CITEE-2014 **SERIAL NO:**

TEST BOOKLET

DURATION: 03.00 HRS
MAXIMUM MARKS: 150

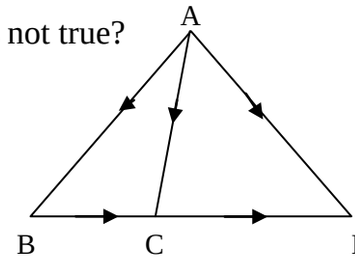
Read the following instructions carefully:

1. This Test Booklet contains **150 "Multiple Choice" questions in five (5) sections: A, B, C, D and E. Section-A: Physics (Q.1-25), Section-B: Chemistry (Q.26-50), Section-C: Mathematics (Q. 51-100), Section-D: Biology (Q. 101-125) and Section-E: English (Q.125-150).** All Questions carry equal marks of one (1) mark each.
2. Attempt all questions. Each question has only one option as correct answer (A, B, C or D)
3. Answer the questions by darkening the bubble corresponding to appropriate answer **(A, B, C or D)** on a separate **Optical Response Sheet (ORS)**
4. There will be no negative marking for the wrong answers. However, darkening must be done properly as given in the instructions in the answer sheet. More than one mark shall be treated as wrong answer.
5. Mobile phones, calculators or any other electronic gadgets are prohibited in the Examination Hall.
6. All rough works should be done in the space provided in the Test Booklet.
7. Candidates cannot leave the Examination Hall within the first hour from its commencement.
8. Candidates are not allowed to take this Test Booklet out of the Examination Hall during and after the Examination.
9. This Test Booklet contains **17** printed pages including cover page. Please check and report to the invigilator in case any page is missing, printing errors or other discrepancies are found.
10. Write your Roll No. and Name in the box provided below.

Roll No	
Name	

SECTION-A: PHYSICS (Q. 1 – 25)

1. For the adjoining figure, which of the following is not true?



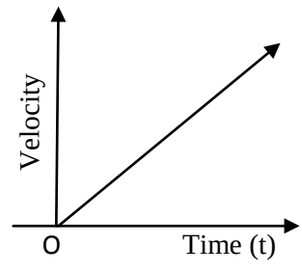
[A] $\overrightarrow{AC} = \overrightarrow{AB} + \overrightarrow{BC}$
[B] $\overrightarrow{AD} = \overrightarrow{AC} + \overrightarrow{CD}$
[C] $\overrightarrow{AD} = \overrightarrow{AB} + \overrightarrow{BD}$
[D] $\overrightarrow{AB} = \overrightarrow{AD} + \overrightarrow{BD}$

2. The displacement(S) of a body with time (t) is observed as

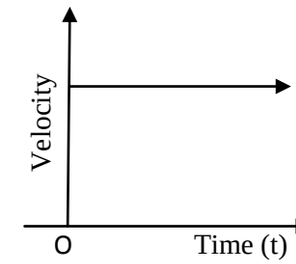
Displacement(S) (meters)	0	2	4	6	8
Time (t) (sec)	0	1	2	3	4

The velocity-time graph of this body will be

[A]



[B]



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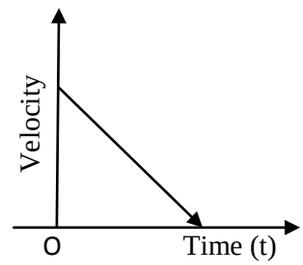
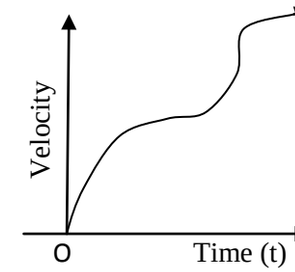


[D]



3. What is the force of gravitation between two bodies of mass 1kg separated by a distance of 1 meter?

[A] $6.62 \times 10^{-11} N$ [B] $6.62 \times 10^{-8} N$
[C] $2.66 \times 10^{-10} N$ [D] $3.62 \times 10^{-9} N$

4. Inside a moving bus, the passengers fall forward when the bus is suddenly stopped or braked. This situation happens due to

[A] Velocity [B] Acceleration [C] Force [D] Inertia

5. A stone of mass 10 kg is at a height of 10 m above the ground. If it falls through a distance of 4 meters, how much of its potential energy changes into kinetic energy?

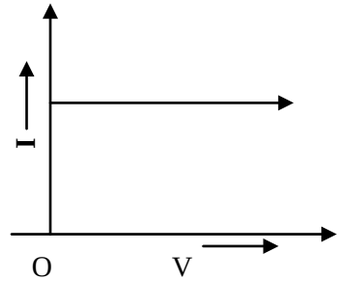
[A] 588 J [B] 392 J [C] 980 J [D] 0 J

6. A small stone and a big stone are released from the top of a building. Neglecting the air resistance, which of the following statement is true?
   [A] Bigger stone reaches the ground faster because force of gravitation between earth and bigger stone is larger.
   [B] Smaller stone reaches the ground faster because less force is required to attract it towards the earth.
   [C] Both the stone reaches the ground simultaneously because force of gravitation does not depend on mass.
   [D] Both the stone reaches the ground simultaneously because the ratio of force of gravitation to the mass is constant.
7. A constant force of 10 N displaces a body 3 km towards north and then 4 km towards east. The work done on the body will be
   [A] 30,000 J [B] 40,000 J [C] 50, 000 J [D] 70, 000 J
8. The velocity of sound waves on the surface of the moon will be
   [A] $3 \times 10^8\ ms^{-1}$ [B] $340 \times 10^6\ ms^{-1}$
   [C] $\frac{340}{6} \times 10^6\ ms^{-1}$ [D] zero (0) ms^{-1}
9. The specific heat of the two liquids A and B are found to be respectively 0.7 and 0.9. Which will be heated more easily?
   [A] A [B] B [C] Same [D] Cannot say
10. The presence of water vapour in atmosphere is called
    [A] Humidity [B] Fog [C] Smoke [D] None of these
11. Ferromagnetic substances are
    [A] Weakly attracted by magnet [B] repelled by the magnet
    [C] Strongly attracted by magnet [D] neither attracted nor repelled
12. Image formed in a concave mirror is found to be virtual, erect and magnified. Then
    [A] $f < u < 2f$ [B] $u > 2f$ [C] $u = 2f$ [D] $u < f$
13. Light enters from air to glass having refractive index 1.50. The speed of light in vacuum is $3 \times 10^8\ ms^{-1}$. The speed of light in the glass is
    [A] $0.5 \times 10^8 ms^{-1}$ [B] $1 \times 10^8 ms^{-1}$ [C] $2 \times 10^8 ms^{-1}$ [D]$3 \times 10^8 ms^{-1}$
14. The power of a concave lens having focal length 2m is
    [A] 0.5 D [B] 0.05 D [C] 5.00 D [D] 5.10 D
15. The hypermetropia is a
    [A] Short sighted defect of vision [B] Long sighted defect of vision
    [C] Defect of vision due to old age [D] None of these
16. A circuit having three resistances each of resistors 6**Ω** are connected in series and a voltage of 1.8 V is applied to the circuit , the current flowing through the circuit is
    [A] 1.0 A [B] 0.1 A [C] 2.25 A [D] 3 .0 A
17. The number of electrons constituting 1 Coulomb of charge is
    [A] 6.25×10^{18} [B] 7.25×10^{18} [C] 8.25×10^{18} [D] 9.25×10^{18}
18. How much work is done in moving a charge of 2C across two points having a potential difference of 12 V
    [A] 6 J [B] 12 J [C] 24 J [D] 48 J

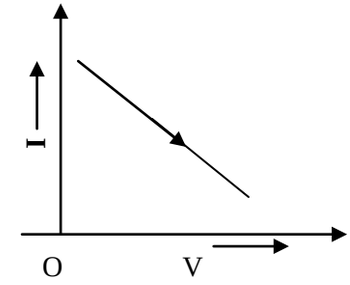
19. $1KWh$ is equal to
[A] $3.6 \times 10^6 J$ [B] $3.6 \times 10^9 J$ [C] $3.6 \times 10^{12} J$ [D] $3.6 \times 10^{15} J$

20. Fuse wire is a wire of
[A] Low resistance and low melting point
[B] Low resistance and high melting point
[C] High resistance and high melting point
[D] High resistance and low melting point.

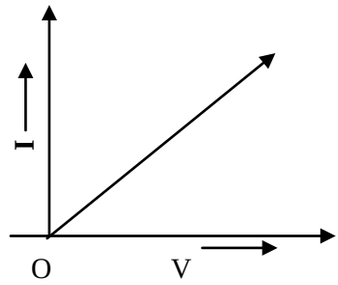
21. In which of the following graphs, Ohm's law is satisfied?
[A]



[B]



[C]



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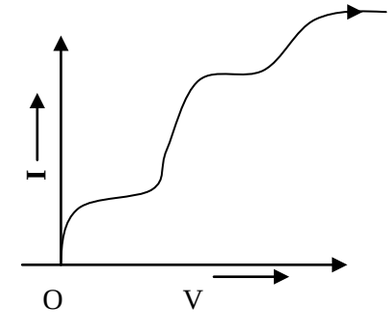


22. Which of the following is not used as Astronomical measuring unit?
[A] A.U. [B] Persec [C] Light year [D] Fermi

23. Great red spots of Jupiter are
[A] Volcanoes [B] Forest fire
[C] Scattering of light [D] Anticyclonic storm

24. Which of the following have the highest penetrating power?
[A] α-ray [B] β-ray [C] γ-ray [D] cathode ray

25. When two nuclei of deuterium fused together , the following products are formed

$$^2_1H + ^2_1H \rightarrow ^3_2He + X + Energy$$

What does X stands for
[A] $_0n^1$ [B] $_1H^1$ [C] $_{-1}e^0$ [D] U

SECTION-B: CHEMISTRY (Q. 26 – 50)

26. When two or more atoms have the same mass number (A); but their atomic numbers (Z) is different, they are called
[A] isotope [B] isobar [C] isotone [D] None of these

27. The general formula of fructose is
[A] $C_3H_6O_3$ [B] $C_6H_{12}O_6$ [C] $C_6H_6O_6$ [D] None of these

28. The oxidation number of S in $Na_2S_2O_3$ is
[A] +2 [B] – 6 [C] +1 [D] 0

29. Which one of the following have V-shaped structure
[A] H_2O [B] CO_2 [C] NH_3 [D] PH_3

30. Arrangement of following molecules with increase in bond angles is
[A] $H_2O < NH_3 < CO_2$ [B] $H_2O < CO_2 < NH_3$
[C] $H_2O > NH_3 > CO_2$ [D] $NH_3 < H_2O < CO_2$

31. The general formula of alkene is
[A] C_nH_{2n} [B] C_nH_{2n-2} [C] C_nH_{2n+2} [D] C_nH_n

32. The monomer units of Nylon-66 are
[A] Glutonic acid and hexamethylene diammine
[B] Adipic acid and hexane
[C] Adipic acid and hexamethylene diammine
[D] Adipic and hexamethyl acid

33. The tendency of attracting electron pair in a bond in a molecule is called
[A] Electron affinity [B] Ionization energy
[C] Electro-negativity [D] None of these

34. Which of the following contain more – OH group
[A] isobutanol [B] glucose [C] glycerol [D] None of these

35. Alkane can be prepared by
[A] Wurtz reaction [B] Lucas reaction
[C] Favorski reaction [D] None of these

36. Which of the following is inert gas?
[A] Oxygen [B] Argon [C] Chlorine [D] Fluorine

37. What is the number of double bond in cyclo-hexanol?
[A] three [B] two [C] one [D] zero

38. The strong smell of leakage of domestic cylinder used for cooking is due to the
[A] Presence of $(CH_3)_2S$ with LPG. [B] Presence of S in LPG
[C] Presence of PbS in LPG [D] None of these

39. What is the number of hydrogen present in n-pentane
[A] 11 [B] 5 [C] 10 [D] 12

40. Sodium and sodium ion have
[A] Same chemical properties [B] Same number of valence electrons
[C] Same number of protons [D] Same reaction with water

41. The electronic configuration of hydrogen and nitrogen are 1 and 2.5 respectively. The bonds formed between these atoms are
[A] One single bond and one double bond
[B] two single bonds and one triple bond
[C] Three single bonds
[D] One triple bond

42. The valencies of the elements X, Y and Z are 2, 3 and 2 respectively. The formulae of the compounds formed by the reactions between X, Y and Y, Z are
[A] X_3Y_2 and Y_3Z_2 [B] X_2Y_3 and Y_2Z_3 [C] X_3Y_2 and Y_2Z_3 [D] X_2Y_3 and Y_3Z_2

43. Which of the following compounds is not a covalent compound?
[A] CH_4 [B] $MgCl_2$ [C] CCl_4 [D] NH_3

44. An aqueous solution of NaOH tastes
[A] Sour [B] Bitter [C] Sweet [D] Salty

45. $Zn + H_2SO_4 \rightarrow ZnSO_4 + H_2$
The above reaction is a
[A] Acid-base reaction [B] Double decomposition reaction
[C] Redox reaction [D] None of these

46. Which of the following acids is present in vinegar?
[A] Maleic aid [B] Ethanoic acid [C] Oxalic acid [D] Tartaric acid

47. $HBrO_3$ is the formula of
[A] Bromic acid [B] Hypobromous acid
[C] Perbromic acid [D] Bromous acid

48. The name of the alkyne which has 6 hydrogen atoms is
[A] Propyne [B] Butyne [C] Pentyne [D] Ethyne

49. The ore separated by froth floatation is
[A] Hematite [B] Copper pyrites [C] Zincite [D] Horn silver

50. In the contact process, the catalyst used is
[A] Mo [B] Fe [C] V_2O_5 [D] Ni

SECTION-C: MATHEMATICS (Q. 51 – 100)

51. Which one of the following set is an empty set?
[A] A = {x: x ϵ R and $x^2 - 2x + 1 = 0$} [B] B = {x: x ϵ N and 2x-1=0}
[C] C = {x: x is an even prime number} [D] A = {x: x is an integer and -1<x<1 }

52. A mason has to fit a bathroom with square marble tiles of the largest possible size. The size of the bathroom is 10 ft by 8 ft. What would be the size in inches of each of the tile required that has to be cut?
[A] 12 inches by 12 inches [B] 16 inches by 16 inches
[C] 20inches by 20inches [D] 24 inches by 24 inches

53. The value of $\log_{10}\sqrt{10\sqrt{10\sqrt{10\sqrt{10...}}}}$ is

[A] 4 [B] 3 [C] 2 [D] 1

54. If $x+\frac{1}{y}=1$ and $y+\frac{1}{z}=1$, the value of $z+\frac{1}{x}$ is

[A] 0 [B] -1 [C] 2 [D] 1

55. A train leaves Delhi for Amritsar at 2:45 pm and goes at the rate of 50 km/h. Another train leaves Amritsar for Delhi at 1:35 pm and goes at the rate of 60 km/h. If the distance between Delhi and Amritsar is 510 km, at what distance from Delhi will the two trains meet?

[A] 350 km [B] 300 km [C] 250 km [D] 200 km

56. If the length of a rectangle decreases by 4% and the breadth of that rectangle increases by 6%, then the change in area is

[A] 1.76% [B] 1.8% [C] 1.72% [D] 1.82%

57. If A(2,2), B(-4,-4) and C(5,-8) are the vertices of a triangle, then the length of the median through vertex C is

[A] $\sqrt{65}$ [B] $\sqrt{117}$ [C] $\sqrt{85}$ [D] $\sqrt{113}$

58. In a game a number is chosen at random from the set {1,2,3,…28,29,30}. What is the probability that the number chosen is a product of exactly two different prime numbers?

[A] $\frac{7}{30}$ [B] $\frac{1}{6}$ [C] $\frac{4}{15}$ [D] $\frac{1}{5}$

59. A club consists of members whose ages are in A.P., the common difference being 3 months. If the youngest member of the club is just 7 years old and the sum of ages of all the members is 250 years, what is the number of members in the club?

[A] 15 [B] 20 [C] 25 [D] 30

60. A train 700m long is running at the speed of 72km/h. If it crosses a tunnel in 1 minute then the length of the tunnel is

[A] 525m [B] 505m [C] 515m [D] 500m

61. If $B^c \subset A^c$, then

[A] $A \cap B = \phi$ [B] $A \cup B = A \cap B$ [C] $B \subset A$ [D] $A \subset B$

62. In a hostel, every resident can speak either English or Hindi or both. If 60% can speak English and 50% can speak Hindi, What percentage of residents can speak both?

[A] 10% [B] 20% [C] 30% [D] none of these

63. Two circles touch externally. The sum of their areas is 130π cm^2 and the distance between their centres is 14 cm. The radii of the circles are

[A] 10cm, 4cm [B] 11cm, 3cm [C] 9cm, 5cm [D] 8cm, 6cm

64. If the volume and the surface area of a sphere are numerically equal, then its radius is

[A] 1 unit [B] 2 unit [C] 3 unit [D] 4 unit

65. In a triangle ABC, BD and CE are perpendiculars on AC and AB respectively. If BD = CE then the ΔABC is

[A] equilateral [B] isosceles [C] right -angled [D] scalene

66. ABC is a right angled triangle with $\angle C=90^0$ and p is the length of the perpendicular from C to AB. If BC=a , AC=b and AB=c then

[A] $\frac{a}{b}=\frac{p}{c}$ [B] pc = ab [C] $\frac{1}{a}+\frac{1}{b}=\frac{1}{ab}$ [D] none of these

67. If the four sides of a quadrilateral ABCD are tangential to a circle then which of the following is correct?

[A] AC+AD=BD+CD [B] AB+CD=BC+AD

[C] AB+CD=AC+BC [D] AC+AD=BC+BD

68. What is the common difference of an A.P. in which $a_{18}-a_{14}=32$?

[A] 8 [B] -8 [C] 7 [D] -9

69. The points (-4,0), (4,0) , (0,3) are the vertices of a

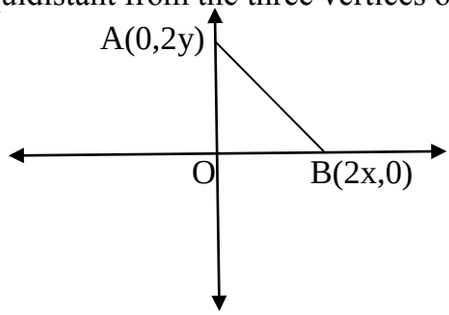
[A] Right triangle [B] isosceles triangle

[C] Equilateral triangle [D] scalene triangle

70. The co-ordinates of the point which is equidistant from the three vertices of ΔAOB is

[A] (x, y) [B] (y, x)

[C] $\left(\frac{x}{2},\frac{y}{2}\right)$ [D] $\left(\frac{y}{2},\frac{x}{2}\right)$



71. There are two children in a family. The probability that the elder is son is

[A] 1 [B] 0 [C] $\frac{1}{2}$ [D] $\frac{1}{4}$

72. If the area of a parallelogram with sides p and q is R and that of a rectangle with sides p and q is S, then

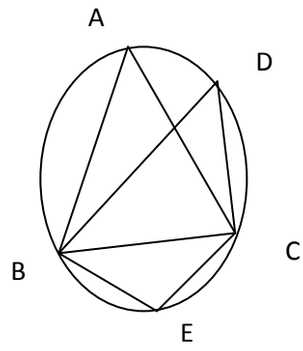
[A] R > S [B] R= S [C] R< S [D] None of these

73. If x^3+ax^2+bx+6 has $x-2$ as a factor and leaves a remainder 3 when divided by $x-3$ then the values of a and b are

[A] a = -3 and b= -1 [B] a=3 and b= -1 [C] a=2 and b= 1 [D] a= -3 and b= 1

74. In the given figure, ΔABC is an isosceles triangle with AB = AC and $\angle ABC = 50^0$. Then $\angle BDC$ is

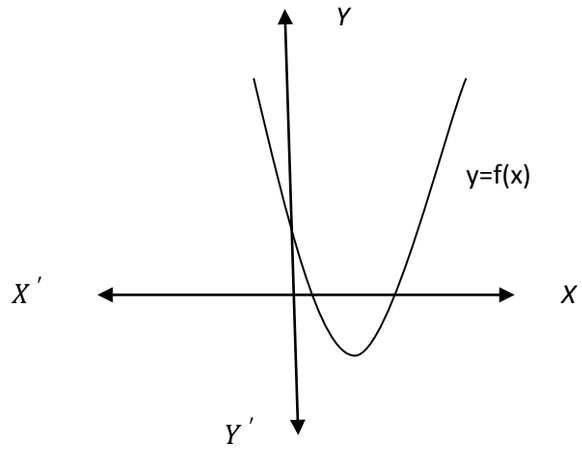
[A] 110^0 [B] 90^0 [C] 80^0 [D] 70^0



75. Sum of n terms of the series $\sqrt{2}+\sqrt{8}+\sqrt{18}+\sqrt{32}+....$ is equal to

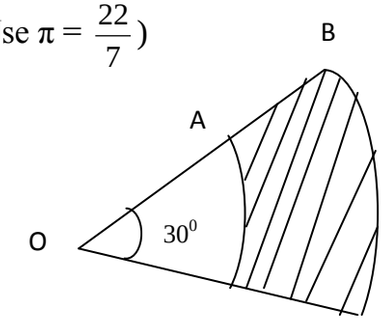
[A] $\frac{n(n+1)}{2}$ [B] $2n(n+1)$ [C] $\frac{n(n+1)}{\sqrt{2}}$ [D] 1

76. The graph of the polynomial f(x) = ax^2+ bx + c is shown in the figure. Then b^2 – 4ac will be



[A] greater than zero [B] less than zero
[C] equal to zero [D] none of these

77. In the given figure, sectors of two concentric circles of radii OB =7cm and OA =3.5cm are shown. The area of the shaded region is (Use $\pi = \frac{22}{7}$)



[A] $\frac{77}{4}cm^2$ [B] $\frac{77}{8}cm^2$

[C] $\frac{77}{2}cm^2$ [D] none of these

78. The sides (in cm) of a right angled triangle are x-1, x and x+1. Then the area of that triangle is

[A] x(x+1) cm^2 [B] 7 cm^2 [C] 6 cm^2 [D] (x^2-12) cm^2

79. If the product of two zeros of the polynomial p(x)= $2x^3 + 6x^2 – 4x + 9$ is 3, then its third zero is

[A] $\frac{3}{2}$ [B] $-\frac{3}{2}$ [C] $\frac{9}{2}$ [D] $-\frac{9}{2}$

80. The sum and difference of two expressions are $5x^2 – x – 4$ and $x^2 + 9x – 10$ respectively. Their L.C.M. would be equal to

[A] x – 1 [B] (2x + 3)(3x + 7)
[C] (2x - 3)(3x + 7) [D] (x - 1)(2x - 3)(3x + 7)

81. For the two conditions $a > b$ and $(a + b) > 1$,which one is correct

[A] $a^2 - b^2 > a - b$ [B] $a^2 - b^2 = 0$

[C] $a^2 - b^2 < a + b$ [D] $a^2 - b^2 > a + b$

82. If $a^x = b^y = c^z$ and $b^2 = ac$, then the value of $\frac{1}{x} + \frac{1}{z}$ is

[A] $\frac{1}{y}$ [B] y [C] $\frac{2}{y}$ [D] y^2

83. The largest number by which the product of three consecutive even number is always divisible, is

[A] 16 [B] 24 [C] 48 [D] 64

84. When simplified, the product

$\left(2 - \frac{1}{3}\right)\left(2 - \frac{3}{5}\right)\left(2 - \frac{5}{7}\right)$ ……..$\left(2 - \frac{997}{999}\right)$ is equal to

[A] $\frac{5}{999}$ [B] $\frac{1001}{999}$ [C] $\frac{1001}{3}$ [D] None of these

85. If the sum of the roots of the equation $\frac{1}{x+p} + \frac{1}{x+q} = \frac{1}{r}$ is zero, then the product of the roots of the equation is

[A] $p^2 + q^2$ [B] $p^2 - q^2$ [C] ½ ($p^2 + q^2$) [D]1/2 ($p^2 - q^2$)

86. How many terms are there in the AP 7, 13, 19, ……., 205 ?

[A] 31 [B] 32 [C]33 [D] 34

87. The 5^{th} and 13^{th} terms of an AP are 5 and – 3 respectively, then its 16^{th} term is

[A] 6 [B] 8 [C]– 6 [D]– 8

88. In what ratio ,the point P(– 7, 19) divides the line segment joining the points A(5, – 7) and B(– 1, 6) externally ?

[A] 2 : 1 [B] 1 : 2 [C] – 2 : 1 [D] – 1 : 2

89. Length of the chord of a circle of radius 5 cm at a distance 3 cm from the centre is

[A] 6 cm [B] 4 cm [C] 7 cm [D] 8 cm

90. In a right angled triangle, if one angle is 60° and the side opposite to it is K times the hypotenuse, then the value of K is

[A] $\frac{1}{\sqrt{2}}$ [B] $\sqrt{\frac{3}{2}}$ [C] $\frac{\sqrt{3}}{2}$ [D] $\frac{1}{2}$

91. AB is the diameter of a circle and P is a point on the circle so that $\angle PAB = 40°$. If C is a point on the other semicircle, then the value of $\angle PCA$ is

[A] 60° [B] 45° [C] 50° [D] 70°

92. The length of a tangent drawn to a circle of radius 7 cm from a point which is at a distance of 25 cm from the centre of the circle is

[A] 12cm [B] 16 cm [C] 18 cm [D] 24 cm

93. If $\tan\theta + \cot\theta = 2$, then the value of $\tan^{100}\theta + \cot^{100}\theta$ is

[A] 1 [B] 2 [C]4 [D] 6

94. From a point in a horizontal plane the distance of a vertical tower in the same plane is 300 ft. If the angle of elevation of the vertex of the tower at the point is 30°, then the height of the tower is
[A] $100\sqrt{3}$ ft. [B] $200\sqrt{3}$ ft. [C] $10\sqrt{3}$ ft. [D] $20\sqrt{3}$ ft.

95. When the length of the shadow of a pole is equal to the height of the pole, then the elevation of source of light is
[A] 30^0 [B] 45^0 [C] 60^0 [D] 65^0

96. If the length of the sides of a cube is 15 cm, then its length of the diagonal is
[A] $10\sqrt{3}$ cm. [B] $13\sqrt{3}$ cm. [C] $15\sqrt{3}$ cm. [D] $20\sqrt{3}$ cm.

97. The radius and slant height of a circular cone are in the ratio 4 : 7 and the area of its curved surface is 792 cm^2, then the radius of cone is
[A] 12 cm [B] 16 cm [C] 18 cm [D] 24 cm

98. The height of 3 students of class X is 444 cm and height of 2 students of class X is 301 cm respectively. Then the mean height per student is
[A] 147 cm [B] 148 cm [C] 149 cm [D] 157 cm

99. A factory has 100 workers, 60 of which work in the morning session and 40 in the evening session. The mean wage of all workers is Rs 38. If the mean weekly wage of the workers in the morning session is Rs 40, then the mean wage of the workers in the evening session is
[A] Rs 36 [B] Rs 37 [C] Rs 35 [D] Rs 38

100. A statistical measure which cannot be determined graphically is
[A] Mean [B] Mode [C] Median [D] Harmonic Mean

SECTION-D: BIOLOGY (Q. 101 – 125)

101. Enzymes are made of
[A] Carbohydrate [B] fats [C] protein [D]vitamins

102. The main photosynthetic green pigment present in green leaves is
[A] Chlorophyll [B] xanthophylls [C] carotene [D] none of the above

103. Respiration in plants occur during
[A] Day [B] night
[C] Day and night both [D] rainy seasons

104. Plant cell division is helped by the hormone
[A] Gibberellins [B] cytokinins [C] abscisic acid [D] auxin

105. Father of Genetics is
[A] Darwin [B] De Vries [C] Correns [D] Mendel

106. The number of chromosome present in human diploid cell is
[A] 23 [B] 46 [C] 44 [D]22

107. The acid present in stomach is
[A] Citric acid [B] nitric acid
[C] Hydrochloric acid [D] sulphuric acid

108. Chakrashila Wildlife Sanctuary is located in the district
[A] Kamrup [B] Jorhat [C] Kokrajhar [D]Chirang

109. The metal present in haemoglobin is
[A] Fe [B] Cu [C] Na [D] Co

110. The main source of energy in the body is obtained from
[A] Carbohydrate [B] protein [C] fats [D] water

111. The physical basis of life is
[A] Cell [B] protoplasm ` [C] tissue [D] None

112. How many daughter cells would you get after one mitotic division of a cell
[A] 3 [B] 4 [C] 2 [D] 1

113. Blood is red due to
[A] Copper [B] oxygen [C] iron [D] carbon dioxide

114. Pollution from animal excreta and organic waste from kitchen can be most profitably minimized by
[A] Storing them in underground storage tanks
[B] Vermiculture
[C] Using them for producing biogas
[D] Using them directly as biofertilizers

115. The element which is required in largest quantities by plant is
[A] Phosphorous [B] Nitrogen [C] Calcium [D] Sulphur

116. Which of the following is a micro-nutrient?
[A] Copper [B] Phosphorus [C] Magnesium [D]Calcium

117. Name the cells of the retina that are sensitive to color.
[A] Rods [B] cons [C] iodopsin [D] macula lutea

118. What is the average life span of RBCs?
[A] 4 days [B] 1 week [C] 1 month [D] 120 days

119. Which of these is not a raw material for photosynthesis?
[A] Carbon-dioxide [B] Water [C] Oxygen [D] None of these

120. What is the role of bile during digestion?
[A] Emulsification of fat [B] Digestion of fat
[C] Assimilation of fat [D] Absorption of fat

121. The xylem in plants is responsible for
[A] Transport of water [B] transport of food
[C] Transport of amino acids [D] transport of oxygens

122. Which enzyme is secreted in the stomach?
[A] Amylase [B] Lipase [C] Pepsin [D] Trypsin

123. The largest source of pollution in the world is
[A] Industrial effluents [B] Sewage and garbage
[C] Automobile exhausts [D]Insecticides and pesticides

124. Biogas is a mixture of
[A] 40% methane and 60% CO_2 [B] 40% methane and 60% Ethane
[C] 40% CO_2 and 60% ethane [D] 60% methane and 40% CO_2

125. Pulse beat is measured by
[A] Artery [B] Vein [C] Capillary [D] Nerve

SECTION-E: ENGLISH (Q. 126 – 150)

From Q.126-127*: Read carefully the parts of sentences in option A, B & C and identify the option with grammatical error. If there is no grammatical error in any option, answer option D for no error.*

126. [A] We discussed about the problem so thoroughly
[B] on the eve of examination
[C] that I found it very easy to work it out.
[D] No error

127. [A] I could not put up in a hotel
[B] because the boarding and lodging charges
[C] were exorbitant.
[D] No error

128. The miser gazed_____at the pile of gold coins in front of him. (*Select the most effective word to complete a meaningful sentence*)
[A] avidly [B] admiringly [C] thoughtfully [D] earnestly

From Q.129-131: *Select the proper sequence of the jumbled parts of sentence labeled as P, Q, R and S that produces correct sentence.*

129. When he
P: did not know
Q: he was nervous and
R: heard the hue and cry at midnight
S: what to do
The Proper sequence should be
[A] RQPS [B] QSPR [C] SQPR [D] PQRS

130. Since the beginning of history
P: have managed to catch
Q: the Eskimos and Red Indians
R: by a very difficulty method
S: a few specimens of this aquatic animal
The Proper sequence should be

[A] QRPS [B] SQPR [C] SQRP [D] QPSR

131. The national unity of a free people
P: to make it impracticable
Q: for there to be an arbitrary administration
R: depends upon a sufficiently even balance of political power
S: against a revolutionary opposition that is irreconcilably opposed to it
The Proper sequence should be
[A] QRPS [B] QRSP [C] RPQS [D] RSPQ

132. DIVA:OPERA (*Select the pair which has the same relationship as given*)
[A] producer: theatre [B] director: drama
[C] conductor: bus [D] thespian: play

From Q.133-134: *Choose the word which best expresses the meaning of the given word.*

133. CORPULENT
[A] Lean [B] Gaunt [C] Emaciated [D] Obese

134. CANNY
[A] Obstinate [B] Handsome [C] Clever [D] Stout

From Q.135-136*: Select the phrase which may replace the bold type to make the sentence correct.*

135. The small child does whatever his father **was done.**
[A] has done [B] did [C] does [D] had done

136. There are not many men who are so famous that they are frequently referred to by their **short names** only
[A] initials [B] signatures [C] pictures [D] middle names

From Q.137-138: *Read the text carefully and select the correct option.*

But I did not want to shoot the elephant. I watched him beating his bunch of grass against his knees, with the *preoccupied grandmotherly* air that elephants have. It seemed to me that it would be murder to shoot him. I had never shot an elephant and never wanted to. (Somehow it always seems worse to kill large animal.) Besides, there was the beast's owner to be considered. But I had got to act quickly. I turned to some experienced-looking Burmans who had been there when we arrived, and asked them how the elephants had been behaving. They all said the same thing; he took no notice of you if you left him alone, but he might charge if you went too close to him.

137. The phrase 'Preoccupied grandmotherly air' signifies
[A] being totally unconcerned
[B] pretending to be very busy
[C] a very superior attitude
[D]calm, dignified and affectionate disposition

138. From the passage it appears that the author was
[A] an inexperienced hunter [B] kind and considerate
[C] possessed with fear [D] a worried man

From Q.139-140: *Choose the option with best choice of Active/Passive voice of the given sentence.*

139. I remember my sister taking me to the museum.
[A] I remember I was taken to the museum by my sister.
[B] I remember being taken to the museum by my sister.
[C] I remember myself being taken to the museum by my sister.
[D] I remember taken to the museum by my sister.

140. They greet me cheerfully every morning.
[A] Every morning I was greeted cheerfully.
[B] I am greeted cheerfully by them every morning.
[C] I am being greeted cheerfully by them every morning.
[D] Cheerful greeting is done by them every morning to me.

141. I told him that he was not working hard. (*Choose the option with best choice of Direct/Indirect voice of the given sentence.*)
[A] I said to him, "You are not working hard."
[B] I told to him, "You are not working hard."
[C] I said, "You are not working hard."
[D] I said to him, "He is not working hard.

From Q.142-143: *Choose the exact opposite words.*

142. ENORMOUS
[A] Soft [B] Average [C] Tiny [D] Weak

143. RELINQUISH
[A] Abdicate [B] Renounce [C] Possess [D] Deny

144. *Choose the correctly spelt word.*
[A] Ommineous [B] Omineous [C] Ominous [D] Omenous

From Q.145-146: *Choose the correct meaning of the proverbs/idioms given.*

145. To make clean breast of
[A] To gain prominence [B] To praise oneself
[C] To confess without of reserve [D] To destroy before it blooms

146. To catch a tartar
[A] To trap wanted criminal with great difficulty
[B] To catch a dangerous person
[C] To meet with disaster
[D] To deal with a person who is more than one's match

147. This is the boy <u>who stood first</u>. Here <u>who stood first</u> is
[A] Phrase [B] Clause [C] Sentence [D] Verb

148. He_____a cigarette when his mother suddenly entered the room.(*fill in the blank with the correct option*)
[A] is smoking [B] was smoking
[C] have been smoking [D] had been smoking

149. Don't boast _____your knowledge. (*Choose the correct preposition*)
[A] with [B] to [C] of [D] for

150. Let the door be shut(*Select the correct active voice*)
[A] The door was shut [B] The door is shut
[C] The door have been shut [D] Shut the door.

SPACE FOR ROUGH WORK

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