. Sin 500- sin700 + sin100 is equal to

    a. 1

    b. 2

    c. ½

    d. 2.

51. The graph of a quadratic function is

    a. Circle

    b. Ellipse

    c. Parabola

    d. hexagon

52. The set of complex number forms a group under the binary operation of

    a. Addition

    b. Multiplication

c. Division

d. Subtraction

53. The multiplicative inverse of – 1 in the {1,-1} is

    a. 1

    b. -1

    c. ±1

    d. 0

    e. Does not exist

54. The set {1,- 1/,i ,i}, form a group under

    a. Addition

    b. Multiplication

    c. Subtraction

    d. None

55. The set of all positive even integers is

    a. Not a group

    b. A group w.r.t, subtraction

    c. A group w.r.t, division

    d. A group w.r.t, multiplication

56. The vector quantity in the following

    a. Distance

    b. Impulse

    c. Energy

    d. 1

57. The set (Q,)

    a. Forms a group

    b. Does not room a group

    c. Contains no additive identity

    d. Conations on additive inverse

58. The set (Z, +) forms a group

    a. Forms a group w.r.t addition

    b. Non commutative group w.r.t multiplication

    c. Forms a group w.r.t Multiplication

    d. Doesn't form a group

59. Total number of subsets that can be formed out of the set{a, b, c}is

    a. 1

    b. 4

    c. 8

    d. 12

60. Additive inverse of – a- b is
    a. A
    b. −a+ b
    c. A-b
    d. A+ b
61. If x = 1/x for x ∈R then the respect to subtraction is
    a. 0
    b. 1
    c. 2
    d. 4

62. The identity element with respect to subtraction is
    a. 0
    b. 1
    c. ±1
    d. Does not exist
63. Multiplicative inverse of 0 is
    a. 0
    b. 1
    c. ±1
    d. Does not exist
64. Decimal part of irrational number is
    a. Terminating
    b. Repeating only
    c. Neither repeating nor terminating
    d. Repeating and terminating
65. The trigonometric ratio change into co- ratio and vice versa if ϕ is added to or subtracted from
    a. Even – multiple of right angle
    b. Odd of $\pi/2$ multiple
    c. Both a and b
    d. None of these
66. In a country, 55% of the male population has houses in cities while 30% have houses both in cities and in villages. Find the percentage of the population that has houses only in villages,
    a. 45
    b. 30
    c. 25
    d. 50
67. If a function f: A→ B is such that fan f=B then f is a/ an?
    a. Into function

b. Onto function

c. Bi-jective function

d. one – one function

68. the set of the first elements of the orders pairs forming a relation is called its

    a. relation in B

    b. range

    c. Domain

    d. Relation in A

69. A function in which the second elements of the order pairs are distinct is called

    a. Onto function

    b. One-one function

    c. Identity function

    d. Inverse function

70. A function whose range is just one element is called

    a. One –one function

    b. Constant function

    c. Onto function

    d. Identity function

71. The graph of a quadratic function is

    a. Circle

    b. Straight line

    c. Parabola

    d. Triangle

72. To each element of a group there corresponds_____ inverse element

    a. Two

    b. One

    c. No

    d. Three

73. The set of integer is

    a. Finite group

    b. A group w.r.t addition

    c. A group w.r.t multiplication

    d. Not a group

74. The set of complex number forms

    a. Commutative group w.r.t addition

    b. Commutative group w.r.t multiplication

    c. Commutative group w.r.t division

    d. Non commutative group w.r.t addition

75. The set R is _____ w.r.t subtraction

    a. Not a group

    b. A group

c. No conclusion drawn

d. Non commutative group

76. Power set of x I.e. p(x)_____under the binary operation of union U

    a. Forms a group

    b. Does not form a group

    c. Has no identity element

    d. Infinite set although x is infinite

77. Any point, where f is neither increasing nor decreasing and f'' (x) =0 at that point, is called a

    a. Minimum

    b. Maximum

    c. Stationary point

    d. Constant point

78. If A={1,2,3,4,5,6} and gives relation {(1,1),(2,2),(3,3),(4,4),(5,5),(6,6)} is called:

    a. Binary relation

    b. Inverse relation

    c. Range at a relation

    d. Identity relation

79. The transpose of a row matrix is a

    a. Column matrix

    b. Diagonal matrix

    c. Zero matrix

    d. Scalar matrix

80. Which of the following is unary operation:

    a. Square root

    b. Union of sets

    c. Addition

    d. Multiplication

81. The angle subtended at the center of sphere by its surface area is equal to :

    a. 4/3 π radian

    b. 4/3 π steradian

    c. 4 π steradian

    d. 2 π steradian

82. If 7.635 and 4.81 are two significant numbers, their multiplication in significant digits is

    a. 36.72435

    b. 36.724

    c. 36.72

    d. 36.7

83. The magnitude of the resultant of two forces is 2F. if the magnitude of each force is F, then angle b/w these forces is
    a. 0^0
    b. 90^0
    c. 120^0
    d. 180^0

84. I(k x j) is equal to
    a. -1
    b. 0
    c. 1
    d. 2

85. Three vectors of equal magnitude are acting on the three sides of an equilateral triangle. The magnitude of their resultant is
    a. 0
    b. 3
    c. $\sqrt{3}$
    d. 1.72

86. The physical quantity which produces angular acceleration in the body is
    a. Force
    b. Moment of inertia
    c. Impulse
    d. Torque

87. The point at which an applied force produces linear motion but no rotatory motion is
    a. Mid-point
    b. Centre of gravity
    c. Optical center
    d. Pole

88. Bodies which fall freely under the action of gravity is an example of
    a. Uniform acceleration
    b. Variable acceleration
    c. Uniform velocity
    d. Average velocity

89. Crystalline solids have the properties such as
    a. Regular arrangement
    b. Covalent arrangement
    c. Somewhat defective
    d. All of them

90. A man throws a ball vertically upward in a compartment of an accelerated train. The ball will fall
    a. In front of him
    b. In his hand
    c. Behind him

       d.   Beside him

91. A bomber drops a bomb, when it is vertically above the target. It misses the target because of
       a.   Vertical component of the velocity of bomber
       b.   Forces of gravity
       c.   Acceleration of the bomber
       d.   Horizontal component of the velocity of bomber

92. The property of the moving object by virtue of which it experts forces on the object that tries to stop it is
       a.   Inertia of body
       b.   Quantity of motion of body
       c.   acceleration of body
       d.   all of these

93. the dot product of force and velocity is equal to
       a.   power
       b.   impulse
       c.   couple
       d.   momentum

94. the escape velocity from the earth gravitational field depend upon
       a.   rotation of earth
       b.   mass of body
       c.   radius of body
       d.   mass of earth

95. if the velocity of a body becomes half, the kinetic energy of body will become
       a.   one fourth
       b.   double
       c.   four times
       d.   half

96. a 60kg man In a lift which is moving upward with an acceleration of $4.8m/s^2$ will have apparent weight of
       a.   588N
       b.   294N
       c.   58.8N
       d.   882N

97. The apparent weight of pilot when diving down in a jet plane with an acceleration of $9.8m/s^2$ will become
       a.   Double
       b.   Half
       c.   –ive

d. 0

98. The geostationary satellites are
    a. Stationary W.R.T earth
    b. rotating W.R.T earth
    c. rotating very fast
    d. rotating very slow

99. $[ML^{-1}T^{-1}]$ are the dimensions of
    a. Angular momentum
    b. Power
    c. Impulse
    d. Viscosity

100. A two meter high tank is full of water a hole is made in the middle of the tank. The speed of efflux is
    a. 4.9m/s
    b. 9.8m/s
    c. 4.42m/s
    d. 3.75m/s

101. The quantity which specifies the displacement as well as the direction of motion in simple harmonic motion is the
    a. Phase angle
    b. Angular frequency
    c. Path difference
    d. None

102. The number of loops in stationary waves depends upon
    a. Velocity of waves
    b. Wavelength of wave
    c. Nature of the medium
    d. Frequency of waves

103. When the light enters from air to glass, it suffers a change in the
    a. Wavelength of light
    b. speed of light
    c. Frequency of light
    d. Wavelength and speed of light

104. Which one of the following properties of light does not change with the nature of medium?
    a. Frequency of light
    b. Wavelength of light
    c. speed of light
    d. all of these

105. we can hear sound around the corner but cannot see because of
    a. interface
    b. diffraction
    c. polarization
    d. dispersion
106. The powers of the objective and eye piece of telescope are 0.5 diopter and 10 diopter respectively. The magnifying power of telescope is
    a. 0.5
    b. 10
    c. 20
    d. 0.05
107. At constant temperature when the volume of the given mass of gas is doubled its density becomes
    a. Double
    b. one fourth
    c. four times
    d. half

108. the process which is performed quickly is
    a. isobaric process
    b. adiabatic process
    c. isothermal process
    d. isochoric process
109. the correct expression for the coulomb's law/force is
    a. $F = (1/k)(q1q2/r^2)$
    b. $F = (k)(q1q2/r^2)$
    c. $F = 4\pi \in (q1q2/r^2)$
    d. $F = (k)(r^2/ q1q2)$
110. The wave nature of an electron is illustrated by its
    a. Photoelectric effect
    b. Compton effect
    c. Penetrating effect
    d. Diffraction
111. The potential gradient between the two charged plates having , separation of 0.5cm and potential difference of 12 volts is
    a. 240 NC^{-1}
    b. 24 NC^{-1}
    c. 2.4 NC^{-1}

       d.   2400 NC^{-1}

112. The rate of change of electric potential w.r.t displacement is equal to
   a. Potential gradient
   b. Electric potential energy
   c. Electric intensity
   d. Electric flux

113. A wire of uniform cross section A, length 1 and resistance R is cut into two equal pieces. The resistivity of each piece will be
   a. The same
   b. One fourth
   c. Double
   d. One half

114. Two metallic conductors have the same value of resistivity. These conductors can be differentiated from the values of their
   a. Temperature coefficient
   b. Resistance
   c. Conductance
   d. Conductivity

115. Two metallic wires are lying parallel. If the current in these wires be flowing in the same direction, the wires will :
   a. Attract each other
   b. Repel each other
   c. Have no force of attraction or repulsion
   d. Remain stationary

116. The S.I unit of magnetic flux is weber which is equal to :
   a. Nm/A
   b. Nm^2/A^1
   c. NA/ m^1
   d. NA/ m^2

117. An electron and proton are projected with same velocity normal to magnetic field which one will suffer greater deflection
   a. Proton
   b. Electron
   c. Both will suffer greater defection
   d. None

118. The magnetic field due to current in solenoids can be increased by
   a. Increasing the number of turns per unit length
   b. Using soft iron core

c. Increasing the current

d. All of these

119. Volt x second /ampere is equal to

   a. Gauss

   b. Weber

   c. Henry

   d. Tesla

120. The counter torque produced in the moving coil of generator is called

   a. Restoring torque

   b. Deflection torque

   c. Back motor torque

   d. All of these

121. The inductive reactance of the coil having inductance of 0.5 henry in which AC of 50hz flows is

   a. 94.2 ohm

   b. 1.57 ohm

   c. 157 ohm

   d. 9.4 ohm

122. In RLC series circuit when the frequency of AC source is very low, The circuit is a/ an

   a. Resistive circuit

   b. Capacitive circuit

   c. Inductive circuit

   d. Resonant circuit

123. Which of the following makes the motion of a perpetual motion machine a physical impossibility

   a. First law of thermodynamics

   b. Second law of thermodynamics

   c. Third law of thermodynamics

   d. None of these

124. The process of combining low frequency signal with high frequency carries waves is called

   a. Rectification

   b. Amplification

   c. Modulation

   d. Magnification

125. The ratio of volumetric strain to volumetric stress is called

   a. Compressibility

   b. Young's modulus

   c. Bulk's modulus

   d. Plastic modulus

126. The substance which undergoes plastic deformation until it breaks is :

   a. Ductile substance

   b. Brittle substance

c. Plastic substance

d. All of these

127. Choose the region of the spectrum which would be used to determine the structure of crystalline solids

a. Visible

b. Infrared

c. X rays

d. Ultraviolet

128. The depletion region contains

a. Electron

b. Holes

c. Electrons and holes

d. No holes and electrons

129. The process by which the potential barrier of the depletion region can be increased or decreased is called

a. Amplification

b. Biasing

c. Modulation

d. Doping

130. The color of light emitted by light emitting diode depends upon

a. Forward voltage

b. Reverse current

c. Forward current

d. Type of semiconductors

131. The combination of AND and NOT gate is called

a. NAND gate

b. NOR gate

c. OR gate

d. XOR gate

132. If the temperature of the black body becomes double the intensity of radiation from it will become

a. Double

b. Four time

c. Six times

d. Sixteen time

133. The scattering angle for which the Compton shift in wavelength is equal to Compton wavelength is

a. $\theta = 90^o$

b. $\theta = 0^o$

c. $\theta = 45^o$

d. $\theta = 180^o$

134. The threshold frequency for a metal having work function 6.5e.V is

    a. 6.4×10^{-19} HZ

    b. 6.4×10^{-34} HZ

    c. 1.5×10^{15} HZ

    d. 1.5×10^{-15} HZ

135. The uncertainty in energy of photon which is emitted from an atom radiating for 104 second is

    a. 4×10^{-7} joules

    b. 4×10^{-17} eV

    c. 6.6×10^{-20} eV

    d. 4×10 joule

136. If an atom exists in the excited state n =5, the maximum number of transition takes place is

    a. 6

    b. 4

    c. 10

    d. 3

137. When the voltage of the target in the x ray tube increases then the

    a. Penetrating power of x rays increase

    b. Intensity of x ray increases

    c. Wavelength of x ray increase

    d. All of these

138. The frequency of light having wavelength 3×10^{-3}

    a. 1×10^{6}

    b. 1×10^{7}

    c. 10×10^{10}

    d. 1×10^{13}

139. The situation in which then excited state i.e metastable state contains more number of electrons than the ground is called

    a. Ionized state

    b. Stimulation state

    c. Population state

    d. All of these

140. The excited state which persists for unusually longer period of time is called

    a. Ground state

    b. Ionized state

    c. Metastable state

    d. Ordinary excited state

141. %age of calcium in calcium carbonate is

a. 80%

b. 30%

c. 40%

d. 20%

142. The empirical formula of the compound having 50% Sulphur and 50% oxygen by mass is

    a. SO

    b. S_2O_3

    c. SO_3

    d. SO_2

143. Bromine has two isotopes having the relative abundance as $^{75}Br_{39}$ = 50.51% and $^{81}Br_{35}$ = 49.49%. the average atomic mass of bromine is

    a. 81

    b. 80

    c. 79.5

    d. 79

144. Equilibrium constant has units if

    a. No. of moles of reactants and products are same

    b. Unequal no of moles

    c. Both

    d. None of these

145. 1 mole of CH_4 contains

    a. 6.02×10^{23} atoms of H

    b. 4 g-atom of hydrogen

    c. 1.81×10^{23} molecules of CH_4

    d. 3.0 g of carbon

146. How many moles of helium gas occupy 22.4 l at 0^oC at 1 atm. Pressure

    a. 011

    b. 0.90

    c. 1.0

    d. 1.11

147. The number of oxygen atoms in 4.4g of carbon dioxide is approximately?

    a. 1.2×10^{23}

    b. 6×10^{22}

    c. 6×10^{23}

    d. 12×10^{23}

148. If N_A is Avogadro's number, then number, then number of valence electrons in 4.2g of nitride ions N^{3-} is

    a. $2.4 N_A$

    b. $4.2 N_A$

    c. $1.6 N_A$

    d. $3.2 N_A$

149. Pure water is
      a. Poor conductor
      b. Very good conductor
      c. Slight conductance
      d. Neutral

150. All of the following statements are incorrect for 20 moles of hydrogen per oxide except is has
      a. 80 mole of atoms
      b. 30 moles of Oxygen atoms
      c. 30 moles of hydrogen atoms
      d. 20 moles of hydrogen atoms

151. Empirical formula and formula unit of an ionic compound
      a. Are always different
      b. Are always similar
      c. May be similar or different
      d. Ionic compound do not have any empirical formula

152. When forward reaction and reverse reaction occur at the same time it is called
      a. Forward equilibrium
      b. Reverse equilibrium
      c. Chemical equilibrium
      d. None of above

153. The largest number of molecules are present in
      a. 3.6g of water
      b. 4.4g of C_2H_5OH
      c. 2.8g of CO
      d. 5.4g of N_2O_2

154. The presence of common ions --------- the solubility of a slightly soluble ionic compound.
      a. Decreases
      b. Increases
      c. Neither decrease nor increase
      d. None

155. An X gram of calcium carbonate was completely burnt in air. The weight of the solid residue formed is 28 g. what is the value of X in grams
      a. 44
      b. 200
      c. 150
      d. 50

156. What is the concentration of nitrate ions, if equal volumes of 0.1M $AgNO_3$ and 0.1M NaCl are mixed together?

a. 0.1M

b. 0.2M

c. 0.05M

d. 0.25M

157. Buffer solutions are

    a. Which resist in change in PH and POH

    b. Only in PH

    c. Only POH

    d. Does not resist

158. The volume in litters of CO_2 liberated at STP when 10 grams of 90% pure limestone is heated completely is

    a. 22.4

    b. 2.24

    c. 20.16

    d. 2.016

159. An organic compound contains 49.3% carbon, 6.84% hydrogen and its vapors density is 73. Molecular formula of compound is

    a. $C_3H_5O_2$

    b. $C_6H_{10}O_4$

    c. $C_3H_{10}O_2$

    d. $C_4H_{10}O_2$

160. The number of atoms in 0.004g of magnesium is close to

    a. 24

    b. 2×10^{20}

    c. 10^{20}

    d. 6.02×10^{23}

161. The weight of 11.2 liters of CO_2 at STP would be

    a. 88g

    b. 44g

    c. 32g

    d. 22g

162. Wt. of 112 ml of oxygen at STP on liquefaction would be

    a. 0.32g

    b. 0.64g

    c. 0.16g

    d. 0.96g

163. Law of mass action determines

    a. Only products

b. Composition of reacting substances and products

c. Only reacting substances

d. None of above

164. 100g of $CaCO_3$ is treated with 1 liter of 1 NHCl. What would be the weight of CO_2 liberated after the completion of the reaction

a. 5.5g

b. 11g

c. 22g

d. 33g

165. If we consider that 1/6, in place of 1/12. Mass of carbon atom is taken to be the relative atomic mass unit, the mass of one mole of substance will

a. Decrease twice

b. Increase two fold

c. Remains unchanged

d. Be a function of the molecular mass of substance

166. If 30mL of H_2 and 20 mL of O_2 reacts to form water, what is left at the end of the reaction?

a. 10mL of H_2

b. 5mL of H_2

c. 10mL of O_2

d. 5mL of O_2

167. How can we yield maximum ammonia from Haber's process?

a. High pressure, low temperature, continual removal of ammonia

b. Low pressure, high temperature, increase the ammonia content

c. High temperature and high pressure

d. All of above

168. An ideal gas obeying kinetic gas equation can be liquefied if

a. Its temperature is more than critical temperature

b. Its pressure is more than critical pressure

c. Its pressure is more than critical pressure but temperature is less than critical temperature

d. It cannot be liquefied at any value of P and T.

169. Kinetic energy of one mole of an ideal gas at 300K in kj is

a. 34.8

b. 3.48

c. 3.74

d. 348

170. Le Chaterlier's principle discussed the effects of following on equilibrium

a. Concentration, work, heat

b. Volume, heat, pressure

c. Concentration, pressure, temperature

d. None

171. The psychiatrist advised that on diet.

a. I am going

b. I am to go

c. I should go

d. I go

172. The hotel manager suggested that they arrived on time for their reservation

a. We arrive

b. We should arrive

c. We arrived

d. Were arrive

173. The college discipline committee requires that students _____ college 165 days a year

a. Are in

b. Be in

c. Were in

d. Should in

174. After the complete failure of the mission the leader of the guerrilla band realized that it was important that money _____ for the cause

a. Has been collected

b. Is collected

c. Be collected

d. Was collected

175. I wish that_____ in Multan.

a. I was living

b. I has been living

c. I were living

d. I am living

The public distribution system, which provides food at low prices, is subject if vital concern. There is a growing realization that though Pakistan has enough food to feed its masses three square meals a days, the monster of s starvation and food insecurity continues to haunt the poor in our country.

Increasing the purchasing power of the poor through providing productive employment leading to rising income, and thus good standard of living is the ultimate objective of public policy. However, till then, there is a need to provide assured supply of food through a restructured more efficient and decentralized public distribution system (PDS).

Although the PDS is extensive- it is one of the largest such systems in the world - it has yet to reach the rural poor and the far off places.it remains an urban phenomenon, with the majority of the rural poor

still out of its reach due to lack of economic and physical access. The poorest in the cities and the migrants are left out, for they generally do not possess ration cards. The allocation of PDS supplies in big cities is larger than in rural areas. In view of such deficiencies in the system, the PDS urgently needs to be steam lined. In addition, considering the large food grains production combined with food subsidy on one hand and the continuing slow starvation and dismal poverty of the rural population on the other, there is strong case for making PDS target group oriented

The growing salaried class is provided job security, regular income, and %age insulation against inflation. These gains of development have not percolated down to the vast majority of our working population. If one compares only dearness allowance to the employees in public and private sector and looks at its growth in past few years. The rising food subsidy is insignificant to the point of in equality. The food subsidy is a kind of D.A to the poor, the self-employed and those in the organized sector of economy. However, what is most unfortunate is that out of the large budget of the so-called food subsidy, the major part of it is administrative cost and wastages. A small portion of the above budget goes to real consumer and even lesser portion to the poor who are in real need.

It is true that subsidies should not become a permanent feature, except for the destitute, disabled widows and the old. It is also true that subsidies often create a psychology of dependence and hence is habit-forming, killing the general initiative of the people. By making PDS target group oriented, not only the poorest and neediest would be reached without additional cost, but it will actually cut overall costs incurred on large cities and for better off localities. When the food and food subsidy are limited the rural and urban poor should have the priority in the PDS supplies. The PDS should be closely linked with PDS should be closely linked with programs of employment generation and nutrition improvement.

176. Which of the following is the main reason for insufficient supply of enough food to the poorest?
   a. Mismanagement of food stocks
   b. Absence of proper public distribution system
   c. Production of food is less than the demand
   d. Governments apathy towards the poor

177. What, according to the passage, is he the main purpose of public policy in the long run?
   a. Reducing the cost of living index by increasing supplies
   b. Providing enough food to all the citizens
   c. Good standard of living through productive employment
   d. Equalizing per capita income across different strata of society

178. Which of the following is true of public distribution system?
   a. It has improved its effectiveness over the years.
   b. It has remained effective only in the cities
   c. It is the unique in the world because of its effectiveness

d. It has reached the remotest corner of the country

179. The word "square" as used in the passage means

    a. Rich

    b. Sumptuous

    c. Sufficient

    d. Quality

180. Which of the following words is the same in meaning as "power" as used in the passage?

    a. Vigour

    b. Energy

    c. Influence

    d. Capacity

181. RIB CAGE :LUNGS::

    a. Skull : brain

    b. Appendix : organ

    c. Sock : foot

    d. Skeleton :body

182. Scientist : laboratory (analogy)

    a. Teacher : classroom

    b. Dentist : drill

    c. Lawyer : client

    d. Actor : playwright

183. Brittle :fracture(analogy)

    a. Rain : umbrella

    b. Flammable : burn

    c. Perpetual : stop

    d. Ice :cold

184. Gymnasium: exercise (analogy)

    a. Diseases :diagnose

    b. Birthday : celebrate

    c. Store : shop

    d. Army : discharge

185. Compass: navigation

    a. Clock : dial

    b. Physician : disease

    c. Camera :photography

    d. Pilot :flight

186. He is believed to be a very industrious worker: synonym

    a. Successful

b.   Sensible

c.   Punctual

d.   Diligent

187. He had the nerve to suggest that I was cheating.(synonyms)

    a.   Strength

    b.   Capacity

    c.   Audacity

    d.   Courage

188. Apathy(antonyms)

    a.   Enemy

    b.   Love

    c.   Noble

    d.   Temptation

189. Outbreak (antonyms)

    a.   Confined

    b.   Smash

    c.   Reliability

    d.   Tumult

190. Indulgent: (antonyms)

    a.   Active

    b.   Agile

    c.   Squander

    d.   Oppressive

191. The dasu hydro power project is to be built on _____river

    a.   Jhelum

    b.   Chenab

    c.   Ravi

    d.   Indus

192. The headquarter of Anjuman Tariqi-i-Urdu is located in _____

    a.   Lahore

    b.   Karachi

    c.   Rawalpindi

    d.   Multan

193. The incumbent president of all Pakistan newspaper society (APNS) is

    a.   Aslam Chelas

    b.   Burhand Ud Din

    c.   Furrukh Niazi

    d.   Hameed Haroon

194. When was earth hour observed?
   a. 1 April, 2014
   b. 22 March, 2014
   c. 29 March.2014
   d. 31 March, 2014

195. Book titled the "Wrong Enemy America in Afghanistan 2001- 2014" has been written by_____
   a. Carlotta gall
   b. Henderson brooks
   c. Neville Maxwell
   d. None of these

196. When is world water day celebrated annually?
   a. 22 March
   b. 5 March
   c. 13 March
   d. 20 March

197. Who is author of the Book the "Sahara Testaments"?
   a. Tade Ipadeola
   b. Rebbeca Hunt
   c. Abdul Kalam
   d. Victoria Grassack

198. Who is currently acting chairmen of the Competition Commission of Pakistan
   a. Rahat Kaunain
   b. Muhammad Zubair
   c. Nadeem ul Haq
   d. Dr. Joseph Wilion

199. The incumbent P.M. of Italy is _____
   a. Mario monte
   b. Lamberto dini
   c. Enrico letta
   d. Matteo renzi

200. Who won the cholistan jeep rally 2014?
   a. Ali Hassan Baloch
   b. Qasiar Khan Rind
   c. Nadir Ali Magsi
   d. Ayaz Latif Chandio