SECTION - I
ENGLISH

1. Which part of the potato plant do we eat ?
   (A) Root   (B) Seed   (C) Flower   (D) Stem

2. The velocity at which the flow changes from laminar to turbulent for the case of a given liquid at a given temperature and in a given pipe, is known as :
   (A) Turbulence velocity   (B) Critical velocity
   (C) Reynolds velocity   (D) Froude velocity

3. What is the SI unit of absolute permittivity of a medium ?

   (A) $\dfrac{J}{C}$ (B) $\dfrac{C^2}{(Nm^2)}$ (C) $\dfrac{C^2}{(Nm)}$ (D) $\dfrac{(Nm)}{C^2}$

4. What is the name of the software that allows us to browse through web pages called ?
   (A) Browser   (B) Mail Client   (C) FTP Client   (D) Messenger

5. A train 360 m long is running at a speed of 45 km/hr. In what time will it pass a bridge 140 m long ?
   (A) 40 sec   (B) 42 sec   (C) 45 sec   (D) 48 sec

6. The difference of $1\dfrac{3}{16}$ and its reciprocal is :

   (A) $1\dfrac{1}{8}$ (B) $1\dfrac{1}{3}$ (C) $\dfrac{15}{16}$ (D) $\dfrac{105}{304}$

7. What comes next : AZ, CX, FU, ___ ?
   (A) IR   (B) IV   (C) JQ   (D) KP

8. Which of the following is a cycle consisting of one constant pressure, one constant volume and two isentropic processes ?
   (A) Carnot cycle   (B) Stirling cycle   (C) Otto cycle   (D) Diesel cycle

9. Who was the first Indian women to swim across the English Channel ?
   (A) Nafisa Ali   (B) Arati Saha
   (C) Bula Choudhury   (D) J. Sikder

10. The process of transferring files from the Internet to your computer is called :
    (A) Downloading   (B) Uploading   (C) FTP   (D) JPEG

11. The curve traced by a point moving on a plane in one direction, towards a fixed point while also moving around that point, is called ?
   (A) Trochoid   (B) Spiral   (C) Parabola   (D) Catenary

12. In amplitude modulation :
   (A) carrier frequency is changed   (B) carrier amplitude is changed
   (C) three sidebands are produced   (D) fidelity is improved

13. Electric current in a metal wire is due to the flow of :
   (A) Protons   (B) Electrons   (C) Ions   (D) None of these

14. High levels of uric acid in the blood is characteristic of :
   (A) Arthritis   (B) Gout
   (C) Rheumatism   (D) Rheumatic heart

15. The emitter of a transistor is generally doped the heaviest because it :
   (A) has to dissipate maximum power
   (B) has to supply the majority charge carriers to the base
   (C) is the first region of the transistor
   (D) must possess low resistance

16. "Under the same conditions of temperature and pressure, equal volumes of all gases contain the same number of molecules". This law was propounded by :
   (A) Gay-Lussac   (B) Isaac Newton
   (C) Amadeo Avogadro   (D) Kelvin

17. Find the next three numbers in the series : 3, 4, 9, 10, 15, ___ , ___ , ___ .
   (A) 16, 21, 22   (B) 16, 22, 23   (C) 16, 23, 24   (D) None of these

18. Which of the following countries became the first to have made a space craft enter the orbit of Mars in the first attempt itself ?
   (A) USA   (B) UK   (C) Germany   (D) India

19. Dimensions of cylindrical parts should as far as possible be shown in the views in which they are seen as _____.
   (A) Cones   (B) Ellipses   (C) Rectangles   (D) Triangles

20. If a person walks at 14 km/hr instead of 10 km/hr, he would have walked 20 km more in the same time. The usual distance travelled by him is :
   (A) 50 km   (B) 56 km   (C) 70 km   (D) 80 km

21. Dead organs are generally stored in formalin. Formalin is :
   (A) aqueous formaldehyde   (B) aqueous ferrous sulphate
   (C) aqueous formic acid   (D) aqueous ferric alum

22. A man rows to a place 48 km distant and comes back in 14 hours. He finds that he can row 4 km with the stream in the same time as 3 km against the stream. The rate of the stream is :
    (A) 1 kmph   (B) 1.5 kmph   (C) 2 kmph   (D) 2.5 kmph

23. What are .bas, .doc, and .html examples of ?
    (A) Extensions   (B) Domains   (C) Database   (D) Protocols

24. Find the missing number in the blank in the series :
    1, 4, 9, 16, 25, ___, 49, 64.
    (A) 21   (B) 31   (C) 26   (D) 36

25. The Representative Fraction used in the case of drawings of buildings is always :
    (A) equal to 1   (B) less than 1   (C) greater than 1   (D) none of these

26. A man takes twice as long to row a distance against the stream as to row the same distance in favour of the stream. The ratio of the speed of the boat (in still water) and the stream is :
    (A) 2 : 1   (B) 3 : 1   (C) 3 : 2   (D) 4 : 3

27. The only drawback of using negative feedback in amplifiers is that it involves :
    (A) gain sacrifice   (B) gain stability
    (C) temperature sensitivity   (D) frequency dependence

28. A bullet of mass A and velocity B is fired into a block of wood of mass C. If loss of any mass and friction be neglected, what is the end velocity of the system ?
    (A) $\dfrac{(AB)}{(A+C)}$ (B) $\dfrac{(AC)}{(B+C)}$ (C) $\dfrac{(A+C)}{(BC)}$ (D) $\dfrac{(A+B)}{AC}$

29. The banana is the good source of which vitamin ?
    (A) A   (B) C   (C) D   (D) B

30. Which of the following meters/instruments is suitable for measuring only direct current ?
    (A) moving-iron type   (B) permanent-magnet type
    (C) electrodynamic type   (D) hot-wire type

31. A car travels 70 km in one hour before some fault happens, then it travels for 120 km at 30 kmph. For the entire trip, what was the average speed ?
    (A) 33 kmph   (B) 36 kmph   (C) 38 kmph   (D) 40 kmph

32. In an ideal transformer :
    (A) windings have no resistance   (B) core has no losses
    (C) core has infinite permeability   (D) all of these

33. The maximum stress produced in a bar of tapering section is at :
(A) smaller end   (B) larger end   (C) middle   (D) anywhere

34. Cape Canaveral, the site from which space shuttles, are launched, is located on the coast of :
(A) North Carolina   (B) South Carolina   (C) Florida   (D) Virginia

35. An electronic oscillator is :
(A) just like an alternator   (B) nothing but an amplifier
(C) an amplifier with feedback   (D) a converter of a.c. to d.c. energy

36. Find the ratio in which rice at ₹ 7.20 a kg be mixed with rice at ₹ 5.70 a kg to produce a mixture worth ₹ 6.30 a kg.
(A) 1 : 3   (B) 2 : 3   (C) 3 : 4   (D) 4 : 5

37. Junction breakdown occurs :
(A) under high temperature conditions
(B) with forward bias
(C) under reverse bias
(D) because of manufacturing defect

38. Rare Gases are generally chemically inert because they :
(A) are monostomic
(B) have low ionization energy
(C) have stable electronic configuration
(D) have a high electron affinity

39. The most efficient form of damping employed in electrical instruments, is :
(A) air friction   (B) fluid friction   (C) eddy currents   (D) none of these

40. Which of the following may be treated as a "rotating transformer" ?
(A) d.c. series motor   (B) d.c. shunt motor
(C) induction motor   (D) none of these

41. If a trolley starts from rest with an acceleration of 2 m/s^2, what would its velocity be after 4 seconds ?
(A) 8 m/s   (B) 2 m/s   (C) 8 m/s^2 (D) 2 m/s^2

42. What is Dry Ice ?
(A) Solid Carbon dioxide   (B) NaCl Crystal
(C) Ice at minus 50 degrees C   (D) Solid H_2O

43. In a centrifugal casting method :
    (A) core is made of sand
    (B) core is made of ferrous metal
    (C) core is made of nonferrous metal
    (D) no core is used

44. Measurements from the scale to the drawing are transferred with the aid of a :
    (A) Scale
    (B) Compass
    (C) Divider
    (D) Bow compass

45. If $\left(\dfrac{a}{b}\right)^{(x-1)} = \left(\dfrac{b}{a}\right)^{(x-3)}$, then the value of '$x$' is :

    (A) $\dfrac{1}{2}$
    (B) 1
    (C) 2
    (D) $\dfrac{7}{2}$

46. The electron beam welding can be carried out in :
    (A) open air
    (B) a shielded gas environment
    (C) vacuum
    (D) none of these

47. If $20.4 \times a = 12.24$, then $a = ?$
    (A) 0.6
    (B) 0.06
    (C) 6.60
    (D) 0.66

48. Alcohol contains :
    (A) nitrogen, hydrogen, oxygen
    (B) carbon, hydrogen, oxygen
    (C) oxygen, carbon, nitrogen
    (D) hydrogen, chlorine, oxygen

49. For a silicon diode, the value of the forward bias voltage typically :
    (A) must be greater than 0.3 V
    (B) must be greater than 0.7 V
    (C) depends on the width of the depletion region
    (D) depends on the concentration of the majority carriers

50. Which of the following is **not** a basic element of a transformer ?
    (A) core
    (B) primary winding
    (C) secondary winding
    (D) mutual flux

51. Multi-stage centrifugal pumps are used to :
    (A) give high discharge
    (B) produce high heads
    (C) pump viscous fluids
    (D) all of these

52. The greatest problem faced in water conservation is to reduce the amount of :
    (A) precipitation
    (B) run-off water
    (C) groundwater
    (D) evaporation

53. Find the missing numbers in the series : 1, 3, 6, 8, 16, 18, ___, ___, 76, 78.

(A) 26, 67   (B) 36, 38   (C) 32, 45   (D) 52, 104

54. The basic reason why a full-wave rectifier has twice the efficiency of a half-wave rectifier is, that :

(A) it makes use of a transformer

(B) its ripple factor is much less

(C) it utilizes both half-cycles of the input

(D) its frequency output is double the line frequency

55. The largest producer of Coffee in India is :

(A) Kerala   (B) Tamil Nadu

(C) Karnataka   (D) Unified Andhra Pradesh

56. Which one of the following is the youngest folded mountain range in India ?

(A) Aravalli Hills   (B) Eastern Ghats

(C) Himalayas   (D) Western Ghats

57. Two sinusoidal currents are given by the equations: $i_1 = 10 \sin(\omega t + [\pi/3])$ and $i_2 = 15 \sin(\omega t - [\pi/4])$. What is the phase difference between them in degrees ?

(A) 105   (B) 75   (C) 15   (D) 60

58. In low heat cement, the constituent that is kept at minimum, is :

(A) dicalcium silicate   (B) tricalcium silicate

(C) tricalcium aluminate   (D) tetracalcium aluminate

59. Global agreement in specific control strategies to reduce the release of ozone depleting substances was adopted by :

(A) Rio de Janeiro Conference (B) Montreal Protocol

(C) Kyoto Protocol   (D) Vienna Convention

60. Which of the following is a storage device that uses rigid, permanently installed magnetic disks to store data/information ?

(A) Floppy diskette (B) Hard disk   (C) Permanent disk (D) None of these

61. A Tachometer measures the :

(A) composition of an alloy   (B) flow rate of a liquid

(C) temperature   (D) rotational speed of a flywheel

62. The atomic mass of an element indicates :

    (A)   the number of times one atom of the element is heavier than $\frac{1}{12}^{th}$ of the C^{12} isotope.

    (B)   the volume of the atom.

    (C)   the number of times one atom of the element is heavier than $\frac{1}{16}^{th}$ of the O^{18} isotope.

    (D)   none of these

63. The property of sand due to which it evolves a great amount of steam and other gases is called :
    (A) collapsibility   (B) permeability   (C) cohesiveness   (D) adhesiveness

64. The sum of internal energy (U) and the product of pressure and volume (p.v) is known as :
    (A) work done   (B) entropy   (C) enthalpy   (D) none of these

65. A natural region has the similarity of :
    (A) Climate and occupation   (B) Soil and drainage
    (C) Climate and natural vegetation   (D) Economic base and races

66. The desirable property of a refrigerant is :
    (A) low boiling point   (B) high critical temperature
    (C) high latent heat of vaporization   (D) all of these

67. The coaxial cylinder viscometer makes use of which of the following laws ?
    (A) Newton's law of viscosity   (B) Hagen-Poiseuille equation
    (C) Stoke's law   (D) None of these

68. A tiny piggy bank contains, ₹ 1, 50 paise and 25 paise coins in the ratio 1 : 2 : 3. If their total value is ₹ 154, then what is number of 25 paise coins ?
    (A) 168   (B) 112   (C) 56   (D) 156

69. The algebraic sum of the IR (I = current, R = resistance) drop is primarily dependent upon the :
    (A) amount of current flowing through it
    (B) value of R
    (C) direction of current flow
    (D) battery connection

70. Three equal glasses are filled with mixtures of milk and water. The proportion of milk and water in each glass is as follows : In the first glass 3 : 1, in the second glass 5 : 3 and in the third glass 9 : 7. The contents of the three glasses are emptied into a single vessel. What is the proportion of milk and water in it ?
    (A) 21 : 17   (B) 17 : 21   (C) 31 : 17   (D) 17 : 31

71. An area legally reserved for wild life in its natural surroundings is a :
    (A) Social Forest (B) Biosphere Reserve
    (C) National Park (D) Sanctuary

72. Which of the following temperature measuring instruments need not touch the object whose temperature is being measured ?
    (A) Radiation/Infrared pyrometer (B) Filled system thermometer
    (C) Mercury in glass thermometer (D) Thermo-electric pyrometer

73. In negative logic, the logic state 1 corresponds to :
    (A) negative voltage (B) zero voltage
    (C) more negative voltage (D) lower voltage

74. The deepest trenches of the ocean are found in the :
    (A) Indian Ocean (B) Pacific Ocean
    (C) Arctic Ocean (D) Atlantic Ocean

75. Which of the following is a non-metallic mineral ?
    (A) Bauxite (B) Magnesium (C) Manganese (D) Gypsum

76. Which of the following produces highest amount of energy upon oxidation ?
    (A) Glucose (B) Fat (C) an Alkane (D) Protein

77. A d.c. shunt motor is found suitable to drive fans because they require :
    (A) small torque at start up
    (B) large torque at high speeds
    (C) practically constant voltage
    (D) small torque at start up as well as practically constant voltage

78. Find the next two numbers in the series : 1, 2, 4, 7, 11, 16, ___ , ___.
    (A) 21, 24 (B) 22, 29 (C) 31, 39 (D) 32, 39

79. If $3\sqrt{5} + \sqrt{125} = 17.88$, then what will be the value of $\sqrt{80} + 6\sqrt{5}$?
    (A) 13.41 (B) 20.46 (C) 21.66 (D) 22.35

80. The expression $(11.98 \times 11.98 + 11.98 \times a + 0.02 \times 0.02)$ will be a perfect square for 'a' equal to :
    (A) 0.02 (B) 0.2 (C) 0.04 (D) 0.4

81. Two trains of equal length are running on parallel lines in the same direction at 46 km/hr and 36 km/hr. The faster train passes the slower train in 36 seconds. The length of each train is :
    (A) 50 m (B) 72 m (C) 80 m (D) 82 m

82. Which of the following is **not** a renewable energy of natural resources ?
   (A) Tidal energy (B) Wind energy (C) Fossil fuels (D) Solar energy

83. The sum of two numbers is 45. Their difference is 1/9th of their sum. Their LCM is :
   (A) 100 (B) 150 (C) 200 (D) 250

84. Which of the following drawings represents the details of the machine in pictorial forms as it is assembled ?
   (A) Production drawing (B) Exploded assembly drawing
   (C) Schematic assembly drawing (D) None of these

85. Who was sworn in as the Governor of Kerala in September 2014 ?
   (A) P. Sathasivam (B) K. Narayanan
   (C) V. Namboodaripad (D) Mohanan Kutty

86. A train can travel 50% faster than a car. Both start from point A at the same time and reach point B, 75 km away from A at the same time. On the way, however, the train lost about 12.5 minutes while stopping at the stations. The speed of the car is :
   (A) 100 kmph (B) 110 kmph (C) 120 kmph (D) 130 kmph

87. International Date Line Passes through :
   (A) 0° Greenwich (B) 180° Greenwich
   (C) 90° Greenwich (D) 270° Greenwich

88. Biological Oxygen Demand (BOD) in a river water :
   (A) remains unchanged when algal bloom occurs
   (B) has no relationship with concentration of oxygen in water
   (C) gives a measure of Salmonella in the water
   (D) increases when sewage gets mixed with river water

89. Reinforced concrete is advantageous because of its :
   (A) fire resistance and durability (B) less maintenance cost
   (C) monolithic character (D) all of these

90. What is the resistance of a wire of length 100 m having an area of cross section of 0.1 mm² and a resistivity of $50 \times 10^{-8} \ \Omega - m$?
   (A) 500 Ω (B) 5000 Ω (C) 250 Ω (D) 50 kΩ

91. Fullers are used :
   (A) for finishing flat surfaces (B) for necking down a piece of work
   (C) for punching a hole (D) to finish the punched hole

92. Eutrophication results in reduction of :
   (A) mineral salts
   (B) dissolved oxygen
   (C) parasitic protozoa
   (D) dissolved nitrate

93. The Halley's Comet will most probably be visible again in the year :
   (A) 2066 A.D.
   (B) 2064 A.D.
   (C) 2062 A.D.
   (D) 2060 A.D.

94. What is the address given to a computer connected to a network, called ?
   (A) System Address
   (B) SYSID
   (C) Process ID
   (D) IP Address

95. The absolute zero pressure will be obtained :
   (A) when molecular momentum of the system becomes zero
   (B) at sea level
   (C) at the temperature of -273 K
   (D) at the centre of the earth

96. Khyber Pass connects Pakistan with :
   (A) India
   (B) Afghanistan
   (C) Iran
   (D) Uzbekistan

97. _____ is the process of finding errors in software code.
   (A) Compiling
   (B) Assembling
   (C) Interpreting
   (D) Debugging

98. Which of the following is a zinc diffusion process ?
   (A) zincation
   (B) anoding
   (C) parkerising
   (D) sherardizing

99. Where were the 2014 Asian Games also known as the XVII Asiad held ?
   (A) Sochi, Russia
   (B) Banzai, Chile
   (C) Copernicus, Argentina
   (D) Incheon, South Korea

100. If $\left(\dfrac{5}{8}\right)$ of 24 $=\left(\dfrac{15}{7}\right) \times$ a, then the value of 'a' is :
   (A) $\dfrac{7}{225}$
   (B) 7
   (C) 8
   (D) 15

101. Port Blair is situated in :
   (A) North Andaman
   (B) South Andaman
   (C) Middle Andaman
   (D) Little Andaman

102. Which of the following sequences is different from the rest ?
   (A) 1, 1, 2, 3, 5, 8, 13, ...
   (B) 0, 2, 2, 4, 6, 10, 16, ...
   (C) 1, 3, 4, 7, 11, 18, 29, ...
   (D) 1, 2, 3, 6, 11, 20, 37, ...

103. Bricks used for lining furnaces are :
   (A) under burnt bricks   (B) over burnt bricks
   (C) refractory bricks   (D) all of these

104. Which of the following is an intensive property of a thermodynamic system ?
   (A) Volume   (B) Temperature   (C) Mass   (D) Energy

105. What comes next : GH, JL, NQ, SW, YD, __?__
   (A) EJ   (B) FJ   (C) EL   (D) FL

106. The hill station Halflong is in which Indian state ?
   (A) Sikkim   (B) Himachal Pradesh
   (C) Uttaranchal   (D) Assam

107. A flow, for which the resistance to shearing deformation is zero, is :
   (A) laminar flow   (B) turbulent flow
   (C) supersonic flow   (D) ideal flow

108. What is the angle between two vectors, if their sum is to be maximum ?
   (A) 90°   (B) 45°   (C) 0°   (D) 180°

109. The main job of a voltage regulator is to provide a nearly _____ output voltage.
   (A) sinusoidal   (B) constant   (C) smooth   (D) fluctuating

110. Find the missing letter : A, D, H, M, __?__, Z
   (A) T   (B) G   (C) N   (D) S

111. If the length of a simple pendulum is increased, then its time period will :
   (A) increase   (B) decrease
   (C) go on changing   (D) remain the same

112. Principal plane is a plane on which the shear stress is :
   (A) zero   (B) minimum   (C) maximum   (D) none of these

113. The useful part of livable area of a building is also known as :
   (A) Carpet area   (B) Circulation area
   (C) Horizontal circulation area (D) Plinth area

114. Which one of the following is responsible for converting milk into curd ?
   (A) Virus   (B) Insects   (C) Fungi   (D) Bacteria

115. Which one is an organic acid ?

    (A) Citric   (B) Sulphuric   (C) Nitric   (D) Phosphoric

116. The ratio of the number of boys and girls in a college is 7 : 8. If the percentage increase in the number of boys and girls be 20% and 10% respectively, what will be the new ratio ?

    (A) 8 : 9   (B) 17 : 18

    (C) 21 : 22   (D) Cannot be determined

117. Normal human blood is :

    (A) neutral   (B) slightly acidic

    (C) variable in its acidity or alkalinity (D) slightly alkaline

118. $\sqrt{\left(\dfrac{0.49}{0.25}\right)} + \sqrt{\left(\dfrac{0.81}{0.36}\right)} = ?$

    (A) $\dfrac{9}{10}$ (B) $2\dfrac{9}{10}$ (C) $7\dfrac{9}{10}$ (D) $9\dfrac{9}{10}$

119. Vendor-created program modifications are called :

    (A) Patches   (B) Fixes   (C) Holes   (D) Overlaps

120. In plants, water is absorbed by the root hairs, by a process called :

    (A) Respiration   (B) Transpiration   (C) Osmosis   (D) Perspiration

121. Insects that can transmit diseases to humans are referred to as :

    (A) Vectors   (B) Carriers   (C) Reservoirs   (D) Incubators

122. The Sun shines vertically on the Equator :

    (A) Four times a year   (B) Once a year

    (C) Throughout the year   (D) Twice a year

123. In what ratio must a grocer mix two varieties of tea worth ₹ 60 a kg and ₹ 65 a kg so that by selling the mixture at ₹ 68.20 a kg he may gain 10% ?

    (A) 3 : 2   (B) 3 : 4   (C) 3 : 5   (D) 4 : 5

124. A vertical column has two moments of inertia (i.e. I_{xx} and I_{yy}). The column will tend to buckle in the direction of the :

    (A) axis of load   (B) perpendicular to the axis of load

    (C) maximum moment of inertia   (D) minimum moment of inertia

125. A, B and C can complete a piece of work in 24, 6 and 12 days respectively. Working together, they will complete the same work in :

(A) $\frac{1}{24}$ day   (B) $\frac{7}{24}$ day   (C) $3\frac{3}{7}$ days   (D) 4 days

126. Find the missing term : AYD, BVF, DRH, ___, KGL

(A) FMI   (B) GMJ   (C) GLJ   (D) HLK

127. Who won the Men's singles Tennis Championship at the 2014 US Open ?

(A) John Wayne   (B) Roger Federer
(C) Marin Cilic   (D) Wilfried Tsonga

128. Normally which animal's skin gives us Morocco leather ?

(A) Cow   (B) Camel   (C) Goat   (D) Pig

129. Sakshi can do a piece of work in 20 days. Tanya is 25% more efficient than Sakshi. The number of days taken by Tanya to do the same piece of work is :

(A) 15   (B) 16   (C) 18   (D) 25

130. Find the missing term : ADVENTURE, DVENTURE, DVENTUR, ___, VENTU

(A) DVENT   (B) VENTURE   (C) VENTUR   (D) DVENTU

131. In a steady flow process, the value of :

(A) heat transfer is constant
(B) work transfer is constant
(C) mass flow at inlet and outlet is same
(D) all of these

132. In a mixture of 60 litres, the ratio of milk and water is 2 : 1. If this ratio is to be 1 : 2, then the quantity of water to be further added is :

(A) 20 litres   (B) 30 litres   (C) 40 litres   (D) 60 litres

133. The sole purpose of a commutator in a d.c. generator is to :

(A) increase output voltage   (B) reduce sparking at the brushes
(C) provide smoother output   (D) convert the induced a.c. into d.c.

134. Humidity is most commonly measured by :

(A) partial vapour pressure determination
(B) dry and wet bulb temperature measurement
(C) physical expansion
(D) evaporation

135. If $(17)^{3.5} \times (17)^x = 17^8$, what is the value of '$x$' ?
(A) 2.29   (B) 2.75   (C) 4.25   (D) 4.5

136. The rock having calcium carbonate as main mineral constituent, is called :
(A) calcareous rock
(B) argillaceous rock
(C) siliceous rock
(D) sandy rock

137. The Common Emitter Amplifier is characterized by :
(A) low voltage gain
(B) moderate power gain
(C) signal phase reversal
(D) very high output impedance

138. Glass is attacked by which of the following ?
(A) hydrogen chloride
(B) hydrogen bromide
(C) hydrogen iodide
(D) hydrogen fluoride

139. The hottest planet in our solar system is :
(A) Venus
(B) Earth
(C) Mars
(D) Moon

140. A charge q_1, exerts some force on a second charge q_2. Now, if a third charge q_3 is brought near, then the force exerted by q_1 on q_2 :
(A) will increase in magnitude
(B) will decrease in magnitude
(C) will remain unaffected
(D) will increase if q_3 is of the same sign as q_1 and will decrease if q_3 is of opposite charge to q_1

141. Of the following, identify the dimensionless entities.
(A) Pressure coefficient
(B) Froude number
(C) Darcy Weisbach friction factor
(D) All of these

142. Increase in atmospheric temperature due to carbon dioxide, is called :
(A) Pasteur effect
(B) Greenhouse effect
(C) Blackman effect
(D) Emerson effect

143. The computer code for interchange of information between terminals is :
(A) ASCII
(B) BCD
(C) BCDIC
(D) Hollerith

144. A pixel is :

   (A)   A computer program that draws picture

   (B)   A picture stored in secondary memory

   (C)   The smallest resolvable part of a picture

   (D)   None of these

145. The hyperbolic process is governed by :

   (A)   Boyle's law   (B)   Charles' law

   (C)   Gay-Lussac law   (D)   Avogadro's law

146. Who was appointed as the Chief Justice of India on 28th September, 2014 ?

   (A)   Justice Hardayal Singh Randhawa

   (B)   Justice Oberoi

   (C)   Justice Durga Banerjee

   (D)   Justice Handyala Lakshminarayanaswamy Dattu

147. Which is the only country crossed by a tropic circle/line and the equator ?

   (A)   Brazil   (B)   Congo   (C)   Indonesia   (D)   Australia

148. Corona (discharge/sparking) takes place between two power transmission wires when they :

   (A)   are closely spaced   (B)   are widely spaced

   (C)   have high potential difference   (D)   carry only d.c. power

149. IC chips used in computers are usually made of :

   (A)   Lead   (B)   Silicon   (C)   Chromium   (D)   Gold

150. An aeroplane covers a certain distance at a speed of 240 kmph in 5 hours. To cover the same distance in $1\frac{2}{3}$ hours, it must travel at a speed of :

   (A)   300 kmph   (B)   360 kmph   (C)   600 kmph   (D)   720 kmph

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