Sample Questions

for

ALLEN's Scholarship Test and Reward Program

CLASSROOM CONTACT PROGRAMME

PRE-NURTURE & CAREER FOUNDATION : CLASS-XI
(FOR XI to XII MOVING STUDENTS)

ALLEN
CAREER INSTITUTE
KOTA (RAJASTHAN)
path to success

INSTRUCTIONS

1. This Booklet is your Question Paper. DO NOT break seal of Booklet until the invigilator instructs to do so.
2. Fill your TALLENTEX Roll No. & Answer Sheet No. in the space provided on the cover page.
3. Carefully fill your **PAPER CODE** and present **CLASS** in space provided **(Serial No. 6 & 12)** of optical response sheet.
4. Please make sure that paper you received is of your class only.
5. Please make sure that the **Paper Code** Printed on the **Test Booklet Cover Page** and **Inner Pages** are the same. In case of discrepancy, the candidate should immediately report the matter to the Invigilator for replacement of Test Booklet.
6. 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 or blue ball point pen.
7. After breaking the Question Paper seal, check there are **12 pages** in the booklet. This Question Paper contains 80 MCQs with 4 choices (Subjects: Section-A Physics: 20, Section-B Chemistry: 20, Section-C Biology: 20, Section-D Maths: 20 & Mental ability: 20). **Note: Attempt any one of Section C (Medical Stream) or D (Engineering Stream)**
8. Think wisely before darkening bubble as there is negative marking for wrong answer. Answer once marked by pen cannot be cancelled.
9. Marking Scheme:
a. If darkened bubble is RIGHT answer : 4 Marks.
b. If darkened bubble is WRONG answer: -1 Mark (Minus One Mark).
c. If no bubble is darkened in any question: No Mark.
10. If you are found involved in cheating or disturbing others, then your ORS will be cancelled.
11. Do not put any stain on ORS and hand it over backproperly to the invigilator.
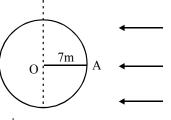12. You can take along the question paper after the test is over.

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.

1. Which of the following is derived from fossil fuel?
   (1) Geothermal energy (2) Bio-diesel   (3) Nuclear energy   (4) None

2. Thermal conductivity is highest for -
   (1) Diamond   (2) Graphite   (3) Iron   (4) Hydrogen

3. Which of the given rays best fits to a reflected ray for the incident ray given -

   (1) AB   (2) AC   (3) AD   (4) AE

4. Correct statement regarding frequency of colours in a spectrum of sunlight is -
   (1) frequency of all colours is same   (2) frequency of red light exceeds that of green
   (3) frequency of violet light is maximum   (4) frequency of violet light is minimum

5. Choose correct statements -
   (1) Image formed on retina is real.
   (2) movie being filmed in a theatre is an example of real image.
   (3) when viewed from above, we see virtual image of bottom of a lake.
   (4) all of the above

6. Choose correct match of units -
   (1) Current - coulomb   (2) Energy - watt
   (3) Pressure - atmosphere   (4) Distance - chandrashekhar's limit

7. Dimensional formula of work is -
   (1) MLT^{-2} (2) ML^2T^{-2} (3) ML^2T^{-3} (4) None

8. One body is dropped while a second body is thrown downwards with an initial velocity of 2 m/s simultaneously. The separation between them is 18 metres after a time -
   (1) 9 s   (2) 4.5 s   (3) 18 s   (4) 9.8 s

9. Check up the correct statement in the following-
   (1) A body has a constant velocity and still it can have a varying speed.
   (2) A body has a constant speed but it can have a varying velocity.
   (3) A body having constant speed cannot have any acceleration
   (4) A body in motion under a force acting upon it must always have work done upon it.

10. Which of the following can be zero, when a particle is in acceleration for some time?
    (1) Distance   (2) Displacement   (3) Average speed   (4) None

11. A particle has initial velocity $3\hat{i}+4\hat{j}$ and an acceleration of $0.4\hat{i}+0.3\hat{j}$. Its speed after 10 s is -
    (1) 10 unit   (2) $7\sqrt{2}$ unit   (3) 7 unit   (4) 8.5 unit

12. Passengers standing in a bus are thrown outwards when the bus takes a sudden turn. This happens because of -
    (1) Outward pull on them   (2) Inertia of passengers
    (3) Change in momentum of passengers   (4) Change in acceleration of passengers

13. A boy of mass 40 kg is hanging from the horizontal branch of a tree. The tension in his arms is minimum when the angle between the arms is -
    (1) 0°   (2) 90°   (3) 120°   (4) 180°

14. Maximum resistance that can be obtained by using resistances 1 Ω, 2 Ω, 3 Ω, ..., 10 Ω is-
(1) 5 Ω (2) 25 Ω (3) 45 Ω (4) 55 Ω

15. Frequency of alternating current used in India is -
(1) 50 Hz (2) 60 Hz (3) 50 J (4) 60 J

Comprehension (Q. 16 to Q. 18) : Figure shows a rod of length 7 m that can rotate to form a horizontal circle and arrows show light falling on it from right. Speed of end point A is always 10 m/s. Dotted line represent a white screen on which shadow of rod can be formed.
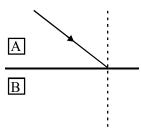

16. Time taken to complete one revolution is -
(1) 3.6 s (2) 4.4 s (3) 5.5 s (4) 6.6 s

17. Angular velocity of rod is -
(1) $\dfrac{5\pi}{11}$ rad/s (2) $\dfrac{10\pi}{11}$ rad/s (3) $\dfrac{9\pi}{11}$ rad/s (4) None of these

18. Length of shadow obtained after 0.55 second if it starts from A -
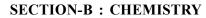(1) 7m (2) $\dfrac{7}{2}$ m (3) $\dfrac{7}{\sqrt{2}}$ m (4) $\dfrac{7\sqrt{3}}{2}$ m

Comprehension (Q. 19 & Q. 20) : A light ray is incident on the interface of two hypothetical media A and B as shown. Refractive index of A is 3.

19. If critical angle between two media is 30°, refractive index of medium B is -
(1) $\dfrac{9}{2}$ (2) $\dfrac{3}{4}$ (3) $\dfrac{3}{2}$ (4) $\dfrac{3}{8}$

20. Speed of light in medium B is -
(1) 2×10^8 km/s (2) 2×10^5 m/s (3) 2×10^8 m/s (4) 2×10^5 km/s

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.

21. The pH range of human body is -
(1) 6.5 - 7.00 (2) 7.0 - 7.8 (3) 8 - 8.5 (4) 3 - 3.5

22. The acid found in tomato?
(1) Acetic acid (2) Citric acid (3) Tartaric acid (4) Oxalic acid

23. The formula of washing soda?
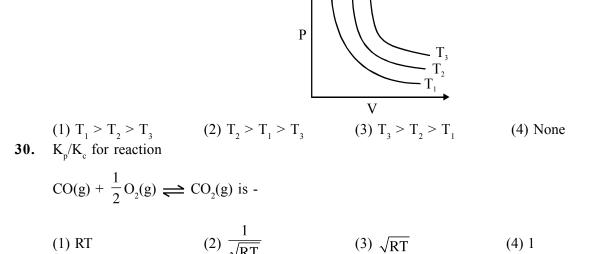(1) $NaHCO_3$ (2) $NaHCO_3 . 7H_2O$
(3) $Na_2CO_3 . 10H_2O$ (4) $NaOH$

24. Which reactivity order of metal is correct?

(1) $Mg > Al > Zn > Fe$

(2) $Zn > Mg > Al > Fe$

(3) $Fe > Mg > Al > Zn$

(4) $Al > Zn > Mg > Fe$

25. How do you extract metals from their ore which have high reactivity?

(1) Pyrometallurgy

(2) Electrolysis

(3) Hydrometallurgy

(4) By heating

26. Which of the following is a doboreiner triads.

(1) Cl, Br, I

(2) Zn, Cr, Na

(3) Ne, Ar, K

(4) B, C, Si

27. Number of molecules in 4.25 gm. Ammonia (NH_3) is approximately -

(1) 3.5×10^{23}

(2) 1.5×10^{23}

(3) 0.5×10^{23}

(4) 2.5×10^{23}

28. Angular momentum of "4d" electron.

(1) $\sqrt{6}\dfrac{h}{2\pi}$

(2) $\sqrt{2}\dfrac{h}{2\pi}$

(3) 0

(4) $2\dfrac{h}{2\pi}$

29. For Boyes law in following graph. Arrange the temperature of isotherm in increasing order -

(1) $T_1 > T_2 > T_3$

(2) $T_2 > T_1 > T_3$

(3) $T_3 > T_2 > T_1$

(4) None

30. K_p/K_c for reaction

$CO(g) + \dfrac{1}{2}O_2(g) \rightleftharpoons CO_2(g)$ is -

(1) RT

(2) $\dfrac{1}{\sqrt{RT}}$

(3) $\sqrt{RT}$

(4) 1

31. Rearrange the following (I to IV) in the order of increasing masses and choose the correct answer from (1), (2), (3) and (4) [Atomic masses : N = 14, O = 16, Cu = 63]

I.   1 molecule of oxygen

II.   1 atom of nitrogen

III. 1×10^{-10} g-molecule of oxygen

IV. 1×10^{-10} g-atom of copper

(1) II < I < III < IV

(2) IV < III < II < I

(3) II < III < I < IV

(4) III < IV < I < II

32. A compound contains 50% by mass X (atomic mass 10) and 50% by mass Y (at. mass 20) formula of compound is :-

(1) XY

(2) X_2Y

(3) X_4Y_3

(4) X_3Y

33. Which of the following sets of quantum numbers is not possible?

(1) $n = 3$; $l = +2$; $m_l = 0$; $m_s = +\dfrac{1}{2}$

(2) $n = 3$; $l = 0$; $m_l = 0$; $m_s = -\dfrac{1}{2}$

(3) $n = 3$; $l = 0$; $m_l = -1$; $m_s = +\dfrac{1}{2}$

(4) $n = 3$; $l = 1$; $m_l = 0$; $m_s = -\dfrac{1}{2}$

34. The ratio of the radii of first orbits of H, He^+ and Li^{2+} is -

(1) 1 : 2 : 3   (2) 6 : 3 : 2   (3) 1 : 4 : 9   (4) 9 : 4 : 1

35. Which of the following property is not a state function?

(1) Heat   (2) Internal energy

(3) Enthalpy   (4) Entropy of surrounding

Comprehension (Q. 36 to Q. 38) : In order to explain shape and geometry of molecules. The valence bond theory was supplemented by the concept of hybridisation. This concept is hypothetical and has been introduced by pauling and slater. According to this concept number of atomic orbitals of an atom which differ in energy slightly may mix with each other and form new orbital called hybrid orbital. The process of mixing called hybridisation. The hybrid orbital form after mixing have same energy.

36. Hybridisation of carbon atoms in C–C single bond of $H - C \equiv C - CH = CH_2$ -

(1) $sp^3 - sp^3$ (2) $sp^2 - sp^3$ (3) $sp - sp^2$ (4) $sp^3 - sp$

37. In XeF_2, XeF_4 and XeF_6 number of lone pairs on Xe is respectively -

(1) 2, 3, 1   (2) 1, 2, 3   (3) 4, 1, 2   (4) 3, 2, 1

38. Which of the following is correct set?

(1) H_2O, sp^3, bent   (2) H_2O, sp^2, linear

(3) NH_3, sp^2, pyramidal   (4) BF_3, sp^3, trigonal planer

Comprehension (Q. 39 & Q. 40) : If 4.9 % by (w/v) solution of sulphuric acid is prepared. If density of sulphuric acid (H_2SO_4) is 1.25 g/ml, then-

39. Molarity of solution is -

(1) 10 M   (2) 0.5 M   (3) 4.9 M   (4) 1 M

40. The molality of H_2SO_4 solution is approximately -

(1) 0.750 m   (2) 0.42 m   (3) 0.042 m   (4) 4.2 m

Attempt any one of section C or D
SECTION-C : BIOLOGY
FOR ADMISSION IN MEDICAL STREAM

This section contains **20 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

41. Sequence of taxonomic categories is -

(1) Class - Phylum - Tribe - Order - Family - Genus - Species

(2) Division - Class - Family - Tribe - Order - Genus - Species

(3) Division - Class - Order - Family - Tribe - Genus - Species

(4) Phylum - Order - Class - Tribe - Family - Genus - Species

42. Which of the following is correct about the slime mould?

I. Its thylloid body, plasmodium, has pseudopodia for locomotion and ingulfing organic matter

II. During unfavourable conditions plasmodium differentiates and produces fruiting bodies, sporangium
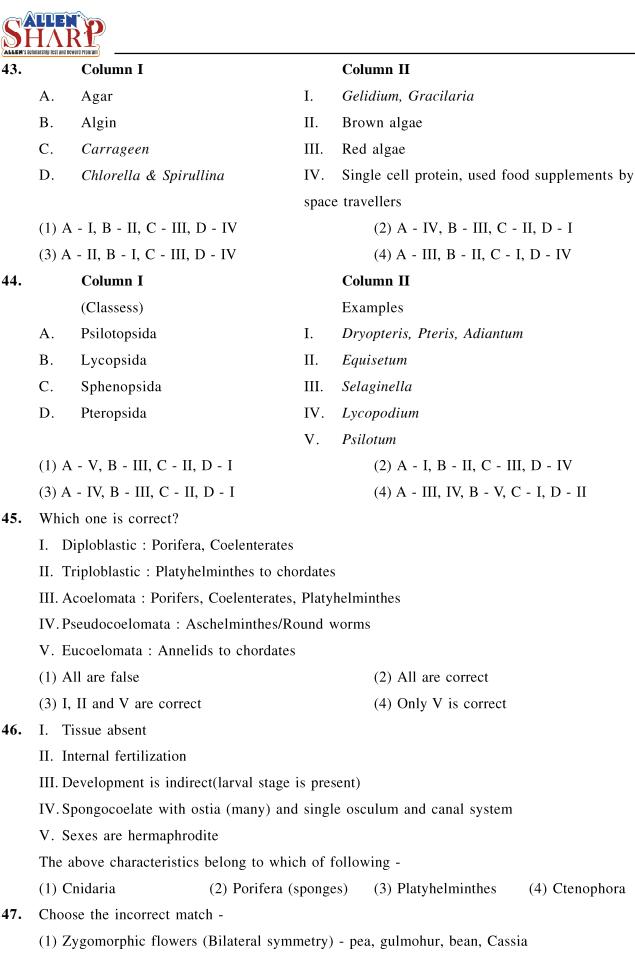
III. Spores possess no true cell wall

IV. They are dispersed by air current

V. Being extremely resistant, spores survive for many years

VI. Plasmodium can grow upto several feet

(1) I, II,III, IV, V, VI   (2) I, II, IV   (3) I, II, III, VI   (4) II, III, VI

43.

	Column I		Column II
A.	Agar	I.	*Gelidium, Gracilaria*
B.	Algin	II.	Brown algae
C.	*Carrageen*	III.	Red algae
D.	*Chlorella & Spirullina*	IV.	Single cell protein, used food supplements by space travellers

(1) A - I, B - II, C - III, D - IV   (2) A - IV, B - III, C - II, D - I

(3) A - II, B - I, C - III, D - IV   (4) A - III, B - II, C - I, D - IV

44.

	Column I (Classess)		Column II Examples
A.	Psilotopsida	I.	*Dryopteris, Pteris, Adiantum*
B.	Lycopsida	II.	*Equisetum*
C.	Sphenopsida	III.	*Selaginella*
D.	Pteropsida	IV.	*Lycopodium*
		V.	*Psilotum*

(1) A - V, B - III, C - II, D - I   (2) A - I, B - II, C - III, D - IV

(3) A - IV, B - III, C - II, D - I   (4) A - III, IV, B - V, C - I, D - II

45. Which one is correct?

I. Diploblastic : Porifera, Coelenterates

II. Triploblastic : Platyhelminthes to chordates

III. Acoelomata : Porifers, Coelenterates, Platyhelminthes

IV. Pseudocoelomata : Aschelminthes/Round worms

V. Eucoelomata : Annelids to chordates

(1) All are false   (2) All are correct

(3) I, II and V are correct   (4) Only V is correct

46. I. Tissue absent

II. Internal fertilization

III. Development is indirect(larval stage is present)

IV. Spongocoelate with ostia (many) and single osculum and canal system

V. Sexes are hermaphrodite

The above characteristics belong to which of following -

(1) Cnidaria   (2) Porifera (sponges)   (3) Platyhelminthes   (4) Ctenophora

47. Choose the incorrect match -

(1) Zygomorphic flowers (Bilateral symmetry) - pea, gulmohur, bean, Cassia

(2) Asymmetric (irregular flower) - Canna

(3) Inferior ovary - Datura

(4) Superior ovary/Hypogynous flower - mustard, china rose and brinjal

48. Match the Column I with Column II -

Column I		Column II	
A. Gamosepalous		I.	Flower of lily
B. Polysepalous		II.	Sterile anther
C. Gamopetalous		III.	Free petals
D. Polypelatous		IV.	Free sepals
E. Epiphyllous		V.	Fused
F. Staminode		VI.	Fused sepals

	A	B	C	D	E	F
(1)	IV	V	III	I	VI	II
(2)	IV	V	III	I	II	VI
(3)	VI	IV	V	III	I	II
(4)	VI	IV	V	III	II	II

49. Which of the following is not true of connective tissue?

I. Connective tissues are most abundant and widely distributed in the body of complex animals

II. They connect and support other tissues

III. They include such diverse tissues as bone, cartilage, tendons, adipose and loose connective tissues

IV. They form the internal and external lining of many organs.

V. In all connective tissues except blood, the cells secrete fibres of structural proteins called collagen or elastin

(1) Only IV   (2) Only V

(3) Only I and II   (4) Only III and V

50. A. Varied number of cisternae are present in a GB

B. Golgi cisternae are concentrically arranged near the nucleus

C. Golgi body is a wide spread structure.

D. The Cis and trans face are inter connected

E. Both the faces of Golgi body are similar

Of the above statement, which are incorrect ?

(1) Only C and E   (2) Only D   (3) Only D and E   (4) Only C

51. Go through the following statements and select the incorrect option w.r.t. biomolecules–

(1) Lipids are not strictly macromolecules

(2) Dietary proteins are the source of essential aminoacids.

(3) GLUT-4 is a lipid molecule that enables glucose transport into the cells.

(4) Adenylic acid and uridylic acid are nucleotides found in RNA.

52. How many of the following structures are found only in male cockroach and not in female cockroach :

Spermatheca, Anal cercus, Phallic gland, Caudal style

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

53. Select the odd one out–

(1) Sea urchin   (2) Sea lilly   (3) Sea cucumber   (4) Sea hare

54. The involuntary actions like salivation and vomiting are controlled by which part of brain–

(1)Cerbebrum   (2) Medulla   (3) Hypothalamus   (4) Pons
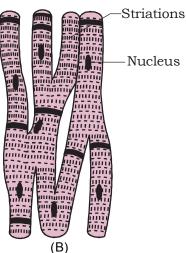
55. Go through the following figures of animal tissues and find the suitable option with correct feature for the labelled structure A & B–
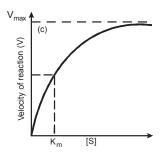

(A)   (B)

(1) A–Solid and Pliable ground substance, B–Unbranched fibres with communication junctions

(2) A–Hard and nonpliable ground substance, B–Involuntary and mononucleated

(3) A–Tight junctions are abundant, B–Voluntary and mononucleated

(4) A–Solid and pliable ground substance, B–Branched fibres with intercalated discs

56. The following given figure represents the effect of substrate cocentration on enzyme activity.

In which of the following conditions, the curve shifts to right and Km value rises–

(1) Presence of noncompetitive inhibitor

(2) Presence of competitive inhibitor

(3) Increase in concentration of enzyme

(4) Increase in concentration of substrate without the aid of inhibitor

57. Go through the following features–

A. Alimentary canal is complete with a well developed muscular pharynx.

B. Fertilisation is internal.

C. With true coelom (coelomate)

Which of the above statements are correct w.r.t. *Ancylostoma* (Hook worm)–

(1)A, B, C   (2)A, B   (3)B, C   (4)A, C

58. Consider following features-

(A) Downhill Transport   (B) Carrier Proteins

(C) Transport Saturation   (D) Competitive Inhibition

(E) Use of ATP

How many of the above features are common to facilitated diffusion and active transport ?

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

59. Meristem associated to regenerate plant parts removed by grazing herbivores is

(1) Fascicular Cambium

(2) Cork Cambium

(3) Interfascicular Cambium

(4) Intercalary Meristem

60. Consider the following plants

Mustard, Pea, Tomato, Lemon, Primrose, Sunflower.

How many of the above Plant/Plants possess axile placentation ?

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

SECTION-D : MATHEMATICS
FOR ADMISSION IN ENGINEERING STREAM

This section contains **20 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

61. $\dfrac{\sin^6\theta + \cos^6\theta - 1}{\sin^4\theta + \cos^4\theta - 1}$, $\theta \neq \dfrac{n\pi}{2}, n \in I$ is equal to-

(1) $\dfrac{3}{2}$ (2) $\dfrac{2}{5}$ (3) $\dfrac{1}{2}$ (4) 2

62. Point A(3,4), B(1,2) and C(5,2) are the vertices of ΔABC. If side AB is rotated 30º anticlockwise about point B such that point A becomes A', then value of $\dfrac{\text{area}(\Delta ABC)}{\text{area}(\Delta A'BC)}$ is-

(1) $\sqrt{3}+1$ (2) $\dfrac{\sqrt{2}}{\sqrt{3}-1}$ (3) $\sqrt{3}-1$ (4) $\dfrac{\sqrt{2}}{\sqrt{3}+1}$

63. If $\left(x^2 + \dfrac{1}{x}\right)^n$ has exactly one middle term which is equal to $\alpha.x^3$ then the value of $(\alpha + n)$ is- $(n \in N)$

(1) 18   (2) 21   (3) 24   (4) 26

64. If 4 distinct positive numbers $a\log_c 2, b^3, \dfrac{c}{b^3}, \dfrac{64}{\log_c 2^a}$ are in H.P., then the minimum possible integral value of c,is-
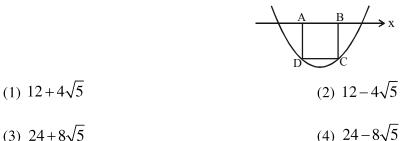
(1) 2   (2) 4   (3) 5   (4) 6

65. If points B and C are on circles $S_1 : (x-3)^2 + y^2 = 9$ and $S_2 : (x-9)^2 + y^2 = 9$ respectively, such that they are at maximum distance from point A(6,3), then area of ΔABC will be-

(1) $\dfrac{9}{2}\left(3 + 2\sqrt{2}\right)$ (2) $\dfrac{3}{2}\left(9 + 2\sqrt{2}\right)$

(3) $9\left(3 + 2\sqrt{2}\right)$ (4) $2\left(3 + 2\sqrt{2}\right)$

66. In a ΔABC the value of $\sum\left(\dfrac{\sec A.\sec B}{\tan A\tan B\sec C}\right)$, is

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

67. If equation $3\sin x + P\cos x = k$, $x \in R$ has atleast one solution for exactly 9 integral values of k, then number of integral values of P is-

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

68. There are five boys A,B,C,D,E. The order of their height is A < B < C < D < E. Number of ways in which they have to be arranged in 4 seats in increasing order of their height such that C & E are never adjacent, is-

(1) 10   (2) 6   (3) 4   (4) 8

69. A mason constructs a wall of dimensions (270 cm × 300 cm × 350 cm) with bricks, each of size (22.5 cm × 11.25 cm × 8.75 cm) and it is assumed that $\dfrac{1}{8}$ space is covered by the mortar. Number of bricks used to construct the wall is

(1) 11000   (2) 11100   (3) 11200   (4) 11300

70. If graph of the expression $y = x^2 - 8x + 12$ is shown in the figure then area of the square ABCD inscribed between parabola & x-axis is given by
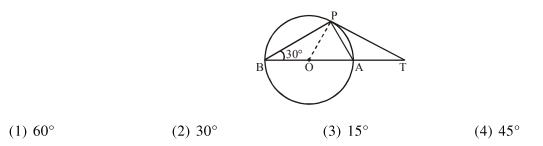

(1) $12 + 4\sqrt{5}$ (2) $12 - 4\sqrt{5}$

(3) $24 + 8\sqrt{5}$ (4) $24 - 8\sqrt{5}$

71. If the second and third term of a G.P. be $-a - 2$ & $3a$ respectively and the harmonic mean of these terms is equal to fourth term of the G.P., then the common ratio of G.P. can be-

(1) $\dfrac{2}{5}$ (2) -3 (3) -2 (4) $\dfrac{1}{2}$

72. If α, β, γ are roots of $x^3 - 2x^2 + 7x - 1 = 0$, then the value of $(\alpha + \beta - \gamma)(\beta + \gamma - \alpha)(\gamma + \alpha - \beta)$ is-

(1) 6   (2) 8   (3) 13   (4) 40

73. Which term of the AP 25, 20, 15, ... is the first negative term ?

(1) 9th   (2) 8th   (3) 7th   (4) 10th

74. In the given figure, O is the centre of a circle, BOA is its diameter and the tangent at the point P meets BA extended at T. If $\angle PBO = 30°$, then $\angle PTA = ?$

(1) 60°   (2) 30°   (3) 15°   (4) 45°

75. The number of numbers lying between 0 and 300 that are divisible by 6 but not by 18 is-

(1) 49   (2) 43   (3) 33   (4) 29

Comprehension (Q. 76 & Q. 77) : Consider the geometric progression $S = 1 + 2\sin^2\theta + 4\sin^4\theta + 8\sin^6\theta + ...$up to infinite terms,

where S is a finite number and $\theta \neq \dfrac{n\pi}{2}$ where $n \in I$.

On the basis of above information, answer the following questions :

76. Minimum integral value of S is equal to -

(1) 1   (2) 2   (3) 4   (4) 24

77. Values of θ always lies in the following interval -

(1) $\left(-\dfrac{\pi}{6}, \dfrac{\pi}{6}\right)$ (2) $\left(0, \dfrac{\pi}{3}\right)$ (3) $\left(-\dfrac{\pi}{3}, 0\right)$ (4) $\left(-\dfrac{\pi}{4}, \dfrac{\pi}{4}\right) - \{0\}$

Comprehension (Q. 78 to Q. 80) : If h is the height, ℓ the slant height and r_1, r_2 radii of the circular bases of the frustum of a cone then slant height of the frustum $= \sqrt{(r_1 - r_2)^2 + h^2}$. Height of the cone which the frustum is a part $= \dfrac{hr_1}{r_1 - r_2}$.

78. Find the height of cone of which the bucket is a part if h = 8 cm r_1 = 9 cm and r_2 = 3 cm.

(1) 12 cm   (2) 9 cm   (3) 11 cm   (4) 8 cm

79. Find the volume of water which can be filled in the bucket.

(1) 32π cm³   (2) 312π cm³   (3) 108π cm³   (4) 324π cm³

80. Find the area of copper sheet required to make the bucket.

(1) 109 cm²   (2) 129 cm²   (3) 129π cm²   (4) 105 cm²

SECTION-E : 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.
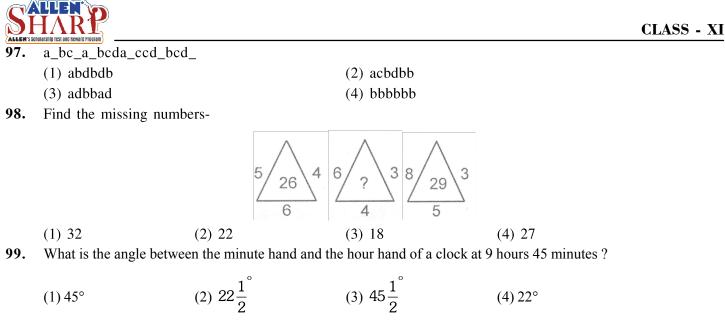
81. Find the missing number 1,1,4,8,9,?,16,64

(1) 24   (2) 27   (3) 11   (4) 17

82. Find the number in the position of "?"

(1) 41   (2) 45   (3) 50   (4) 52

83. Find the next term in the sequence :

11, 22, 37, 56, ...

(1) 90   (2) 80   (3) 79   (4) 92

84. Identify which among the pieces given below will not be required to complete the triangularpattern   shown below.

(1) q   (2) r   (3) s   (4) t

85. What will be the water image of CHICK?

(1) CHICK   (2) KCIHC   (3) CHICK   (4) CHICK

86. deb, ijg, nol, (?) , xyv

(1) rsp   (2) stp   (3) rsq   (4) stq

87. b__a__bab__ab__a

(1) baba   (2) babb   (3) abab   (4) abba

88. A and B are brothers. C and D are sisters. A's son is D's brother. How is B related to C?

(1) Brother   (2) Father   (3) Uncle   (4) Son

89. In a magical piggy bank, number of coins get doubled everyday. If piggy bank gets full after 60 days, after how many days it gets half filled ?

(1) 59 days   (2) 30 days   (3) 50 days   (4) 55 days

90.

Find 'x'

(1) 2   (2) 0   (3) 4   (4) 5

91. If your birthday 30th june,2003 falls on monday, on what day of the week does your birthday fall in the year 2005?

(1) Sunday   (2) Monday   (3) Thursday   (4) Wednesday

92. Vipul goes Northward 10 m. He turns left and walks 30 m, then the again turns left and walks 50 m. What is the total distance travelled by Vipul?

(1) 90 m   (2) 60 m   (3) 40 m   (4) 30 m

93. If 27 * 3 = 243

    5 * 4 = 80

then what is the value of 3 * 7?

(1) 84   (2) 147   (3) 63   (4) 23

94. In a coded language SHIFT is written as UFKDV, then COVET may be written in coded language is -
(1) EMXCV   (2) FNYDU   (3) EXCUV   (4) EQUDS

95. In a coded language if HOME = 2541, SHOP= 8256, WORK = 9573, then code for SMOKE can be-
(1) 85431   (2) 84531   (3) 83451   (4) 84351

96. FLP, INS, LPV, ?
(1) GRT   (2) ORY   (3) HMV   (4) KPW

97. a_bc_a_bcda_ccd_bcd_

(1) abdbdb

(2) acbdbb

(3) adbbad

(4) bbbbbb

98. Find the missing numbers-

(1) 32

(2) 22

(3) 18

(4) 27

99. What is the angle between the minute hand and the hour hand of a clock at 9 hours 45 minutes ?

(1) $45°$

(2) $22\dfrac{1}{2}^{\circ}$

(3) $45\dfrac{1}{2}^{\circ}$

(4) $22°$

100. In a certain code, PRAMOD is written as SODJRA. How is KESHAV written in that code?

(1) NBUEDS

(2) NBVECS

(3) NBVFDS

(4) NBVEDS

ANSWER KEY

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