

VELAMMAL

KNOWLEDGE PARK

BODHI CAMPUS - PONNERI

MERIT

SCHOLARSHIP TEST

SAMPLE PAPER

Class : (IX – X)

MATHEMATICS

1. If $x = \frac{a-b}{a+b}, y = \frac{b-c}{b+c}, z = \frac{c-a}{c+a}$, then the value of $\left(\frac{1+x}{1-x}\right)\left(\frac{1+y}{1-y}\right)\left(\frac{1+z}{1-z}\right)$ is
 a) abc b) -abc c) 1 d) -1
2. Let $A(h, k), B(1, 1), C(2, 1)$ be the vertices of a right angled triangle with AC as its hypotenuse. If the area of the triangle is 1 sq. units then sum of all values of k is
 a) 2 b) 3 c) 8 d) -4
3. If $A(a, b)$ and $B(0, 0)$ are two fixed points. M_1 is the mid point of $\overline{AB}$, M_2 is the mid point of $\overline{AM_1}$, M_3 is the mid point of $\overline{AM_2}$ and so on. Then M_5 is
 a) $\left(\frac{7a}{8}, \frac{7b}{8}\right)$ b) $\left(\frac{15a}{16}, \frac{15b}{16}\right)$ c) $\left(\frac{31a}{32}, \frac{31b}{32}\right)$ d) $\left(\frac{63a}{64}, \frac{63b}{64}\right)$
4. If h denote the arithmetic mean, k denote the Geometric mean of the intercepts made on axes by the lines passing through (1, 1) then (h, k) lies on
 a) $y^2 = 2x$ b) $y^2 = 4x$ c) $y = 2x$ d) $x + y = 2xy$
5. The points $(k, 2 - 2k), (1 - k, 2k)$ and $(-4 - k, 6 - 2k)$ are collinear then k =
 a) -1 (or) $\frac{1}{2}$ b) $-\frac{1}{2}$ (or) 1 c) -1 (or) 1 d) $-\frac{1}{2}$ (or) $\frac{1}{2}$
6. If $A(3, -4), B(7, 2)$ are the ends of a diameter of a circle and $C(3, 2)$ is a point on the circle, then the orthocentre of the $\triangle ABC$ is
 a) (0, 0) b) (3, -4) c) (3, 2) d) (7, 2)
7. A triangle with vertices (4, 0), (-1, 1), (3, 5) is
 a) Isosceles and right angled b) Isosceles but not right angled
 c) Right angled but not Isosceles d) Neither right angled nor isosceles
8. If $(x_1, y_1), (x_2, y_2), (x_3, y_3)$ are the vertices of an equilateral triangle such that $(x_1 - 2)^2 + (y_1 - 3)^2 = (x_2 - 2)^2 + (y_2 - 3)^2 = (x_3 - 2)^2 + (y_3 - 3)^2$ then $(x_1 + x_2 + x_3)^2 + (y_1 + y_2 + y_3)^2 =$
 a) 24 b) 0 c) 117 d) 27
9. The area of the pentagon whose vertices are (4, 1), (3, 6), (-5, 1), (-3, -3) and (-3, 0) is
 a) 60 Sq.units b) 30 Sq.units c) 120 Sq.units d) 75 Sq.units
10. If $P(1, 2), Q(4, 6), R(5, 7), S(a, b)$ are vertices of a parallelogram PQRS taken in order then
 a) $a = 2, b = 4$ b) $a = 3, b = 4$ c) $a = 2, b = 3$ d) $a = 3, b = 5$
11. If 3, 5 be the distances between the parallel sides and 30° is the angle between the adjacent sides of a parallelogram then its area is
 a) $\frac{15}{2}$ b) 15 c) 30 d) $\frac{15}{4}$
12. Diagonals AC and BD of a quadrilateral ABCD intersects at O in such a way that area (AOD) = area(BOC) then ABCD is
 a) A parallelogram b) Trapezium c) Square d) Rhombus
13. If x be the real number such that $x^3 + 4x = 8$ then the value of the expression $x^7 + 64x^2$ is
 a) 124 b) 125 c) 128 d) 132
14. The quadratic equation $x^2 - 1088x + 295680 = 0$ has two positive integral roots whose greatest common divisor is 16. Then the least common multiple of the two roots is
 a) 18240 b) 18480 c) 18960 d) 19240
15. Let a, b, c be three real numbers such that $a + b + c = 0$ and $a^2 + b^2 + c^2 = 2$. Then the value of $a^4 + b^4 + c^4$ is
 a) 1 b) 3 c) 4 d) 2

Paragraph (for Q.No – 16 – 18):

If P and Q are the mid-points of the sides CA and CB respectively of a ΔABC , right angled at C. Then

16. $4AC^2 + BC^2 =$
a) AQ^2 b) $4AQ^2$ c) $4BP^2$ d) AB^2
17. $4BP^2 =$
a) $4AC^2 + BC^2$ b) AB^2 c) $4BC^2 + AC^2$ d) $4AQ^2$
18. $AQ^2 + BP^2 =$
a) $\frac{5}{4}AB^2$ b) $\frac{5}{4}AC^2$ c) $\frac{5}{4}BC^2$ d) $5AB^2$

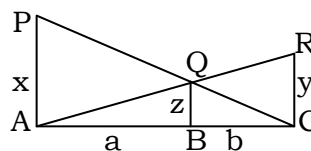
Paragraph (for Q.No – 19 – 20):

Every composite number can be expressed as a product of primes and this factorization is unique except the order in which prime factors occurs.

19. The number of non-trivial divisors of 2160 is
a) 40 b) 38 c) 12 d) 108
20. The sum of odd divisors of 360 is
a) 78 b) 68 c) 58 d) 50
21. In the given figure PA, QB and RC each is perpendicular to AC such that $PA = x$, $RC = y$,

$QB = z$, $AB = a$ and $BC = b$. Then $\frac{z}{x} + \frac{z}{y} =$

- a) 0 b) 2
c) 1 d) -1



22. If the sum of interior angles of a polygon is 3600° then the number of sides are
a) 12 b) 22 c) 24 d) 16
23. Which of the following triplet can make the sides of a triangle?
a) (15, 7, 8) b) (3.5, 4.5, 5.5) c) (2, 4, 6) d) (2, 3, 5)
24. A quadrilateral ABCD has four angles $\alpha^\circ, 2\alpha^\circ, \frac{5\alpha^\circ}{2}$ and $\frac{7\alpha^\circ}{2}$ respectively. Then the difference between maximum and minimum angles is
a) 100° b) 40° c) 80° d) 20°
25. The adjacent sides of a parallelogram are 15cm and 10cm. If length of one diagonal of this parallelogram is 20cm, the length of other diagonal will be is
a) $30\sqrt{10}\text{cm}$ b) $5\sqrt{10}\text{cm}$ c) $10\sqrt{10}\text{cm}$ d) $4\sqrt{10}\text{cm}$
26. Let p and q be real numbers such that $p \neq 0$, $p^3 \neq q$ and $p^3 \neq -q$. If α, β are non zero real numbers satisfying $\alpha + \beta = -p$ and $\alpha^3 + \beta^3 = q$ then a quadratic equation having roots $\frac{\alpha}{\beta}$ and $\frac{\beta}{\alpha}$ is
a) $(p^3 + q)x^2 - (p^3 + 2q)x + p^3 + q = 0$ b) $(p^3 + q)x^2 - (p^3 - 2q)x + p^3 + q = 0$
c) $(p^3 - q)x^2 - (5p^3 - 2q)x + p^3 - q = 0$ d) $(p^3 - q)x^2 - (5p^3 + 2q)x + p^3 - q = 0$

27. If the medians of a ΔABC intersect at G. Then the value of $\frac{\text{area}(\Delta ABC)}{\text{area}(\Delta AGB)} + \frac{\text{area}(\Delta BGC)}{\text{area}(\Delta ABC)} =$

- a) $\frac{1}{3}$ b) 2 c) $\frac{10}{3}$ d) 1

28. If P, Q, R, S are respectively, the mid-points of sides AB, BC, CD and DA of a parallelogram ABCD then $\text{area}(PQRS) = \lambda \text{area}(ABCD)$ then $\lambda =$

- a) $\frac{1}{2}$ b) 1 c) 2 d) 4

29. ΔABC is an isosceles triangle in which $AB = AC$, side BA is produced to D such that $AD = AB$ then $\angle BCD$ is

- a) $\frac{\pi}{2}$ b) $\frac{\pi}{3}$ c) $\frac{\pi}{4}$ d) $\frac{\pi}{6}$

30. If α, β and γ are zeroes of the polynomial $f(x) = px^3 + qx^2 + rx + s$. Then match the value of column - I with that of column - II

	Column - I		Column - II
A)	$\alpha^2 \beta \gamma + \beta^2 \gamma \alpha + \gamma^2 \alpha \beta$	I)	$\frac{r^2 - 2qs}{s^2}$
B)	$\alpha^2 + \beta^2 + \gamma^2$	II)	$\frac{q}{s}$
C)	$\frac{1}{\alpha^2} + \frac{1}{\beta^2} + \frac{1}{\gamma^2}$	III)	$\frac{q^2 - 2rp}{p^2}$
D)	$\frac{1}{\alpha\beta} + \frac{1}{\beta\gamma} + \frac{1}{\gamma\alpha}$	IV)	$\frac{qs}{p^2}$

- a) **A** **B** **C** **D** b) **A** **B** **C** **D**
 I III IV II IV III I II
 c) IV I III II d) III II I IV

31. **Statement - I:** Between two irrational numbers, there exist infinite number of irrational numbers.

Statement - II: Between two real numbers, there exist infinite number of real numbers.

- a) Both statements I and II are correct b) Both statements I and II are incorrect
 c) Statement I is correct and statement II is incorrect.
 d) Statement I is incorrect and statement II is correct.

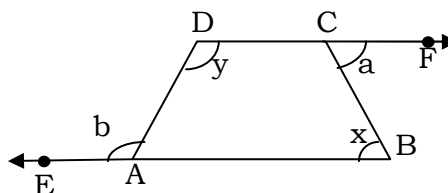
32. If α, β are the zeroes of the polynomial of $f(x) = x^2 - px - p - c$ then

$$\frac{\alpha^2 + 2\alpha + 1}{\alpha^2 + 2\alpha + c} + \frac{\beta^2 + 2\beta + 1}{\beta^2 + 2\beta + c} =$$

- a) 3 b) 2 c) 1 d) 0

33. If the sides BA and DC of quadrilateral ABCD are produced as shown in the given figure. Then.

- a) $x + y - a = -b$ b) $x + y - a = b$
 c) $x - y = a - b$ d) $2(x + y) = a + b$



34. **Statement – I:** If a sum of a pair of opposite angles of a quadrilateral is 180° , the quadrilateral is cyclic.

Statement – II: A line drawn through mid point of a side of a triangle, parallel to another side equal to third side.

Which of the following options holds good ?

- a) Both statement I and statement II are true
 b) Statement I is true but statement II is false
 c) Statement I is false but statement II is true.
 d) Both statement I and Statement II are false
35. In a $\triangle ABC$, P, Q, R are the mid -points of sides BC, CA and AB respectively. If AC = 21cm, BC = 29cm and AB = 30cm. The perimeter of the quadrilateral ARPQ is
- a) 91cm b) 51cm c) 60cm d) 70cm

36. The value of $\frac{1}{1+\sqrt{2}} + \frac{1}{\sqrt{2}+\sqrt{3}} + \frac{1}{\sqrt{3}+\sqrt{4}} + \frac{1}{\sqrt{4}+\sqrt{5}} + \frac{1}{\sqrt{5}+\sqrt{6}} + \frac{1}{\sqrt{6}+\sqrt{7}} + \frac{1}{\sqrt{7}+\sqrt{8}} + \frac{1}{\sqrt{8}+\sqrt{9}}$ is

a) 2 b) 2 c) 4 d) 0

37. ABC is a right angled triangle such that AB = AC and bisector of $\angle A$ meets BC at D. Then

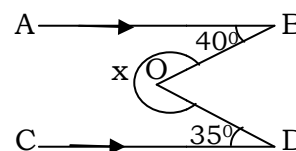
a) BC : AD = 2 : 1 b) BC : AD = 1 : 2 c) BC : AD = 1 : 1 d) None

38. If $x = 2 - \sqrt{3}$ then the value of $x^6 - 12x^5 + 48x^4 - 64x^3 + 2019 =$

- a) 2017 b) 2020 c) 2018 d) 0

39. In the given figure, $AB \parallel CD$. Then the value of x is

- a) 189°
 b) 280°
 c) 215°
 d) 285°



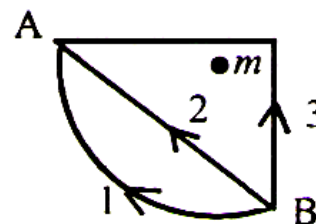
40. The linear equation $2x - y + 3 = 0$ cuts the x -axis at (α, β) . Then

- a) $(2\alpha+3)^2 + (2\beta-3)^2 = 9$ b) $(2\alpha+3)^4 + (2\beta-3)^4 = 9$
 c) $(2\alpha+3)^3 + (2\beta-3)^3 = 0$ d) $(2\alpha+3)^6 + (2\beta-3)^6 = 81$

PHYSICS

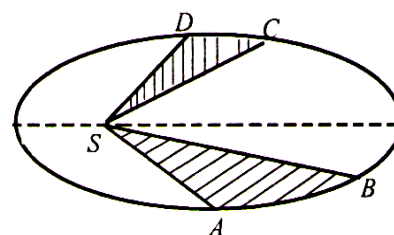
41. If W_1 , W_2 and W_3 represent the work done in moving a particle from B to A along three different paths 1, 2 and 3 respectively (as shown) in a gravitational field of point mass m, then

- a) $W_1 = W_2 = W_3$
 b) $W_1 > W_2 > W_3$
 c) $W_1 < W_2 > W_3$
 d) $W_1 < W_3 < W_2$



42. The figure shown the motion of a planet around the sun in an elliptical orbit with the sun at one focus. The shaded area SAB is twice that of SCD. If t_1 and t_2 are the times taken by the planet to move from A to B and C to D respectively, then

- a) $t_1 = t_2$
 b) $t_2 = 2t_1$
 c) $t_1 = 2t_2$
 d) None



43. An ice cube floats on water in a beaker with $\frac{9}{10}$ th of its volume submerged under water. What fraction of its volume will be submerged if the beaker of water is taken to the moon where the gravity is $\frac{1}{6}$ th that on the earth?

- a) $\frac{9}{10}$ b) $\frac{27}{50}$ c) $\frac{2}{3}$ d) Zero

44. A vessel contains oil of density 0.8 gm cm^{-3} floating over mercury of density 13.6 gm cm^{-3} . A homogeneous sphere floats with half its volume immersed in mercury and the other half in oil. The density of the sphere in gm/cm^3 is

- a) 3.3 b) 6.4 c) 7.2 d) 12.8

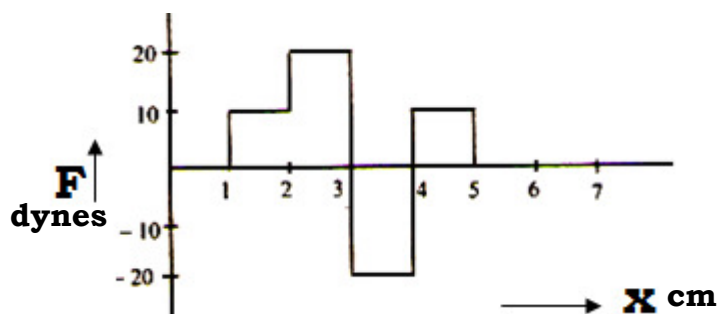
45. A rectangular block $5\text{m} \times 4\text{m} \times 2\text{m}$ lies on a table with its largest surface in contact with the table. The work done to keep it so that block rests on the smallest surface is, if its density is 600 Kg m^{-3} .

- a) 352800J b) Zero c) 376000J d) 240000J

46. A force applied by an engine on a train of mass $2.05 \times 10^6 \text{ kg}$ changes its velocity from 5 ms^{-1} to 25 ms^{-1} in 5 minutes. The power of the engine is

- a) 1.025MW b) 2.05MW c) 5MW d) 6MW

47. The relationship between force and position is as shown in the figure. The work done by the force in displacing the body from $x = 1 \text{ cm}$ to $x = 5 \text{ cm}$ is



- a) 20erg
b) 60erg
c) 70erg
d) 700erg

48. A bullet moving with a speed of 200 ms^{-1} strikes a bag of sand and remains in it. The masses of bag and bullet are 4.5 Kg and 500 g respectively. If the sand bag is free to move, its speed is

- a) 4 ms^{-1} b) 10 ms^{-1} c) 20 ms^{-1} d) 40 ms^{-1}

49. A particle of mass 1 Kg moves along X – direction with a constant velocity 2 ms^{-1} . A force of 2 N is applied on it along Y-direction . Velocity of the body 4 seconds after the force is applied.

- a) $\sqrt{34} \text{ ms}^{-1}$ b) $3\sqrt{34} \text{ ms}^{-1}$ c) $4\sqrt{17} \text{ ms}^{-1}$ d) $2\sqrt{17} \text{ ms}^{-1}$

50. A bucket containing water of depth 10 cm is kept in a lift which is moving vertically upwards with an acceleration which is equal to $1\frac{1}{2}$ times acceleration due to gravity. Then pressure at the bottom of the bucket in N/m^2 is

- a) 250 b) 2500 c) 25×10^{-3} d) 25×10^{-4}

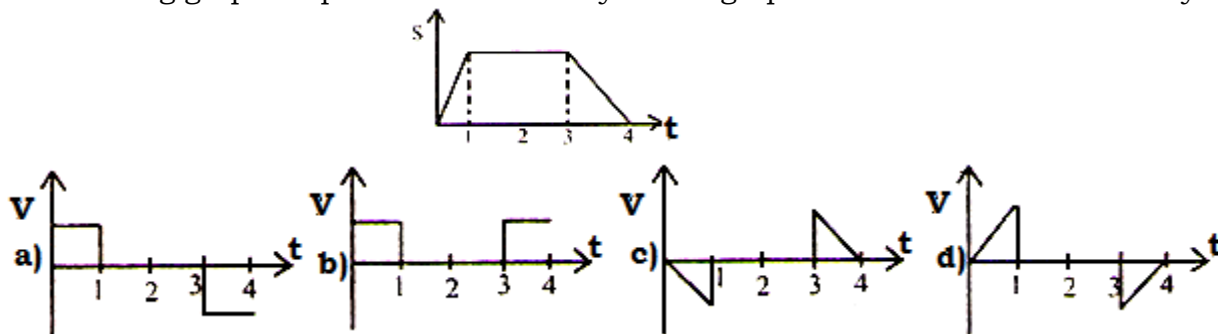
51. A block of mass 50 kg is pulled by a rope of length 6 m on a surface by a force of 106 N applied at the other end. If linear density of the rope is 0.5 Kg m^{-1} , the force acting on 50 kg mass is

- a) 106N b) 53N c) 100N d) 50N

52. A 60 kg man stands on a spring scale in a lift. At some instant, he finds that the scale reading has changed from 60 kg to 50 kg for a while and then comes back to the original mark . What should be conclude? The lift

- a) Was in constant motion upwards b) Was in constant motion downwards
c) While in motion downwards suddenly stopped
d) While in motion upwards suddenly stopped

53. Check up the only correct statement in the following :
- a body has a constant speed but it possesses varying velocity
 - a body has constant velocity but it possesses varying speed
 - a body having a constant speed cannot have an acceleration
 - none of these
54. The displacement time graph of a body moving along a straight line is as shown. Which of the following graphs represents the velocity – time graph for the motion of that body?

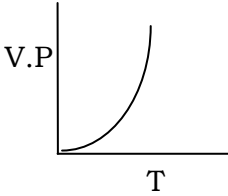


55. A person walks a distance of 30m towards west with a speed of 2ms^{-1} and 40m towards north with a speed of 1.5ms^{-1} . Then average speed and average velocity for his journey.
- $\frac{6}{5}\text{ms}^{-1}, \frac{42}{25}\text{ms}^{-1}$
 - $\frac{42}{25}\text{ms}^{-1}, \frac{6}{5}\text{ms}^{-1}$
 - $20\text{ms}^{-1}, 25\text{ms}^{-1}$
 - $25\text{ms}^{-1}, 20\text{ms}^{-1}$
56. An athlete completes one round of a circular track of radius R in 40sec. What will be his displacement at the end of 2 min 20 seconds?
- 7R
 - 2R
 - $2\pi R$
 - $7\pi R$
57. Two particles of same mass 'm' go round a circle of radius r under the action of there mutual gravitational attraction. Then speed of each particle is
- $\sqrt{\frac{Gm}{r}}$
 - $\sqrt{\frac{Gm}{2r}}$
 - $\sqrt{\frac{Gm}{4r}}$
 - $\sqrt{\frac{Gm}{8r}}$
58. A body dropped from a height h. It covers a distance $\frac{9h}{25}$ in the last second of fall. The height h is
- 102.5m
 - 112.5m
 - 122.5m
 - 132.5m
59. A ball is thrown vertically upwards from the ground and a boy gazing out of the window sees it moving up past him at 9.8 ms^{-1} . The window is 14.7m above the ground. The time taken by the ball to reach the maximum height above the window is
- 1s
 - 2s
 - $\sqrt{3}\text{ s}$
 - None
60. A ball is released from the top of a tower of height h meters. It takes T seconds to reach the ground. What is the position of the ball in $T/3$ seconds?
- $h/9$ metres from the ground
 - $7h/9$ metres from the ground
 - $8h/9$ metres from the ground
 - $17h/18$ metres from the ground

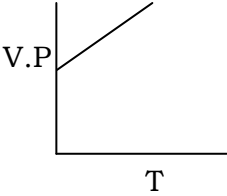
CHEMISTRY

61. The amount of Na_2CO_3 (MW =106) required to get 0.2mole of NaHCO_3 (MW=84) isg
- 10.6
 - 5.3
 - 21.2
 - 7.62
62. Number of Mg atoms present in 4.8g of Magnesium metal is
- 2.4×10^{21}
 - 3.6×10^{21}
 - 1.2×10^{23}
 - 1.2×10^{22}
63. An element with mass number 81 contains 31.7% more neutrons as compared to protons. Assign the atomic symbol
- $^{81}_{34}\text{Br}$
 - $^{81}_{35}\text{Br}$
 - $^{81}_{34}\text{Te}$
 - $^{81}_{36}\text{Kr}$
64. Oxygen has three isotopes O^{16} , O^{17} and O^{18} . Carbon consists of C^{12} and C^{13} isotopes. How many types of CO_2 molecules can be formed?
- 6
 - 9
 - 12
 - 18

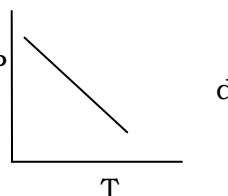
65. Which of the following set of ions are isoelectronic species?
 a) $Mn^{+2}, Fe^{+2}, Ni^{+2}$ b) V^{+2}, Co^{+3}, Cu^{+2} c) Cr^{+3}, Zn^{+2}, S^{-2} d) P^{-3}, Cl^{-}, Ti^{+3}
66. Which of the following curve is correct representation of vapour pressure against temperature?
- a)



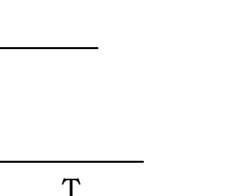
b)



c)



d)


67. Which of the following statements are correct?
 I) The boiling point of a solution containing non volatile solute is greater than that of pure solvent
 II) The temperature where the vapour pressure of liquid becomes equals to atmospheric pressure is called its boiling point
 III) Vapour pressure of pure solvent is less than vapour pressure of solution containing non volatile solute
 a) I, II only b) II, III only c) I, III only d) All are correct
68. The diffusion of particles in a given colloidal solution is
 a) Rapid than that in true solution b) Slower than that in suspension
 c) Slower than that in true solution d) Equal as in true solution
69. Which of the following constitutes irreversible colloidal system with water as dispersion medium?
 a) Clay b) Platinum c) $Fe(OH)_3$ d) All the above
70. Blue colour of the sky is due to
 a) Brownian moment b) Tyndall effect c) Electrophoresis d) Electroosmosis
71. 5.6g of an organic compound containing carbon and hydrogen only, gave 17.6g of CO_2 on complete combustion. Then the percentage of carbon is
 a) 85.7% b) 42.85% c) 80% d) 92%
72. Melting point of a given substance is a measure of purity of the compound. The melting point of a given solid is the temperature at which solid melts at:
 a) 0.1 atm b) 10 atm c) 1 atm d) 0.01 atm
73. Which of the following statements is not true?
 a) Sublimation occurs, when vapour pressure of solid is equal to that of atmospheric pressure
 b) $HgCl_2$, NH_4Cl and I_2 can undergo sublimation
 c) Sublimation is an endothermic process
 d) Sublimation is a purification technic applicable, when impurities are volatile
74. Which of the following statements are true?
 a) From the mixture of benzoic acid and water, benzoic acid can be separated using benzene as a solvent.
 b) For simple distillation, difference in boiling points of two liquids should be 30 – 50K
 c) For fractional distillation, difference in boiling points of component liquids of a given mixture should be 10K
 d) All the above statements are true
75. Which of the following statements is not true?
 a) Evaporation is an endothermic process
 b) Melting of a solid is exothermic process
 c) Temperature of system remains unchanged at boiling point of liquids eventhough energy is provided to system
 d) Unit of pressure in SI system is pascal.

76. An aqueous solution contains 24 g of KCl in 168g of water. Mass percentage of solute (KCl) present in the solution is
 a) 14.3% b) 12.5% c) 25% d) 75%
77. Which of the following combination is wrong?
 a) Mist – Aerosol – dispersed medium – gas
 b) Face cream – Emulsion – dispersed phase – liquid
 c) Pumice stone – Aerosol – dispersed medium – gas
 d) Milky gas – solid sol – dispersed medium – solid
78. When a liquid is vapourised, then the temperature of the system.
 a) Decreases b) Increases c) Remains same d) Becomes 100°C
79. Which of the following is liquid at 20°C temperature?
 a) Copper b) Francium c) Mercury d) Thorium
80. Find the number of moles of barium phosphate which contains 3.2×10^{-3} grams of oxygen.
 a) 2.5×10^{-5} b) 2.5×10^{-4} c) 2.5×10^{-3} d) 2.5×10^{-2}

BIOLOGY

81. Identify the incorrect statement in the following
 a) Collenchyma is a simple, permanent living tissue provides mechanical support to plants.
 b) In certain conditions permanent living tissues produce meristems by dedifferentiation
 c) Phloem is unlike xylem in that materials can move in both directions.
 d) Cells of cork are dead and compactly arranged without intercellular spaces they also have a chemical called lignin in their walls.
82. The girth of the stem (or) Root increases due to
 a) Shoot apical meristem b) Root Apical meristem
 c) Intercalary meristem d) Lateral meristem
83. Identify micronutrient in the following
 a) Copper b) Calcium c) Magnesium d) Sulphur
84. Who suggested that all cells arise from pre existing cells?
 a) Robert Hooke b) Leeuwenhoek c) Virchow d) Schleiden and Schwann
85. Which cell organelle plays a crucial role in detoxifying many poisons and drugs
 a) Lysosomes b) SER c) Golgi complex d) Vacuole
86. The cell organelle concerned with formation of complex sugars like glycoproteins and glycolipids
 a) Chloroplast b) Golgi complex c) E.R d) Lysosomes
87. Identify correct statement in the following
 a) Lysosomes contain powerful digestive enzymes which are active at basic pH
 b) The central vacuole of some plant cells may occupy 50-90% of the cell volume
 c) Mitochondria have single membrane covering and it is deeply folded
 d) Leucoplasts are important for photosynthesis in plants
88. Which of the following is called store house of the cell?
 a) Vacuole b) E.R c) Golgi complex d) Mitochondria
89. Which of the following cell organelles have their own DNA and ribosomes?
 I) Chloroplast II) Mitochondria III) Golgi complex IV) Nucleus
 a) I & II only b) I, II and IV only c) II only d) I, II, III, IV
90. Bacterial cell wall is composed of
 a) Cellulose b) Chitin c) Peptidoglycon d) Suberin
91. The protozoan organism, Leishmania, that causes Kala-azar is spread by
 a) Female culex mosquito b) Female Anopheles mosquito
 c) Female tse tse fly d) Female sand fly
92. A person is suffering from the severe stage of an airborne disease. His lips and finger nails are even turned bluish in colour. Identify the disease
 a) Tuberculosis b) Pneumonia c) Common cold d) Asthma
93. The infective stage of malaria parasite to man is
 a) Amoeboid stage b) Sporozoite stage c) Trophozoite stage d) Ookinete

94. Alexander Fleming who discovered the penicillin, while he was experimenting on
a) *Pencilium notatum* b) *Pencilium chrysogenum*
c) Influenza virus d) *Streptococcus bacteria*
95. The type of vaccine used against the prevention of tetanus is a
a) Attenuated whole agent vaccine b) Toxoid vaccine
c) Inactivated whole agent vaccine d) Sub unit vaccine
96. The type of cartilage that shows no growth is
a) Elastic cartilage b) Hyaline cartilage
c) Fibrous cartilage d) Both a & b
97. Sahiwal is a local breed of
a) *Bos bubalis*, of Rajasthan b) *Bos indicus* of Punjab
c) *Bos indicus* of Rajasthan d) *Bos bubalis* of Haryana
98. Which among the given below is a bottom feeding carp of freshwater, in aquaculture.
a) *Cirrhinus mrigala* b) *Labeo rohita* c) *Cyprinus carpio* d) *Pseudorasbora daniconius*
99. The avascular tissue among the following:
a) Adipose connective tissue b) Epithelial tissue
c) Aerolar connective tissue d) Smooth muscle tissue
100. Hyline, and Hubbard are the
a) Varieties of European honey bees used in Apiculture
b) The hybrid layer and broiler poultry breeds in India.
c) Exotic variety of milch and draught variety in cattle
d) Fresh water and marine water prawns.

***** THE END *****

VELAMMAL KNOWLEDGE PARK, PONNERI

VKP MERIT SCHOLARSHIP TEST 2018

(FOR STUDENTS MOVING TO CLASS-X IN 2019)

KEY- IX

MATHEMATICS								PHYSICS				CHEMISTRY				BIOLOGY			
Q	A	Q	A	Q	A	Q	A	Q	A	Q	A	Q	A	Q	A	Q	A	Q	A
1	c	11	c	21	c	31	a	41	a	51	c	61	a	71	a	81	d	91	d
2	a	12	b	22	b	32	c	42	c	52	c	62	c	72	c	82	d	92	b
3	c	13	c	23	b	33	b	43	a	53	a	63	b	73	d	83	a	93	b
4	a	14	b	24	a	34	b	44	c	54	a	64	c	74	d	84	c	94	c
5	a	15	d	25	b	35	b	45	a	55	b	65	d	75	b	85	b	95	b
6	c	16	b	26	b	36	b	46	b	56	b	66	a	76	b	86	b	96	c
7	b	17	c	27	c	37	a	47	a	57	c	67	a	77	c	87	b	97	b
8	c	18	a	28	a	38	c	48	c	58	c	68	c	78	a	88	a	98	c
9	b	19	b	29	a	39	d	49	d	59	a	69	d	79	b	89	a	99	b
10	c	20	a	30	b	40	a	50	b	60	c	70	b	80	a	90	c	100	b