Sample Questions for ASAT (ALLEN Scholarship Cum Admission Test)

CLASSROOM CONTACT PROGRAMME

NURTURE COURSE (FOR X to XI MOVING STUDENTS)
1. This booklet is your Question Paper. DO NOT break seal of Booklet until the invigilator instructs to do so.

2. Fill your Form No. in the space provided on the top of this page.

3. The Answer Sheet is provided to you separately which is a machine readable Optical Response Sheet (ORS). You have to mark your answers in the ORS by darkening bubble, as per your answer choice, by using black & blue ball point pen.


5. After breaking the Question Paper seal, check the following :
   a. There are 19 pages in the booklet containing question no. 1 to 100 under 2 Parts i.e. Part-I & Part-II.
   b. Part-I contains total 20 questions of IQ (Mental Ability).
   c. Part-II contains total 80 questions under 4 sections which are-Section (A) : Physics, Section (B) : Chemistry, Section (C) : Mathematics* & Section (D) : Biology*.

6. Marking Scheme :
   a. If darkened bubble is RIGHT answer : 4 Marks.
   b. If no bubble is darkened in any question: No Mark.
   c. Only for part - II : If darkened bubble is WRONG answer: -1 Mark (Minus One Mark).

7. Think wisely before darkening bubble as there is negative marking for wrong answer.

8. If you are found involved in cheating or disturbing others then your ORS will be cancelled.

9. Do not put any stain on ORS and hand it over back properly to the invigilator.

**Things NOT ALLOWED in EXAM HALL** : Blank Paper, clipboard, log table, slide rule, calculator, camera, mobile and any electronic or electrical gadget. If you are carrying any of these then keep them at a place specified by invigilator at your own risk.

*For Medical Stream attempt Only Section (A) : Physics, Section (B) : Chemistry, Section-C (Mathmatics).

*For Medical Stream attempt Only Section-A (Physics), Section-B (Chemistry) & Section-D (Biology).
Part - I
IQ (Mental Ability)

This section contains 20 multiple choice questions. Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

1. Find the next term in the given alphabet series–
   YEB, WFD, UHG, SKI, ?
   (1) QNL (2) QOL (3) QGL (4) TOL

2. What is the mirror image of b3k4s
   (1) (2) (3) (4)

3. Which one will replace the question mark ?
   \[
   \begin{array}{ccc}
   5 & 9 & 6 \\
   28 & 8 & ? \\
   5 & 6 & ?
   \end{array}
   \]
   (1) 11 (2) 53 (3) 36 (4) 10

4. Two positions of a dice are shown. Which number will appear on the face opposite to 5?
   \[
   \begin{array}{ccc}
   3 & 1 & 5 \\
   2 & 6 & ?
   \end{array}
   \]
   (1) 1 (2) 2 (3) 4 (4) 6

5. Raman is sixth from the left end and Pintu is tenth from the right end in a row of boys. If there are six boys between Raman and Pintu, how many boys are there in the row ?
   (1) 25 (2) 24 (3) 20 (4) 22

6. Find the number of rectangles in the given figure
   \[
   \begin{array}{ccc}
   (1) 10 & (2) 16 & (3) 18 & (4) 20
   \end{array}
   \]
Sample questions for ASAT : Nurture Course

7. If in a certain code, STUDENT is written as RSTEDMS, then how would TEACHER be written in the same code ?
   (1) SZZDGEQ  (2) SZDDGEQ  
   (3) SDZDGDQ  (4) SDZCGDQ

8. A vagabond runs out of cigarettes. He searches for the stubs, having learnt that 7 stubs can make a new cigarette, good enough to be smoked, he gathers 49 stubs. If he smokes 1 cigarette every three - quarters of an hour, how long will his supply last ?
   (1) 5.25 hr  (2) 6 hr 
   (3) 4.5 hr  (4) 3 hr

9. Y is in the East of X which is in the North of Z. If P is in the south of Z, then in which direction of Y is P ?
   (1) North  (2) South 
   (3) South-East  (4) None of these

10. In the following question, two statements are given followed by three or four conclusions numbered I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

   Statements : All branches are flowers. All flowers are leaves.

   Conclusions :
   I. All branches are leaves.
   II. All leaves are branches.
   III. All flowers are branches.
   IV. Some leaves are branches.
   (1) None follows 
   (2) Only I and IV follow 
   (3) Only II and III follow 
   (4) All follow
11. The figure given below shows the three different positions of a dice. Which number will appear opposite to number 4?

![Dice Image]

(1) 5 (2) 1 (3) 3 (4) 2

12. If P is the brother of the son of Q’s Son, how is P related to Q?

(1) Son (2) Brother (3) Cousin (4) Grandson

13. Neelam, who is Rohit’s daughter, says to Indu, “Your mother Reeta is the younger sister of my father, who is the third child of Sohanji.” How is Sohanji related to Indu?

(1) Maternal-uncle (2) Maternal Grandfather (3) Father (4) Father-in-law

14. In the following question, two statements are given followed by three or four conclusions numbered I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

**Statements:** All politicians are honest.

All honest are fair.

**Conclusions:**

I. Some honest are politician.

II. No honest is politician.

III. Some fair are politician.

IV. All fair are politician.

(1) None follows

(2) Only I follows

(3) Only I and II follow

(4) Only I and III follow

---

**Answers:**

11. The number opposite to 4 is 2.

12. P is the brother of Rohit’s son, who is the son of Q’s son, so P is the grandson of Q.

13. Sohanji is the maternal uncle of Indu.

14. (1) None follows
15. Find the least square number which is exactly divisible by 10, 12, 15 and 18?
   (1) 900
   (2) 400
   (3) 1600
   (4) none

16. How many triangles and squares are there in the following figure?
   (1) 28 triangles, 5 squares
   (2) 24 triangles, 4 squares
   (3) 28 triangles, 4 squares
   (4) 24 triangles, 5 squares

17. If 27 * 3 = 243
    5 * 4 = 80
    then what is the value of 3 * 7?
    (1) 84
    (2) 147
    (3) 63
    (4) 23

18. A clock is set to show the correct time at 11 A.M. The clock gains 12 minutes in 12 hours. What will be the true time when the watch indicates 1 P.M. on 6th day?
    (1) 10 A.M.
    (2) 11 A.M.
    (3) 12 noon
    (4) none of these

19. In a day, how many times the hour hand & minute hand of a clock are at right angles to each other?
    (1) 40
    (2) 44
    (3) 48
    (4) 45

20. If in a leap year it was Monday on 1st January, then the number of maximum Saturdays the leap year can have, is
    (1) 51
    (2) 52
    (3) 53
    (4) 54
PART-II

SECTION-A : PHYSICS

This section contains 20 multiple choice questions. Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

21. If an electric iron of 1200 W is used for 30 minutes every day, electric energy consumed in the month of April is
   (1) 5 kWh      (2) 10 kWh      (3) 16 kWh      (4) 18 kWh

22. Identify the given circuit in which the electrical components have been properly connected
   (1) (i)       (2) (ii)       (3) (iii)      (4) (iv)

23. A bead starts sliding from a point P on a frictionless wire with initial velocity of 5 ms\(^{-1}\). Find the velocity of bead at point R (take g = 10 ms\(^{-2}\))
   (1) 7 m/s      (2) \(5\sqrt{2}\) m/s      (3) \(6\sqrt{2}\) m/s      (4) 6 m/s

24. In a hydroelectric power plant more electrical power can be generated if water falls from a greater height because
   (1) its temperature increases
   (2) larger amount of potential energy is converted into kinetic energy
   (3) the electricity content of water increases with height
   (4) more water molecules dissociate into ions
25. The weight of an object in the coal mine, sea level, at the top of the mountain are \( W_1, W_2, \) & \( W_3 \) respectively, then :-

(1) \( W_1 < W_2 > W_3 \)
(2) \( W_1 = W_2 = W_3 \)
(3) \( W_1 < W_2 < W_3 \)
(4) \( W_1 > W_2 > W_3 \)

26. The incorrect statement regarding the lines of force of the magnetic field \( B \) is

(1) Magnetic intensity is a measure of lines of force passing through unit area held normal to it
(2) Magnetic lines of force form a close curve
(3) Inside a magnet, its magnetic lines of force move from north pole of a magnet towards its south pole
(4) Due to a magnet, magnetic lines of force never cut each other

27. In the arrangement shown in Figure there are two coils wound on a non-conducting cylindrical rod. Initially the key is not inserted. Then the key is inserted and later removed. Then

(1) the deflection in the galvanometer remains zero throughout
(2) there is a momentary deflection in the galvanometer but it dies out shortly and there is no effect when the key is removed
(3) there are momentary galvanometer deflections that die out shortly; the deflections are in the same direction
(4) there are momentary galvanometer deflections that die out shortly; the deflections are in opposite directions
28. A girl stands on a box having 60 cm length, 40 cm breadth and 20 cm width in three ways. In which of the following cases, pressure exerted by the block on the ground will be maximum when length and breadth form the base
(1) maximum when length and breadth form the base
(2) maximum when breadth and width form the base
(3) maximum when width and length form the base
(4) the same in all the above three cases

29. The magnetic compass is not useful for navigation near the magnetic poles because
(1) The magnetic field near the poles is zero
(2) The magnetic field near the poles is almost vertical
(3) At low temperature, the compass needle looses its magnetic properties
(4) Neither of the above

30. An electric kettle consumes 1 kW of electric power when operated at 220 V. A fuse wire of what rating must be used for it?
(1) 1 A (2) 2 A (3) 4 A (4) 5 A

31. Demagnetisation of magnets can be done by
(1) Rough handling
(2) Heating
(3) Magnetising in the opposite direction
(4) All the above

32. An electric lamp uses energy at the rate of 48 W on a 12 V supply. How much charge passes through the lamp in 2.0 seconds?
(1) 4 amperes (2) 8 amperes
(3) 48 coulombs (4) 8 coulombs

33. In a conducting wire current is flowing from north to south. A positive charge is moving in upward direction is above the wire. Charge will deviated in the direction :-
(1) North (2) South
(3) East (4) West
34. A planet revolves around the sun in elliptical orbit as shown. It is known that product of mass of planet (m), its velocity (v) & distance from sun (r) is same for position A & B [i.e. \(mv_1r_1 = mv_2r_2\)]. A scientist decided to find the mass of planet and thus measures \(v_1, v_2, r_1\) & \(r_2\). What is the mass of planet? (Given: \(r_1 = 10^8\) km, \(r_2 = 1.5 \times 10^8\) km, \(v_1 = 2.25\) m/s & \(v_2 = 1.5\) m/s)

\[(1) 6 \times 10^{24}\) kg
\[(2) 2.25 \times 10^{16}\) kg
\[(3) 1.5 \times 10^{16}\) kg
\[(4) Cannot be determined from the given data\]

35. The device used for producing electric current is called a :-

(1) generator
(2) galvanometer
(3) ammeter
(4) motor

36. A child is standing in front of a magic mirror. She finds the image of her head bigger, the middle portion of her body of the same size and that of the legs smaller. The following is the order of combinations for the magic mirror from the top.

(1) Plane, convex and concave
(2) Convex, concave and plane
(3) Concave, plane and convex
(4) Convex, plane and concave

37. You are given water, mustard oil, glycerine and kerosene. In which of these media a ray of light incident obliquely at same angle would bend the most?

(1) Kerosene
(2) Water
(3) Mustard oil
(4) Glycerine
SECTION-B: CHEMISTRY

This section contains 20 multiple choice questions. Each question has four choices (1), (2), (3) and (4) out of which ONLY ONE is correct.

38. Myopia is due to
   (1) Elongation of eye ball
   (2) Irregular change in focal length
   (3) Shortening of eye ball
   (4) Older age

39. Choose the incorrect statement
   (1) Fleming’s right-hand rule is a simple rule to know the direction of induced current
   (2) The right-hand thumb rule is used to find the direction of magnetic fields due to current carrying conductors
   (3) The difference between the direct and alternating currents is that the direct current always flows in one direction, whereas the alternating current reverses its direction periodically
   (4) In India the AC changes direction after every (1/50) second.

40. A moving charge will gain kinetic energy due to the application of :-
   (1) Electric field
   (2) Magnetic field
   (3) Both of these
   (4) None of these

41. Calcium phosphate is present in tooth enamel. Its nature is
   (1) Acidic
   (2) Basic
   (3) Neutral
   (4) Amphoteric

42. The electronic distribution in aluminium will be
   (1) 2, 8, 1
   (2) 2, 8, 3
   (3) 2, 8, 5
   (4) 2, 8, 2

43. Avogadro’s number represents the number of atoms in-
   (1) 12 g of C
   (2) 320 g of sulphur
   (3) 32 g of oxygen
   (4) 12.7 g of iodine
Sample questions for ASAT : Nurture Course

44. Acetic acid was added to a solid X kept in a test tube. A colourless and odourless gas was evolved. The gas was passed through lime water which turned milky. It was concluded that
(1) solid X is sodium hydroxide and the gas evolved is CO₂.
(2) solid X is sodium bicarbonate and the gas evolved is CO₂.
(3) solid X is sodium acetate and the gas evolved is CO₂.
(4) solid X is sodium chloride and the gas evolved is CO₂.

45. Correct statement among the following.
(1) Homologous have same chemical & physical properties.
(2) Homologous have same general formula & physical properties.
(3) Homologous have different chemical properties with different general formula.
(4) Homologous have same chemical properties with same general formula.

46. Which of the following metal does not react with either cold or hot water?
(1) Mg  (2) Ca  (3) Na  (4) Fe

47. Which condition out of the following will increase the evaporation of water?
(1) Increase in temperature of water
(2) Decrease in temperature of water
(3) Less exposed surface area of water
(4) Adding common salt to water

48. Which of the following element is a member of third period?
(1) K  (2) Ca  (3) Ar  (4) Sc

49. For reaction \( \text{N}_2(g) + 3\text{H}_2(g) \rightarrow 2\text{NH}_3(g) \)
6 moles of \( \text{H}_2 \) is taken with excess of \( \text{N}_2 \) gas.
Mass of ammonia gas produced is
(1) 51 gm  (2) 34 gm  (3) 17 gm  (4) 68 gm
50. Galvanisation is a method of protecting iron from rusting by coating with a thin layer of:  
(1) Gallium  (2) Aluminium  
(3) Zinc  (4) Silver  

51. The second next atom in the period to the element essential constituent of all organic compound belongs to group number:  
(1) 14  (2) 4  
(3) 16  (4) 12  

52. Elements with valency 1 will be –  
(1) Always metal  
(2) Either metal or metalloid  
(3) Always metalloid  
(4) May be metal or non-metal  

53. The first model of an atom was given by:  
(1) Rutherford  (2) E.Goldstein  
(3) N.Bohr  (4) J.J. thomson  

54. In the reaction $\text{H}_2 + \text{Cl}_2 \rightarrow 2\text{HCl}$:  
(1) Hydrogen undergoes oxidation  
(2) Chlorine undergoes oxidation  
(3) Hydrogen act as oxidising agent  
(4) Chlorine act as reducing agent  

55. Which of the given elements A, B, C, D and E with atomic number 2, 3, 7, 10 and 30 respectively belongs to the same period:  
(1) A,B,C  (2) A,D,E  
(3) B,D,E  (4) B,C,D  

56. An atom with 3 protons and 4 neutrons will have a valency of:  
(1) 3  (2) 7  (3) 1  (4) 4  

57. The following reaction:  
$4\text{NH}_3(g) + 5\text{O}_2(g) \rightarrow 4\text{NO}(g) + 6\text{H}_2\text{O}(g)$  
is an example of:  
(1) Displacement reaction  
(2) Neutralisation reaction  
(3) Redox reaction  
(4) Both (2) & (3)  

58. Which of the following is a double displacement reaction:  
(1) $\text{Pb} + \text{CuCl}_2 \rightarrow \text{PbCl}_2 + \text{Cu}$  
(2) $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$  
(3) $\text{CH}_4 + \text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$  
(4) $\text{Na}_2\text{SO}_4 + \text{BaCl}_2 \rightarrow 2\text{NaCl} + \text{BaSO}_4$
59. An aqueous solution turns red litmus solution blue. Excess addition of which of the following solution would reverse the change -
(1) quick lime
(2) ammonium hydroxide solution
(3) hydrochloric acid
(4) baking powder

60. Conversion of sulphide ore into oxide ore on heating in presence of excess of air is called:
(1) Calcination
(2) Roasting
(3) Pulverization
(4) Froth floatation

59. The present ratio of ages of P & Q is 4 : 6. If the sum of present ages of P & Q is 50 years, then the sum of ages of P & Q before 4 years is
(1) 52 years
(2) 50 years
(3) 42 years
(4) 26 years

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(3) 42 years
(4) 26 years

62. \[
\frac{\cos 70^\circ}{\sin 20^\circ} + \frac{\cos 59^\circ}{\sin 31^\circ} - 8 \sin^2 30^\circ\]
is equal to
(1) 1
(2) –1
(3) 0
(4) 2

63. A boat goes 30 km upstream and 44 km downstream in 10 hours. In 13 hour it can go 40 km upstream and 55 km downstream. If speed of the boat in still water is x km/hr and speed of stream be y km/hr, then -
(1) x = 8
(2) y = 4
(3) x = 3
(4) y = 8

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(1) Calcination
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(1) x = 8
(2) y = 4
(3) x = 3
(4) y = 8
64. The number of equations of the form \( ax^2 + bx + 2 = 0 \) that can be formed if the equation have real roots (\( a \geq 2, \ b \leq 6 \) and a and b are positive integers) is/are-
   (1) 2  (2) 4  
   (3) 6  (4) infinite

65. If the sum of squares of LCM & HCF of two positive numbers is 3609 and their LCM is 57 more than their HCF, then the product of two number's is -
   (1) 360  (2) 609  (3) 180  (4) 810

66. Let \( \Delta ABC \) and \( \Delta DEF \) are similar triangles and their areas be respectively 64 cm\(^2\) and 121 cm\(^2\). If \( EF = 15.4 \) cm, then \( BC \) is equal to -
   (1) 11.4 cm  (2) 11.2 cm  (3) 11 cm  (4) 11.3 cm

67. A number when divided by a divisor leaves a remainder of 24, when twice the original number is divided by the same divisor the remainder is 11, then divisor is -
   (1) 13  (2) 59  (3) 35  (4) 37

68. If the diameter of a sphere is decreased by 25%, then by what percent its curved area would decrease ?
   (1) 43.75%  (2) 50%  (3) 37%  (4) none of these

69. The perimeter of a triangular field is 240 m its two sides are 78 m and 50 m, then area of triangular field is
   (1) 1650.2 m\(^2\)  (2) 1662 m\(^2\)  (3) 1680 m\(^2\)  (4) 1672 m\(^2\)
Sample questions for ASAT : Nurture Course

70. The radius and the slant height of a cone are in the ratio of 4 : 7. If its curved area is 792 cm², then its radius will be -
   (1) 9 cm (2) 6 cm (3) 12 cm (4) 15 cm

71. If \((x^2 + x + 1)\) is divided by \((x - 5)\), then remainder is -
   (1) 0 (2) 31 (3) –31 (4) 33

72. When the polynomial \(P(x) = x^3 + 3x^2 - 2Ax + 3\), where A is constant, is divided by \(x^2 + 1\) and remainder is \(-5x\), then A is
   (1) –3 (2) –2 (3) 2 (4) 3

73. If \(\sin \theta + \cosec \theta = 2\), then the value of \(\sin^{2016}\theta + \cosec^{2016}\theta\), is -
   (1) 1 (2) 2016 (3) 2 (4) 4032

74. If one root of quadratic equation \(2x^2 - px + q = 0\) is \(2 + \sqrt{3}\) \((p,q \in \text{ rational numbers})\), then \(\frac{p}{q}\) is equal to -
   (1) 2 (2) 3 (3) 4 (4) 8

75. If \(\sin^0 + \cosec^0 = 2\), then the value of \(\sin^{2016}0 + \cosec^{2016}0\), is -
   (1) 1 (2) 2016 (3) 2 (4) 4032

76. Median of a group of 20 distinct numbers was found to be 55. If largest 8 numbers are increased by 10, then median of the new group, is-
   (1) 55 (2) 65 (3) 55.5 (4) can't be determined

70. यदि कुल बीत्रय तहत डाल तो चाचा है। अनुप मौलानामे \(x\) विभाजित है, तो इसकी त्रिभुज होगी
   (1) 9 cm (2) 6 cm (3) 12 cm (4) 15 cm

71. \(x^2 + x + 1\) को \((x - 5)\) से भाजित किया जाये तो \(x\) का फल होगा -
   (1) 0 (2) 31 (3) –31 (4) 33

72. 'n' क्या माना, जिसके लिये दो सम - \(63, 65, 67 \ldots \) और \(3, 10, 17, \ldots \) आसान नहीं है, होगा -
   (1) 14 (2) 15 (3) 13 (4) 12

73. \(P(x) = x^3 + 3x^2 - 2Ax + 3\), का \(A\) ज्ञात है, \(x^2 + 1\) से भाजित है। \(x^2 + 1\) का भाजन होगा -
   (1) –3 (2) –2 (3) 2 (4) 3

74. \(2x^2 - px + q = 0\) का एक मूल \(2 + \sqrt{3}\) \((p,q \in \text{ पूरे व ज्यादा है})\) हो, \(\frac{p}{q}\) का मान नहीं होगा -
   (1) 2 (2) 3 (3) 4 (4) 8

75. \(\sin^0 + \cosec^0 = 2\), \(\sin^{2016}0 + \cosec^{2016}0\) का मान नहीं होगा -
   (1) 1 (2) 2016 (3) 2 (4) 4032

76. \(20\text{विंदु} = \text{संख्या अंकों के समुह}\) की संख्या \(9\) में \(8\) संख्या अंकों की समानता दो जो तेजी से \(9\) की संख्या अंकों की समानता होगी?
   (1) 55 (2) 65 (3) 55.5 (4) तात्त्विक फलस्वरूप है।
77. If parallelogram ABCD and rectangle ABEM are of equal area, then

(1) Perimeter of ABCD = perimeter of ABEM
(2) Perimeter of ABCD < perimeter of ABEM
(3) Perimeter of ABCD > perimeter of ABEM
(4) Perimeter of ABCD = \( \frac{1}{2} \) perimeter of ABEM

78. If a pair of linear equations is consistent, then lines will be

(1) parallel
(2) always coincident
(3) intersecting or coincident
(4) always intersecting

79. A bag contains 5 black & 6 white balls. If two balls are drawn together at random, then the probability that these being of different colour is

(1) \( \frac{5}{11} \)
(2) \( \frac{6}{11} \)
(3) \( \frac{11}{16} \)
(4) \( \frac{6}{16} \)

80. If \( \tan \theta + \sec \theta = \ell \), then \( \sec \theta \) is equal to

(1) \( \frac{2\ell}{\ell^2 - 1} \)
(2) \( \frac{\ell^2 + 1}{2\ell} \)
(3) \( \frac{\ell^2 - 1}{2\ell} \)
(4) \( \frac{2\ell}{\ell^2 + 1} \)
81. The space between meninges is filled with ........
   (1) Lymph
   (2) Blood plasma
   (3) Cerebrospinal fluid
   (4) ACTH

82. Testes produce ......... hormone.
   (1) Estrogen
   (2) Testosterone
   (3) Progesterone
   (4) Both estrogen and progesterone

83. Which genotype represents a true dihybrid condition?
   (1) ttrr
   (2) Ttrr
   (3) TtRr
   (4) TTRr

84. What is the energy currency for most cellular processes?
   (1) ATP
   (2) ADP
   (3) GTP
   (4) AMP

85. Which of the following statement/s is/are incorrect?
   (1) Auxin is synthesized at shoot tip.
   (2) Due to auxin, plant appears to bend towards dark.
   (3) Gibberellins help in the growth of stem.
   (4) Cell division is promoted by cytokinin.

86. In the kidney the correct sequence of formation of urine involves the following processes.
   (1) Glomerular filtration, Reabsorption, Tubular secretion
   (2) Reabsorption, Filtration, Secretion
   (3) Filtration, Secretion, Reabsorption
   (4) Reabsorption, Secretion, Filtration
87. Malaria is caused by a ...........
   (1) Protozoan  (2) Fungi
   (3) Virus      (4) Bacteria

88. Muscles contain special protein called ........... that help in muscle movement.
   (1) Receptor proteins
   (2) Enzymes
   (3) Nucleoprotein (DNA, RNA)
   (4) Contractile protein (actin and myosin)

89. Which one of the following macronutrient is not supplied by soil ?
   (1) Phosphorus
   (2) Calcium
   (3) Sulphur
   (4) Carbon

90. The function of mammalian kidney is to excrete
   (1) extra salts, urea and excess water
   (2) extra urea, excess water and excess amino acids
   (3) extra urea, extra carbohydrates and extra water
   (4) extra urea, extra salts and extra sugar

91. In human digestive system, which organ secretes enzyme pepsin ?
   (1) Pancreas
   (2) Stomach
   (3) Liver
   (4) Gall bladder

92. In which of the following process Pyruvate is converted into alcohol and CO₂ ?
   (1) Aerobic respiration  (2) Fermentation
   (3) Glycolysis         (4) Kreb's cycle

93. The autotrophic mode of nutrition requires
   (1) Carbon dioxide and water
   (2) Chlorophyll
   (3) Sunlight
   (4) All of the above
94. Which is the largest phylum of animal kingdom?
   (1) Arthropoda  (2) Mollusca
   (3) Porifera     (4) Cnidaria

95. The major driving force for the movement of water in xylem is
   (1) Gravitational force
   (2) Transpirational pull
   (3) Cohesion
   (4) Adhesion

96. Which of the following plants have unisexual flowers?
   (1) Papaya, Watermelon
   (2) Hibiscus, Mustard
   (3) Papaya, Hibiscus
   (4) Watermelon, Mustard

97. What is the correct sequence of trophic level?
   (1) Secondary consumer → primary consumer → producer
   (2) Primary consumer → secondary consumer → tertiary consumer → producer
   (3) Producer → primary consumer → secondary consumer → tertiary consumer
   (4) None of these

98. Which are the vessels that carry blood away from the heart to various organs of the body?
   (1) Arteries   (2) Veins
   (3) Vena cava   (4) Capillaries

99. Which instrument is used in measuring blood pressure?
   (1) Sphygmomanometer  (2) Thermometer
   (3) Stethoscope    (4) Hydrometer

100. Movement of food through oesophagus is mainly due to
    (1) Lubrication by saliva
         (2) Peristalsis
         (3) Gravitational pull
         (4) All of the above
Sample questions for ASAT : Nurture Course

SPACE FOR ROUGH WORK / रफ का यंज के लिये जाह

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