

PART-I

IQ (MENTAL ABILITY)

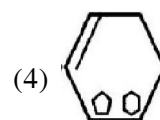
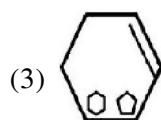
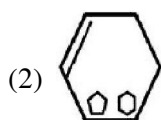
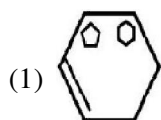
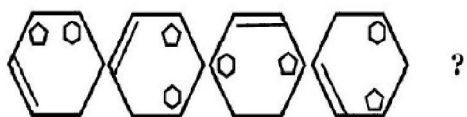
This section contains **20 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

1. Find the missing term in given series

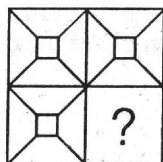
1,1,2,6,24, ?, 720

- (1) 100 (2) 104
(3) 108 (4) 120

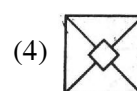
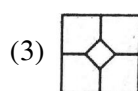
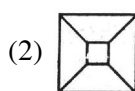
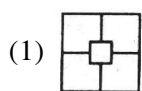
2. For the following question select the answer which most simply and logically continues the series:



3. Complete the figure (X) by choosing from the appropriate options (1), (2), (3) and (4)



(X)



4. Odd one out which figure is the odd out in the group



5. Find $x + y =$:

6	4	8
8		10
4	9	5
8.5		9.5

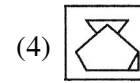
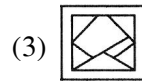
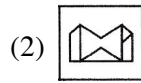
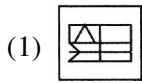
8	6	10
11		13
5.5	12	6.5
x		y

- (1) 28 (2) 24 (3) 20 (4) 32

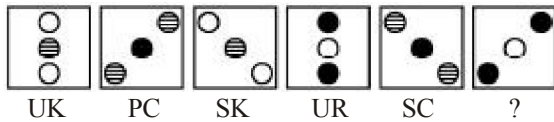
6. In the following question, figure(X) is embedded in any of the four alternative figure (1), (2), (3) and (4). Find the alternative which contains figure (X) as its part.



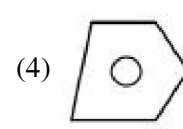
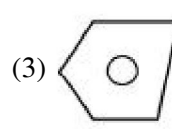
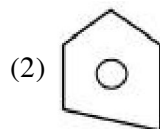
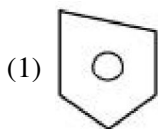
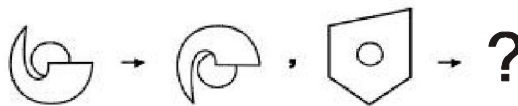
(X)



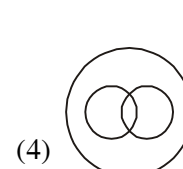
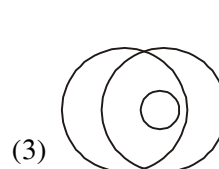
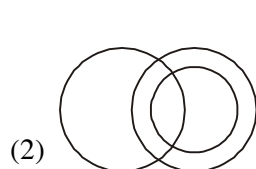
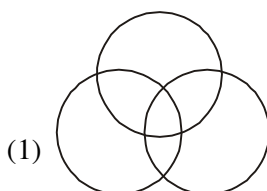
7. Mr. A, Mr. B, Mrs. C and Mrs. D are travelling in a car. Mr. A is son of Mr. B. Mrs. C is wife of Mr. A and Mrs. D is wife of Mr. B. What is Mrs. C of Mrs. D ?
- (1) Daughter-in-law (2) Mother-in-law
(3) Father-in-law (4) No relation
8. Find which code matches the shape or pattern given at the end of the question.



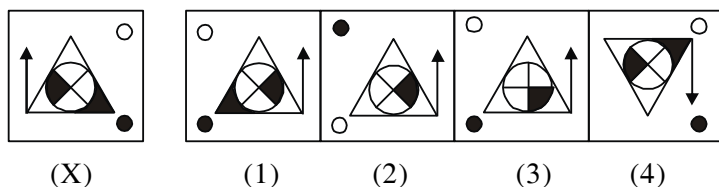
- (1) PC (2) UC (3) UR (4) PR
9. Of the four choices, you must identify the one that would best complete the second set so that it expresses the same relationship as the first set.
Elated is to despondent as enlightened is to
- (1) aware (2) ignorant (3) miserable (4) tolerant
10. Ajay left home for the bus stop 15 min earlier than usual. It takes 10 minutes to reach the stop. He reached the stop at 8 : 40 a.m. What time does he usually leave home for the bus stop ?
- (1) 8 : 30 a.m. (2) 8 : 45 a.m. (3) 8 : 55 a.m. (4) 8 : 25 a.m.
11. Which shape of figure on the right complete the second pair in a similar way as in the first pair.



12. Answer the most suitable logical diagram from the given options.
Teacher, Author, Indian



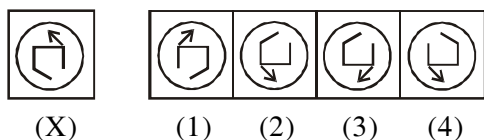
13. In the following question, you are given a figure(X) followed by four alternatives (1), (2), (3) and (4). Choose the alternative which most closely resembles the mirror-image of the given combination.



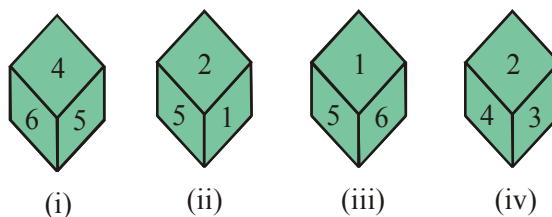
14. After walking 3 km, Madhu turned right and covered a distance of 4 km, then turned towards left and covered a distance of 1 km. At the end she was moving towards North. In which direction, did she start the journey ?

(1) East (2) West (3) North (4) South

15. Choose the correct water image of figure (X) from the given alternatives.



16. Which number lies opposite the face 3. If the four different positions of a dice are as in the figures given below.



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

Direction : (Q.17 to Q.19) : Study the following information to answer the questions.

(i) Eight friends A, B, C, D, E, F, G and H are seated in a circle facing centre.

(ii) D is between B and G and F is between A and H.

(iii) E is second to the right of A.

17. Which of the following is A's position ?

(1) Left of F (2) Right of F (3) Between E and F (4) Can't be determined

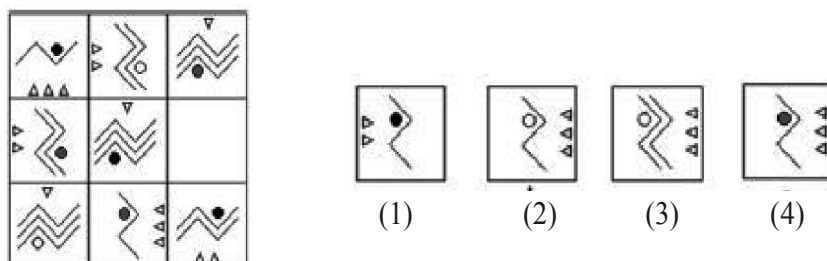
18. Which of the information statement are not required to ascertain the position of C ?

(1) (i) above (2) Either (ii) or (iii) above
(3) (iii) above (4) All are required

19. Which of the following is C's position ?

(1) Between E and F (2) Between G and E
(3) Second to the left of B (4) None of these

20. Which shape or pattern complete the larger square ?



PART-II

SECTION-A : PHYSICS

This section contains **12 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

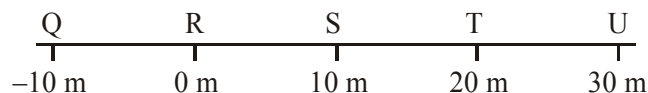
21. Which two items are both conductors of electricity?



22. How far will a person walk at a constant speed of 5 ft/s in 60 seconds in a straight line ?

(1) 200 yards (2) 12 yards (3) 100 yards (4) 300 yards

23. Jasbeer walks from Point R to Point U. Then he walks to Point Q and finally back to Point R. According to this information, which of the following represents Jasbeer displacement from Point R?



(1) 12 m (2) 9 m (3) 0 m (4) 7 m

24. While measuring length using a metre scale, the position of the eye

(1) should be vertically above the 0-mark of the scale
 (2) should be vertically above the point where the measurement is to be taken.
 (3) should be a little away from the point where the measurement is to be taken.
 (4) does not matter as long as the scale is accurate

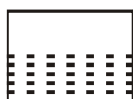
25. A girl is 20 cm away from the plane mirror. If she moves few steps closer to the mirror,

(1) Size of the image will decrease (2) Size of the image will increase
 (3) Size of image will be same (4) Cannot be determined

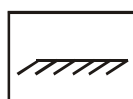
26. Look at the given figures.



A
Vacuum



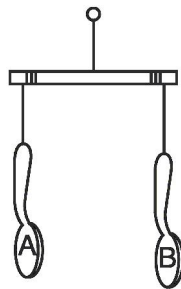
B
Water



C
Mirror

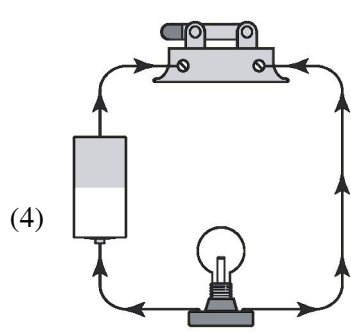
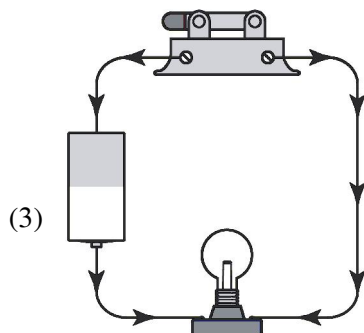
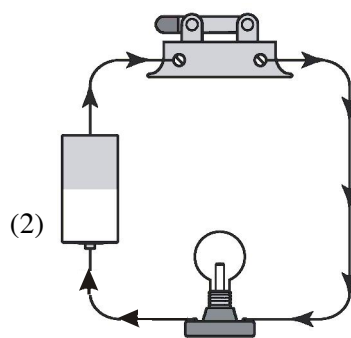
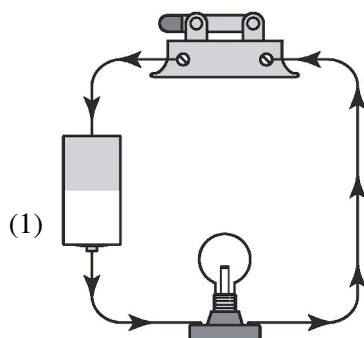
(1) Light can pass through only A and B (2) Light can pass through only B and C
 (3) Light can pass through only C and A (4) Light can pass through all A, B and C

27. Which of the following might make the spoons repel each other?

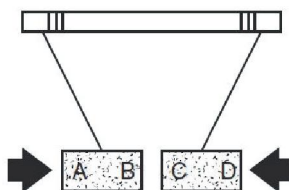


- (1) Neither A nor B is electrically charged.
- (2) Both A and B are negatively charged.
- (3) A is positively charged, and B is negatively charged.
- (4) A is negatively charged, and B is not electrically charged.

28. Which diagram best shows how electrons flow through a complete circuit?

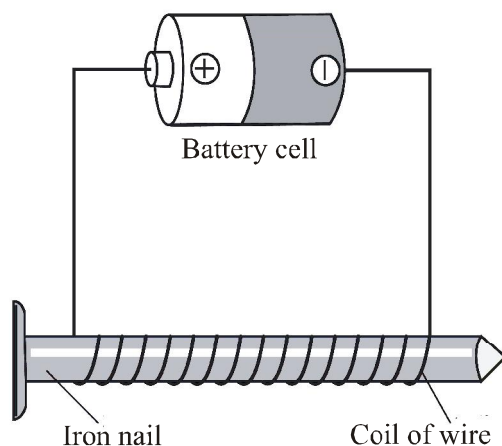


29. According to the diagram, which pair could both be north poles?



- (1) A and B
- (2) B and C
- (3) A and C
- (4) C and D

30. Look at the picture of an electromagnet.



The strength of this electromagnet can be increased

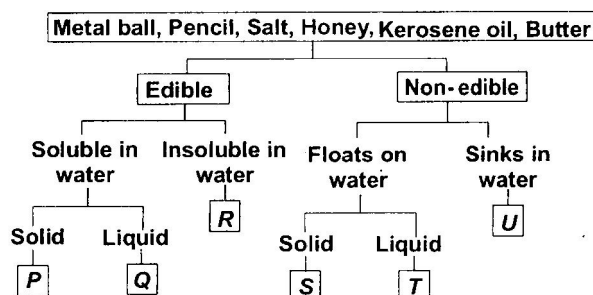
- (1) increasing the number of coils in the wire
 - (2) decreasing the number of coils in the wire
 - (3) decreasing the amount of current
 - (4) adding a light bulb and switch
31. What happens during a full lunar eclipse?
- (1) The Sun's shadow is cast on Earth.
 - (2) Earth's shadow is cast on the Moon.
 - (3) The Moon's shadow is cast on Earth.
 - (4) The Moon's shadow is cast on the Sun.
32. Which of the following objects does not have more than one type of motion ?
- (1) Screw being inserted in window
 - (2) Ball rolling on playground
 - (3) Scooter's wheel running on road
 - (4) Seesaw motion in a park

SECTION-B : CHEMISTRY

This section contains **11 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

33. On increasing the temperature of the liquid the rate of evaporation
- (1) Increases
 - (2) Decreases
 - (3) No change
 - (4) None of these
34. Which of the following is an alloy ?
- (1) Iron
 - (2) Gold
 - (3) Steel
 - (4) Copper

35. Following flowchart was prepared by Neelima for sorting materials into different groups. She handed over the observation chart to her teacher. Which out of the following four options are correct with respect to her observations?



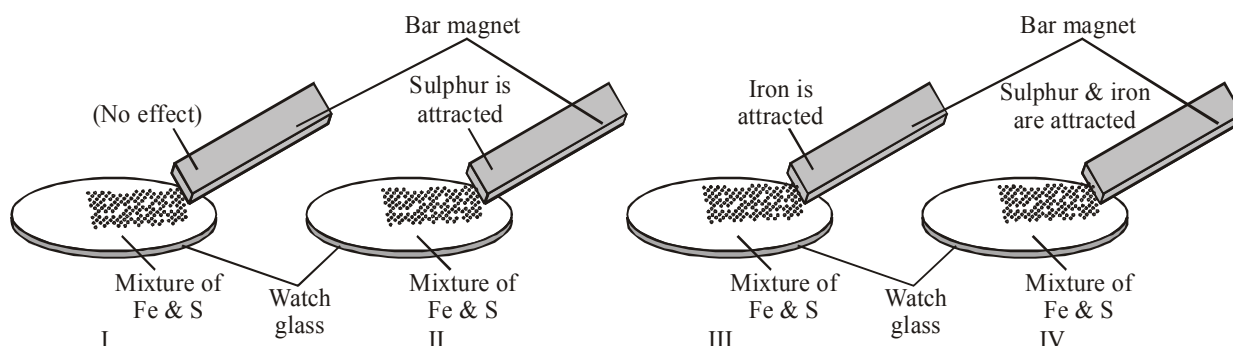
	P	Q	R	S	T	U
(1)	Butter	Honey	Salt	Metal ball	Kerosene oil	Pencil
(2)	Salt	Honey	Butter	Pencil	Kerosene oil	Metal ball
(3)	Salt	Butter	Honey	Metal ball	Pencil	Kerosene oil
(4)	Pencil	Honey	Butter	Salt	Kerosene oil	Pencil

36. Rain water which is a source of fresh water, is a kind of distilled water formed by the process of
 (1) Sublimation & deposition (2) Boiling & Melting
 (3) Evaporation & condensation (4) Diffusion
37. Kerosene floats on water because
 (1) Kerosene has higher density than water (2) Kerosene has less energy
 (3) Densities of water and kerosene are equal (4) Water has higher density than Kerosene
38. Expansion gaps are left in the railway tracks because these gaps accommodate the expansion of rails during hot weather without damaging the tracks and again contract with weather change. The process involves following changes
 (1) Physical change (2) Expansion of metals on heating
 (3) Contraction of metals on cooling (4) All of the above
39. Match the column.

Separating Method		Based On	
(A)	Winnowing	(P)	difference in size
(B)	Magnetic separation	(Q)	difference in weight
(C)	Hand picking	(R)	difference in solubility
(D)	Filtration	(S)	Attraction by magnet

- (1) A-R, B-S, C-P, D-Q (2) A-Q, B-P, C-S, D-R
 (3) A-Q, B-S, C-P, D-R (4) A-P, B-Q, C-R, D-S

40. In _____ state, matter is most difficult to be compressed.
- (1) liquid (2) gaseous
(3) solid (4) liquid & solid
41. A student was asked to separate a mixture of iron filings and sulphur powder by a magnet.



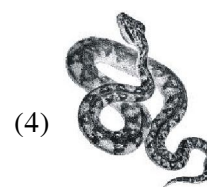
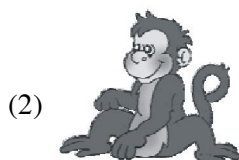
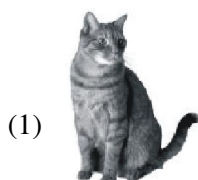
The correct observation is

- (1) I (2) II (3) III (4) IV
42. In which of the following cases the heat energy is given out?
- (i) When water boils.
(ii) When ice melts.
(iii) When water freezes to ice.
(iv) When water vapour condenses to water.
- (1) (i), (ii) and (iii) (2) (iii)
(3) (iv) (4) (iii) and (iv)
43. What are the characteristics of metals ?
- (1) Good conductor of electricity and heat; solid at room temperature; transparent, shine brightly when polished.
(2) Good conductor of electricity and heat; solid at room temperature, opaque, except in extremely thin films; do not shine at all when polished.
(3) Bad conductor of electricity and heat; solid at room temperature; opaque, except in extremely thin films
(4) Good conductor of electricity and heat; solid at room temperature; opaque, except in extremely thin films; shine brightly when polished.

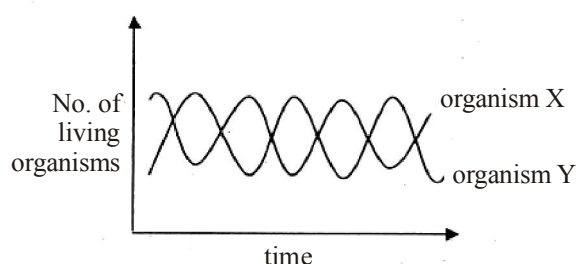
SECTION-C : BIOLOGY

This section contains **12 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

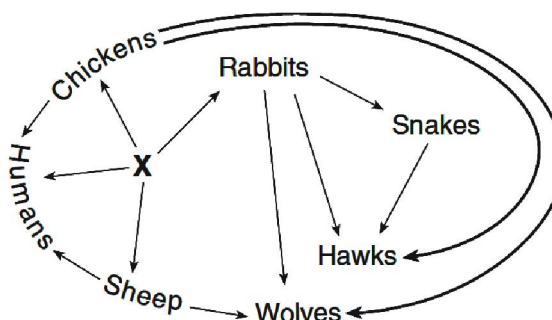
44. The process of drawing woollen fibers into straight continuous form is called
(1) Sorting (2) Scouring (3) Shearing (4) Carding
45. Which of the following is frugivore?



46. A local company dumped sewage into the wetlands. As a result, most of the fish in the wetlands died. This decrease in the number of fish will probably result in fewer
(1) mice (2) fish eating birds (3) spiders (4) insects
47. When the number of two species of aquatic organisms was monitored over time, the following graph was obtained. Which of the following statements is most likely to be true

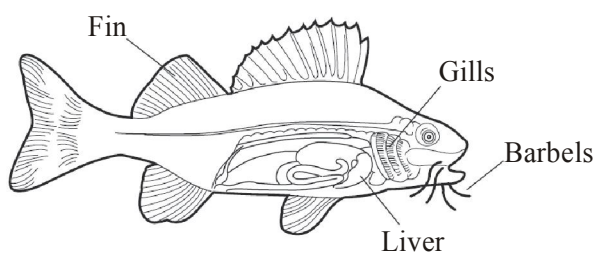


- (1) One organism is the food of the other.
(2) Each organism needs the other type for its survival.
(3) Organism X needs Y for multiplication but Y does not need X.
(4) Organism X is symbiotic with the organism Y.
48. A food web is represented in the diagram below. What does letter X mostly likely represent?



- (1) Autotrophs (2) Decomposers (3) Heterotrophs (4) Parasites

49. The length of thread that each worm spins to make a cocoon is
- (1) upto 300 meters (2) upto 1500 meters
(3) upto 200 meters (4) upto 500 meters
50. Which of the following fibre is used in production of linen fabric ?
- (1) Hemp (2) Coir (3) Jute (4) Flax
51. A species of seaweed lives completely underwater. It is anchored to the ocean floor. Air-filled sacs in its body hold the seaweed upright, bringing it close to the surface. These sacs help the seaweed get
- (1) oxygen (2) soil (3) sunlight (4) water.
52. Cactus plants grow in the desert where there is scarcity of water. To prevent loss of water, leaves are modified into spines. Then, which part of the cactus plant perform photosynthesis?
- (1) Spines (2) Roots (3) Flowers (4) Stem
53. Which of the following bacteria causes wool-sorter's disease ?
- (1) Rhizobium (2) Clostridium
(3) Bacillus anthracis (4) Coliform
54. Which of these fabrics will you choose to wear in hot and humid conditions?
- (1) Cotton (2) Silk (3) Nylon (4) Wool
55. Fish require oxygen to live. The oxygen it needs is dissolved in the water, and fish has specialized organs to absorb this oxygen. Which of the following organs of the fish shown below function like the lungs in humans?



- (1) Barbels (2) Gills (3) Fins (4) Liver

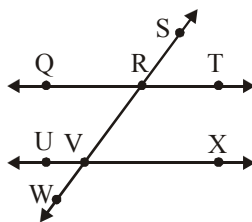
SECTION-D : MATHEMATICS

This section contains **25 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

56. Which of the following decimals is closest to zero ?

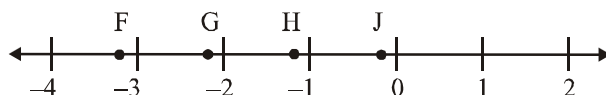
- (1) -0.09 (2) -0.1
(3) 0.11 (4) 0.9

57. Which two angles are vertically opposite angles ?



- (1) $\angle WVU$ and $\angle RVX$ (2) $\angle QRS$ and $\angle SRT$
(3) $\angle WVX$ and $\angle SRT$ (4) $\angle WVX$ and $\angle RVX$

58. Which point shows the location of $-2\frac{1}{4}$ on the number line?



- (1) point F (2) point G (3) point H (4) point J

59. Every year on New Year's Day farmer Jatin walks the property line of his rectangle shaped property.

Starting at the southwest corner he walks $\frac{1}{2}$ mile to the northwest corner. He then turns and walks 2 miles farther to the northeast corner where he stops for lunch. How much farther must he walk to complete his perimeter walk and return to his starting point?

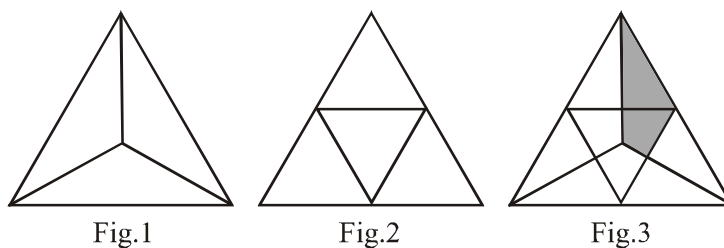
- (1) $1\frac{1}{4}$ miles (2) 5 acres (3) $2\frac{1}{2}$ miles (4) 5 miles

60. Which sign will come in the box to make the expression true?

$$(-42) - (-25) + (-22) \boxed{} (-25) - (-42) - (-27)$$

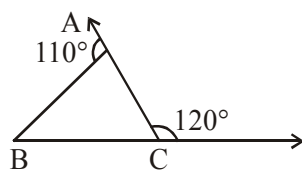
- (1) < (2) > (3) = (4) \leq

61. What is the product of place value and face value of 5 in '4567'
 (1) 5 (2) 505 (3) 500 (4) 2500
62. The number of negative integers between -7 and 7 is
 (1) 5 (2) 6 (3) 7 (4) 8
63. Fig. 1 and Fig.2 show an equilateral triangle divided into thirds and quarters respectively. They are combined in Fig. 3. Calculate the fraction of Fig. 3 that is shaded.



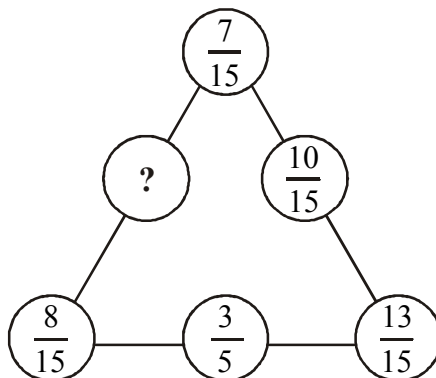
- (1) $\frac{7}{12}$ (2) $\frac{5}{12}$ (3) $\frac{5}{24}$ (4) $\frac{11}{24}$
64. Add $\frac{1}{25\frac{2}{3}}, \frac{1}{13\frac{3}{4}}, \frac{1}{x}$ and $\frac{1}{6\frac{2}{7}}$. If the sum is $\frac{145}{308}$, find the missing denominator x .
 (1) $2\frac{18}{148}$ (2) 5 (3) $19\frac{1}{4}$ (4) 1540
65. How many pieces of 19.5 metres can be cut from a cloth of 546 metres ?
 (1) 26 (2) 28
 (3) 25 (4) 29
66. A _____ of a circle is a line segment joining any two points on the circle
 (1) minor segment (2) chord
 (3) radius (4) none of these
67. If P is a prime number such that $(P+2)$ is also a prime number, then $P(P+2) + 1$ is always
 (1) An odd integer
 (2) A prime number
 (3) A perfect square
 (4) Not a perfect square

68. The measures of the angles of a triangle are in the ratio 4 : 5 : 9. The triangle is
 (1) An acute angled triangle
 (2) a right angled triangle
 (3) an obtuse angled triangle
 (4) none of the above
69. In the expression $24 - [2.4 - \{0.24 \times 2 - (0.024 - x)\}] = 22.0584$, the value of x is
 (1) 0.0024 (2) 0.024
 (3) 0.24 (4) 2.4
70. The temperature at 12 noon was 10°C above zero. If it decreases at the rate of 2°C per hour until midnight, at which time the temperature will be 8°C below zero? What would be the temperature at midnight?
 (1) 8 pm; -14°C (2) 7 pm; -14°C
 (3) 9 pm; -14°C (4) 9 pm; 14°C
71. Through what angle measure does the hour hand of a clock turn through, when it goes from 5 to 8?
 (1) 90° (2) 180°
 (3) 360° (4) none of these
72. Which of the following is correct?
 (1) angle subtended in major segment $>$ angle subtended in minor segment
 (2) angle subtended in major segment $<$ angle subtended in minor segment
 (3) angle subtended in major segment $=$ angle subtended in minor segment
 (4) None of these
73. In $\triangle ABC$, find $\angle B$



- (1) 50° (2) 10° (3) 230° (4) None of these
74. $\frac{1.01}{100} + \frac{1001}{1.00} \square \frac{10.1}{10} + \frac{100.1}{100.0}$
 (1) $>$ (2) $<$
 (3) $=$ (4) None of these

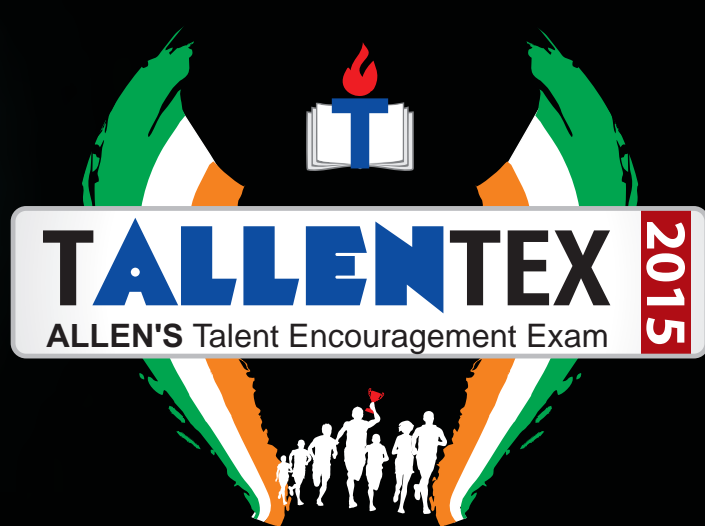
75. What should be placed in the empty space “ ? ” so that the sum of the fractions on each side of the triangle is same?



- (1) $\frac{7}{15}$ (2) $\frac{11}{15}$ (3) $\frac{22}{15}$ (4) 1
76. In a square shaped chocolate cake, whose side measures 28cm, a rectangular apple pie is located at the centre with dimensions 3 cm by 2cm. The area of the upper face of cake excluding the apple pie is _____
- (1) 784 sq cm (2) 6 sq cm
 (3) 778 sq cm (4) 708 sq cm
77. If two lines are perpendicular to the third line then those two lines are _____
- (1) parallel (2) perpendicular
 (3) can't be determined (4) None of these
78. What is the numeral for fifty two million two hundred five thousand six?
- (1) 52205006 (2) 5220506
 (3) 52020506 (4) None of these
79. The cost of 1.5 litre chocolate syrup is Rs 263.25 then the cost of 2.75 litre of syrup is
- (1) 394.875 (2) 438.75
 (3) 482.625 (4) None of these
80. How many four digit numbers are greater than 5001 ?
- (1) 5000 (2) 4999
 (3) 4998 (4) 4997

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK



PAPER CODE
X

REVISED ANSWER KEY : CLASS - 6th (VI)

(Held on : 16-11-2014)

Q. No.	1	2	3	4	5	6	7	8	9	10
Ans.	4	4	2	4	2	2	1	4	2	2
Q. No.	11	12	13	14	15	16	17	18	19	20
Ans.	2	1	1	3	3	1	2	4	3 & 4	2
Q. No.	21	22	23	24	25	26	27	28	29	30
Ans.	2	3	3	2	3	1	2	2	3	1
Q. No.	31	32	33	34	35	36	37	38	39	40
Ans.	2	4	1	3	2	3	4	4	3	3
Q. No.	41	42	43	44	45	46	47	48	49	50
Ans.	3	4	4	4	2	2	1	1	2	4
Q. No.	51	52	53	54	55	56	57	58	59	60
Ans.	3	4	3	1	2	1	1	2	3	1
Q. No.	61	62	63	64	65	66	67	68	69	70
Ans.	4	2	3	2	2	2	3	2	1	3
Q. No.	71	72	73	74	75	76	77	78	79	80
Ans.	1	2	1	1	4	3	1	1	3	3

EXPLANATION FOR CHANGE IN ANSWERKEY OF Q. NO. 19

One of the possible option is (3) but as the question is specifically asking the fixed position of C it depends upon the arrangements in which none of the options given can be correct



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