Class – 8th

SAMPLE PAPER

SECTION – A (REASONING)

Direction for Question 1 & 2: B, D, F, H, K , W,

M and T are sitting around a circle facing the centre. F is third to the left of D who is second to the left of H. B is fourth to the right of H. K is the third to the right of M who is not an immediate neighbor of F. T is not an immediate neighbor of B or D.

1. Who is to the immediate right of T?

   (a)   K   (b)   F   (c)   H   (d)   Data inadequate

2. Who is second to the left of B?

   (a)   T   (b)   D   (c)   K   (d)   Data inadequate

3. A man is facing North-west. He turns 90^0 in the clockwise direction and then 135^0 in the anticlockwise direction. Which direction is he facing now?

   (a)   North   (b)   south   (c)   West   (d)   East

4. In the following question, one term is wrong. Find out the wrong term.

   225, 196, 169, 144, 121, 80

   (a)   80   (b)   121   (c)   169   (d)   196

5. Z, X, V, T, R, …?…, …?….

   (a)   O, K   (b)   N, M   (c)   P, N   (d)   M, N

6. In the following letter series, some of the letters are missing which are given in that order as one of the alternative below it. Choose the correct alternative.

   a __ bbc __ aab __ cca __ bbcc

   (a)   bacb   (b)   acba   (c)   abba   (d)   caba

7. Select from the given diagrams, the one that illustrates the relationship among the given three classes:
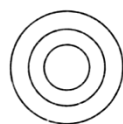
   Judge, Thief, Criminal
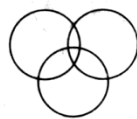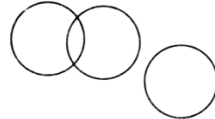
   (a)   (b)
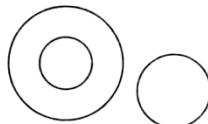
   (c)   (d)

8.   (i)   A + B means A 'is the father of B'   (ii)   A - B means A 'is the wife of B'

     (iii)   A × B means A 'is the brother of B'   (iv)   A ÷ B means A 'is the daughter of B'

     If A – C+ B, which of the following statements is true?

     (a)   A is the mother of B   (b)   B is the daughter of A

     (c)   A is the aunt of B   (d)   A is the sister if B

9.   Find the missing character in the following question.

     (a)   16   (b)   56

     (c)   55   (d)   57

5	3	16
9	5	46
7	8	?

10. Which number sequence of the following represents a correct sequence from small to big?

     (a)   Bungalow   (b)   Flat   (c)   Cottage   (d))   House   (e)   Palace

     (a)   (c), (b), (a), (d), (e)   (b)   (c), (b), (d) (a), (e)

     (c)   (e), (d), (a), (b), (c)   (d)   (b), (c), (d), (a), (e)

11. Out of the four figures (a), (b), (c), (d) given in each problem, three are similar in a certain way. However, one figure is not like the other three. Choose the figure which is different from the rest.
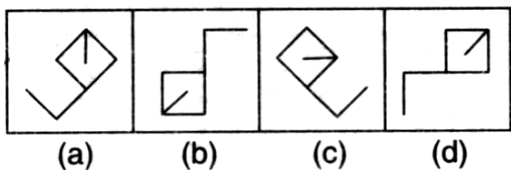

12. In a chess tournament each of six players will play every other player exactly once. How many matches will be played during the tournament?
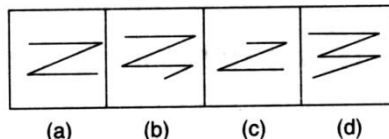
     (a)   36   (b)   30   (c)   15   (d)   12

13. Direction: The following problem contains four problem figures, marked A, B, C and D and four answer figures marked (a), (b), (c), (d) . Select a figure from amongst the answer figures which will continue the same series as given in the problem figure.
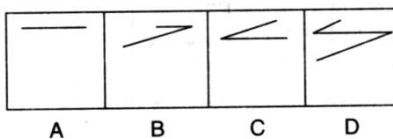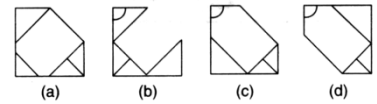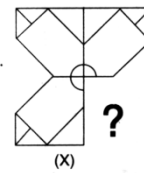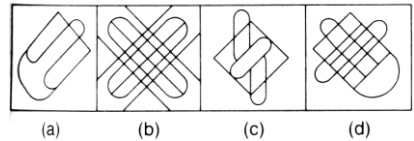
Problem Figures: Answer Figures:

14.   Direction: the following question completes the missing portion if the given pattern by selecting from the given alternatives (a), (b), (c), (d).


(X)

(a)   (b)   (c)   (d)

15.   Figure (X) is embedded in any one of the four alternative figures. Find the figure that contains (X).

(X)

(a)   (b)   (c)   (d)

16.   In the following question, choose the correct mirror image of the figure (X) from amongst the alternatives (a), (b), (c) and (d). given along with it.

(X)

(a)   (b)   (c)   (d)
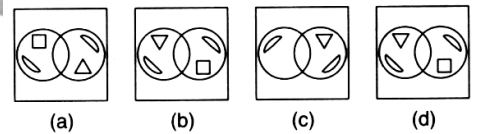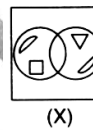
17.   In the following question, choose the correct water image of the figure (X) from amongst the four alternatives (a), (b),(c) and (d) given along with it.

(X)

(a)   (b)   (c)   (d)
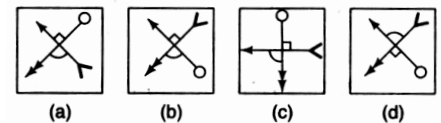
18.   In this question, there is a figure (X) with one or more dots placed in it. The figure is followed by four other answer figure marked (a), (b), (c) and (d); only one of which is such as to make possible the placement of the dot or dots satisfying the same condition as in the figure (X). Find the correct answer figure in case.

(X)

(a)   (b)   (c)   (d)
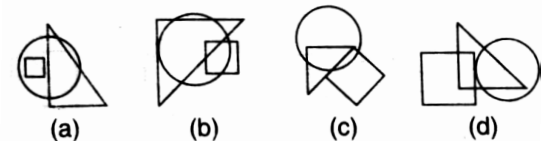
19.   Two positions of a block are given below. When 2 is at the top, which number will be at the bottom?

(a)   1   (b)   2

(c)   3   (d)   4

(i)   (ii)
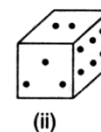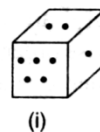
20   In a row of girls, shilpa is eighth from the left and Reena is seventeenth from the right. If they interchange their positions, Shilpa becomes fourteenth from the left. How many girls are there in the row .

(a)   25   (b)   26   (c)   30   (d)   28

SECTION – B   (MATHEMATICS)

21.   What should be added to the difference of $\dfrac{3}{20}$ and $\dfrac{28}{120}$ so as to get the result $\dfrac{13}{15}$.

(a) $\dfrac{47}{60}$ (b) $\dfrac{59}{60}$ (c) $\dfrac{86}{60}$ (d) $\dfrac{86}{120}$

22.   Find the value of the following expression $\left(\dfrac{25}{3}\right)^3 \times \left(\dfrac{9}{5}\right)^3 \times \left(\dfrac{1}{5}\right)^2$:

(a)   125   (b)   135   (c)   115   (d)   145

23.   Simplify: $\dfrac{\sqrt{1024}-\sqrt{324}}{\sqrt{441}+\sqrt{196}}$

(a) $\dfrac{2}{5}$ (b) $\sqrt{\dfrac{2}{5}}$ (c) $\sqrt{\dfrac{8}{5}}$ (d) $\dfrac{4}{5}$

24.   Find the smallest number by which 2560 must be multiplied so that the product will be a perfect cube.

(a)   10   (b)   25   (c)   20   (d)   35

25.   Find the quotient of polynomials if $y^3 - 6y^2 + 9y - 2$ is dividend by $y - 2$.

(a) $y^2 + 4y + 1$ (b) $y^2 - 4y + 1$ (c) $y^2 + 4y - 1$ (d) $y^2 - 4y - 1$

26.   Factorise the given expression : $mn(u^2 + v^2) - uv(m^2 + n^2)$

(a)   (un + vm) (um –vn)   (b)   (un + vm) (um + vn)

(c)   (un – vm) (um-vn)   (d)   (un –vm) (um +vn)

27.   Find the value of 'y' such that $\dfrac{8y+34}{36}+\dfrac{y}{3}=\dfrac{14y}{24}-\dfrac{2y+32}{72}$.

(a) $\dfrac{12}{25}$ (b) $\dfrac{25}{12}$ (c) $\dfrac{48}{25}$ (d) $\dfrac{25}{48}$

28.   James is a milk dealer and usually mixes water in the milk. He has certain quantity of milk and mixes it with 16 liters of water and sell the mixture at Rs. 0.9 per liters. If pure milk is worth Rs. 1.08 per litre, then how much milk is there in the mixture?

(a)   50 litres   (b)   60 litres   (c)   70 litres   (d)   80 litres

29.   Harry and john together can level a ground in 6 days and Harry alone takes 10 days to finish the work. Find the time required by john to finish the work if he works alone.

(a)   12 days   (b)   15 days   (c)   10 days   (d)   20 days

30.   In a college 45 % students are in Mathematics department, 30 % are in Physics department, 15 % are in Biotechnology department and rest are in Chemistry department. If there are 120 students in chemistry department, then find the total number of students in the college.

(a)   800   (b)   850   (c)   750   (d)   1200

31.   Harry purchased a shirt for Rs. 2800 and sold it to his friend for Rs. 2250. Find his loss percent on the shirt.

(a)   19.64%   (b)   18.94%   (c)   20%   (d)   21.56%

32.   Robert receive an interest of Rs. 1500 after 3 years on a certain sum of money at 8 % simple interest per annum. Find the amount invested by Robert.

(a)   Rs. 5950   (b)   Rs. 6050   (c)   Rs. 6250   (d)   Rs. 6520

33.   Find the volume of a water tank whose length is 3 meters, breadth is 2.5 meters and height is 1.5 meters.

(a)   17.84 m^3 (b)   15.46 m^3 (c)   11.25 m^3 (d)   11.96 m^3

34.   The following are the marks obtained by 50 students in Mathematics in their previous examination held in their school. Find the range of the data given below:

45	68	41	87	61	44	67	30	54	8	39	60	37	50
19	86	42	29	32	61	25	77	62	98	47	36	15	40
9	25	34	50	61	75	51	96	20	13	18	35	43	88
25	95	68	81	29	41	45	87						

(a)   90   (b)   75   (c)   80   (d)   60

35.   The value of $4 - \dfrac{5}{1 + \dfrac{1}{3 + \dfrac{1}{2 + \dfrac{1}{4}}}}$ is...................
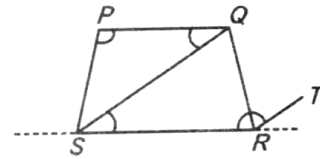
(a) $\dfrac{40}{31}$ (b) $\dfrac{4}{9}$ (c) $\dfrac{1}{8}$ (d) $\dfrac{31}{10}$

36.   Solution of the equation 6 (3x + 2) − 5 (6x − 1) = 6 (x − 3) − 5 (7x − 6) + 12x is...................

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

37. In the given figure, line RT is drawn parallel to SQ. If $\angle$ QPS = 100°, $\angle$ PQS = 40°, $\angle$ PSR = 85°

    $\angle$ QRS = 70°, then $\angle$ QRT is ………………..

    (a)   45°   (b)   65°
    (c)   85°   (d)   90°

38. Evaluate $\sqrt{41-\sqrt{21+\sqrt{19-\sqrt{9}}}}$.

    (a)   3   (b)   6   (c)   5   (d)   6.4

39. The value of $\sqrt[3]{343} \times \sqrt[3]{-64}$ is ……………..

    (a)   28   (b)   -28   (c)   18   (d)   -18

40. The C.I on Rs. 16,000 at 15% p.a. for $2\frac{1}{3}$ years is ………….

    (a)   Rs. 6418   (b)   Rs. 5000   (c)   Rs. 2221   (d)   Rs. 6218

SECTION – C   (SCIENCE)

41. The process of transferring the seedlings from the nursery to the main field by hands is called:

    (a)   Ploughing   (b)   Leveling   (c)   Manuring   (d)   Transplanting

42. The process of supplying water to crop plants in the fields is called:

    (a)   Ploughing   (b)   Leveling   (c)   Irrigation   (d)   Transplantation

43. Which one of the following material is obtained when coal is strongly heated in the absence of air?

    (a)   Coke   (b)   Petroleum   (c)   Coal tar   (d)   Both (a) and (c)

44. Which of the following fractions obtained by the refining of petroleum is used to make candle?

    (a)   Bitumen   (b)   Lubricating oil (c)   Paraffin wax   (d)   Both (b) and (c)

45. Which one of the following organisms produces their young ones by the asexual mode of reproduction?

    (a)   Frog   (b)   Birds   (c)   Human   (d)   Amoeba

46. Which one of the following organisms produces their young ones by birth?

    (a)   Frog   (b)   Birds   (c)   Buffalo   (d)   Both (b) and (c)

47. Which one of the following is the unit of frequency?

    (a)   Metre   (b)   Hertz   (c)   Second   (d)   Newton

48.   The time taken by a vibrating object to complete one vibration is called its:

        (a)   Intensity   (b)   Time-period   (c)   Vibration   (d)   Frequency

49.   Which one of the following is the hottest planet in our solar system?

        (a)   Mercury   (b)   Venus   (c)   Earth   (d)   Mars

50.   Choose the gaseous planet from the following:

        (a)   Mercury   (b)   Venus   (c)   Earth   (d)   Jupiter

51.   Why does a series of fast moving still pictures can create an illusion of movement in our eyes?

        (a)   The eye can focus on very rapidly changing pictures.

        (b)   The eye is quicker than the brain

        (c)   The eye can separate two images only when the interval of separation between them is one-sixteenth of a second.

        (d)   The optical cortex can see through the rapidly moving images.

52.   Ultrasound cannot be heard by the human ear because

        (a)   The sounds are too deep   (b)   The pitch of the sound is too high

        (c)   Such sounds are too faint   (d)   These sounds are produced by animals like rats.

53.   Which metal are correctly arranged in descending order in the reactivity series of metal?

        (a)   Lead, Zinc, sodium   (b)   Lead, sodium, zinc

        (c)   Zinc, lead, sodium   (d)   Sodium, zinc, lead

54.   Which is the most likely source for the acid rain?

        (a)   Burning of coal   (b)   Use of CFC products

        (c)   Burning of paper   (d)   Use of bio-degradable products

55.   Which micro-organism is matched correctly to its disease respectively?

        (a)   Worms cause sexually transmitted disease

        (b)   Bacteria cause tuberculosis

        (c)   Protozoa cause ringworm

        (d)   Fungi causes malaria

56.   Country X has a rule that requires anyone who cut down a tree to replant a new tree within the same area. Why do you think there is such a rule?

(a)   To prevent noise pollution

(b)   To prevent land pollution.

(c)   To conserve natural resources.

(d)   To ensure that there will be more than 40% of oxygen in the atmosphere.

57.   X appears like silk. It is strong and flexible. Non-availability of X caused riots after world war-II. The X is

(a)   Cotton   (b)   Nylon   (c)   Polyester   (d)   Rayon

58.   Which one of the following groups represents the bacterial diseases?

(a)   Cholera, tuberculosis, malaria, measles

(b)   Small pox, tuberculosis, malaria, typhoid

(c)   Cholera, tuberculosis, typhoid, measles

(d)   Cholera, anthrax, tuberculosis, thyroid

59.   The adverse effects of deforestation is/are

(i)   Reduced rainfall   (ii)   Soil erosion

(iii)   Destruction of habitat of wild life   (iv)   Climate changes

(a)   (ii) and (iii)   (b)   (ii) only   (c)   (i), (ii) and (iii)   (d)   (i), (ii), (iii), and (iv)

60.   Silent valley of Kerala is preserved because

(a)   It contains very rare species of plants and animals

(b)   The soil is rich in minerals

(c)   It is extensively used for agricultural purpose

(d)   It has pine trees.

ANSWER KEY

1.	A	2.	C	3.	C	4.	A	5 .	C
6.	B	7.	C	8.	A	9.	D	10.	B
11.	C	12.	C	13.	A	14.	C	15.	B
16.	B	17.	B	18.	B	19.	D	20.	C
21.	A	22.	B	23.	A	24.	B	25.	B
26.	C	27.	B	28.	D	29.	B	30.	D
31.	A	32.	C	33.	C	34.	A	35.	C
36.	A	37.	B	38.	B	39.	B	40.	D
41.	D	42.	C	43.	D	44.	C	45.	D
46.	C	47.	B	48.	B	49.	B	50.	D
51.	C	52.	B	53.	D	54.	A	55.	B
56.	C	57.	B	58.	D	59.	D	60.	A