

**YOUNG STAR DEFENCE ACADEMY, AMRITSAR**  
**Contact For Admission: +918101313136 Sainik School,**  
**Military School, RIMC**

**ALL INDIA SAINIK SCHOOLS ENTRANCE EXAMINATION: 2014**

**PAPER- MATHEMATICS, GK, LANGUAGE AND INTELLIGENCE**  
**TEST**

**CLASS- VI**

TIME: 2 hrs 30 minutes

Max.Marks: 300

**Instructions**

1. This question paper contains FOUR sections and you have to answer all questions in the OMR answer sheet section "A" Mathematics contains 50 questions of 3 marks each, Section "B" GK, Section "C" Language and "D" Intelligence contains 25 questions of 2 marks each respectively. Section C is language specific and is to be attempted in the chosen language.
2. There is only one correct answer for each question. Darken only one bubble for each question. If you darken more than one bubble, your answer will be treated as wrong.
3. Evaluation of OMR answer sheet will be done on a computer. Be careful and ensure no unnecessary marks on the OMR answer sheet / fold or attempt to deface the OMR answer sheet, otherwise it will not be evaluated.
4. Rough work must be done on the additional sheet only and NOT on OMR answer sheet.
5. There are total 32 pages in the question paper.

**(CLASS – VI)**

**2015 sainik school paper**

**PAPER- I: MATHEMATICS AND LANGUAGE**

**SECTION-I**

(Each questions carries two marks)

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1. Find the lowest common multiple of 2, 4 and 5.

Sol.

1. LCM of 2, 4, 5 = 20

$$\begin{array}{r|l} 2 & 2, 4, 5 \\ \hline & 1, 2, 5 \end{array}$$

$$\therefore \text{LCM} = 2 \times 2 \times 5 = 20$$

2. What least number should be added to 322516 so that the result is exactly divisible by 543?

Sol.

$$\begin{array}{r} 543 \overline{) 322516} \quad (594 \\ \underline{2715} \phantom{00} \\ 5101 \phantom{00} \\ \underline{4887} \phantom{00} \\ 2146 \phantom{00} \\ \underline{2172} \phantom{00} \\ 26 \end{array}$$

If we add 26 in 322516 then it becomes 322542 which is divisible by 543.

Hence, required number = 26

3. The weight of book is 1kg 350g. Find the weight of 25 boxes if each box contains 38 books.

Sol. **Weight of 1 book = 1350g**

**Weight of 38 books = 1350x38 = 51300g**

**Required weight = 51300x 25 = 1282500g = 1282 kg. 500g**

4. Find the prime factors of 231.

Sol.

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$$\begin{array}{r|l} 3 & 231 \\ \hline 7 & 77 \\ \hline 11 & 11 \\ \hline & 1 \end{array}$$

3, 7 and 11 are the prime factors of 231

5. Express 20 as percentage of 25.

Sol.  $X\%$  of 25 = 20

$$x \times 25/100 = 20, x = 20 \times 100/25 = 80\%$$

6. Find the value of  $12\frac{1}{5} \div 6\frac{1}{10}$ .

Sol.  $61/5 \div 61/10 = 61/5 \times 10/61 = 2$

7. Arrange the following fraction in descending order (use of  $>$  symbol)

$8/9, 8/11, 8/15, 8/13$  and  $8/17$

Sol.  $8/9 > 8/11 > 8/13 > 8/15 > 8/17$

8. Find the HCF of 16, 24, 36

Sol. H.C.F of 16, 24, 36 = 4

$$\begin{array}{r} 16 \overline{)24} \quad (1 \\ \underline{16} \\ 8 \overline{)16} \quad (2 \\ \underline{16} \\ \times \end{array} \qquad \begin{array}{r} 8 \overline{)36} \quad (4 \\ \underline{32} \\ 4 \overline{)8} \quad (2 \\ \underline{8} \\ \times \end{array}$$

$\therefore$  HCF = 4

9. A shopkeeper sells a cycle for RS 575 and incurs a loss of 75. Find his loss %.

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Sol. SP = RS 575

Loss = RS 75

CP = SP + Loss = 575 + 75 = RS 650

Loss% = Loss/CP × 100 = 75/650 × 100

$15 \times 10 / 13 = 150 / 13 = 11\frac{7}{13}\%$

10. Ram slept at 9.30 PM and got up at 6.00 A.M. How much time did he sleep?

SOL. Required time =  $2\frac{1}{2}$  hrs + 6 hrs =  $8\frac{1}{2}$  hrs = 8 hrs, 30 minutes.

**SECTION – II**

(Each questions carries three marks.)

11. Simplify  $10 - 2\frac{1}{3} \times 3 + 3\frac{3}{4} + 2\frac{1}{2}$

Sol.

$$10 - 2\frac{1}{3} \times 3 + 3\frac{3}{4} + 2\frac{1}{2}$$

$$= 10 - \frac{7}{3} \times 3 + \frac{15}{4} + \frac{5}{2}$$

$$= 10 - 7 + \frac{15}{4} \times \frac{2}{5}$$

$$= 3 + \frac{3}{2} = \frac{9}{2} = 4\frac{1}{2}$$

12. A train covers a distance of 560 Km at a speed of 70km per hour. Find the time taken by the train to cover

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This distance.

Sol. Speed = distance/ time

$$70 = 560/\text{time}$$

$$\text{Time} = 560/70 = 8 \text{ hrs.}$$

13. The age of 5 children is 13, 15, 11, 9 and 8 years respectively. Find their average age.

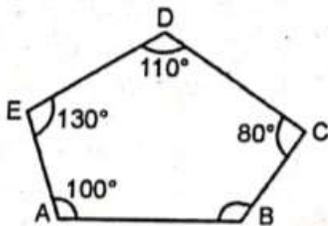
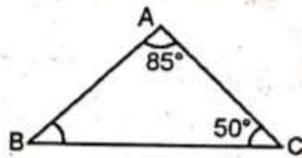
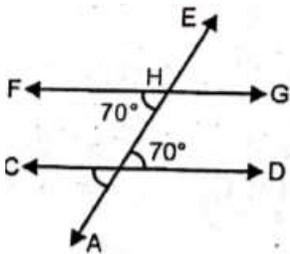
Sol. Average age =  $13+15+11+9+8/5 = 56/5 = 11.2$  years

14. A carpet is 6.60 m long and 3.75m broad. The carpet is surrounded by a lace. Find the length of the lace.

Sol. Length of the lace =  $2(l + b)$

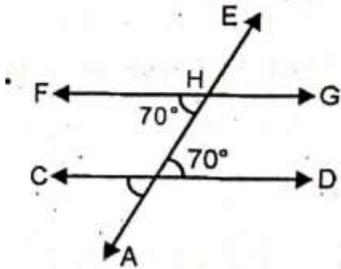
$$= 2(6.60+3.75)\text{m} = 20.70\text{m}$$

15. Find the measure of the angle ABC in each of the following figures using property of the given figure.



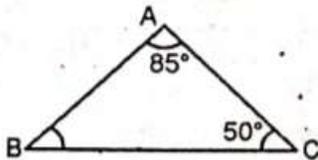
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Sol.

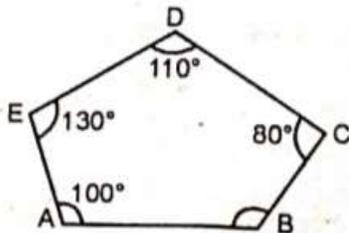


$$\angle ABC = \angle HBD = 70^\circ$$

(vertically opposite angles)



$$\begin{aligned}\angle ABC &= 180^\circ - (85^\circ + 50^\circ) \\ &[\text{Sum of angles of a triangle is } 180^\circ] \\ &= 180^\circ - 135^\circ = 45^\circ\end{aligned}$$



$$\begin{aligned}\angle ABC &= 540^\circ - (100^\circ + 80^\circ + 110^\circ + 130^\circ) \\ &[\text{Sum of angles in a pentagon is } 540^\circ] \\ &= 540^\circ - 420^\circ \\ &= 120^\circ\end{aligned}$$

16. A container has 4 liters and 650 ml of curd. In how many glasses each of 25ml capacity, can it be distributed?

Sol. Number of glasses =  $4650/25 = 186$

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17. A trader paid RS 900 as simple interest for 3 years on the sum of RS 4500 borrowed by him. Find the rate of

Interest.

Sol. Rate of interest =  $SI \times 100 / P \times t$

$$= 900 \times 100 / 4500 \times 3 = 20/3 = 6\frac{2}{3} \%$$

18. Uma can finish a work in 18 days. The same work is finished by Manju in 9 days. In how many days both of

Them will finish the work while working together.

Sol. Uma can finish a work in 18 days

$$\text{Uma's 1 day work} = 1/18$$

Manju can finish the same work in 9 days

$$\text{Manju's 1 day work} = 1/9$$

$$(\text{Uma} + \text{Manju's}) \text{ 1 day work} = 1/18 + 1/9 = 1 + 2/18 = 3/18 = 1/6$$

Hence, both can finish the work in 6 days.

19. Amit plans to tile his kitchen floor with square tiles. Each side of the tile is 10cm, his kitchen is 2.6m long

And 1.7m wide. How many tiles will Amit need?

Sol. Number of tiles =  $260 \times 170 / 10 \times 10$

$$= 26 \times 17 = 442$$

20. Find the square root of  $2\frac{113}{256}$ .

Sol.  $2\frac{113}{256} = 625/256$

$$\sqrt{625/256} = \sqrt{25 \times 25 / 16 \times 16} = 25/16$$

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Hence, square root of  $2\frac{113}{256} = 25/16$

**SECTION- III**

(Each question carries 5 marks)

21. A library has 1025 books in all. Out of this 205 books are on science, 164 books are on Philosophy.

Find the % of (I) science books, (ii) Philosophy books.

Sol. (i) % of science book =  $205/1025 \times 100 = 20\%$

(ii) % of philosophy book =  $164/1025 \times 100 = 4 \times 4 = 16\%$

22. Akbar gave  $1/3^{\text{rd}}$  of his savings to his wife  $2/5^{\text{th}}$  to his son. Akbar's total savings was RS

24000. Find the balance amount left with Akbar.

Sol. Wife's share =  $24000/3 = \text{RS } 8000$

Son's share =  $2/5 \times 24000 = \text{RS } 9600$

Required amount =  $24000 - 17600 = \text{RS } 6400$

23. A block of wood is in the form of a cube. Its edge is 4m. How many rectangular pieces of size 20

cm x 10cm x 5cm can be cut from the block if there is no wastage of wood?

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Sol. Number of pieces =  $400 \times 400 \times 400 / 20 \times 10 \times 5 = 64000000 / 1000 = 64000$

24. Explain and draw:

- (a) Intersecting lines
- (b) Concurrent lines

Sol. Intersecting lines: Two lines are intersecting if they have a common point.  
The common

Point is called the point of intersection.

Concurrent lines: Three or more lines are said to be concurrent if there is a point which lies

on all of them.

25. The total age of three persons is 60 years. The ages are in proportion 1:2:3. What are their ages?

Sol. Let ages are in x ratios.

According to the question,

$$1x + 2x + 3x = 60$$

$$6x = 60, x = 10$$

$$1x = 1 \times 10 = 10 \text{ years}$$

$$2x = 2 \times 10 = 20 \text{ years}$$

$$3x = 3 \times 10 = 30 \text{ years}$$

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26. A shopkeeper bought 15 tables at the rate of RS 50 each, 20 chairs at the rate of RS 30 each. He spent RS 40 on transportation. He sold all the tables and all the chairs for RS 1300. Find his gain or loss.

Sol. Cost of 15 tables =  $15 \times 50 = \text{RS } 750$

Cost of 20 chairs =  $20 \times 30 = \text{RS } 600$

Spent on transportation = RS 40

Total CP =  $\text{RS } 750 + 600 + 40 = \text{RS } 1390$

Total SP = RS 1300

Clearly  $\text{CP} > \text{SP}$ , Loss =  $1390 - 1300 = \text{RS } 90$

27. The angles of a triangle are in the ratio of 2:3:5. Find the angles of the triangle. Also write the type of the triangle.

Sol. Let the angles of a triangle are in the  $x$  ratios. According to the question,

$$2x + 3x + 5x = 180^\circ$$

$$10x = 180^\circ, x = 18^\circ$$

$$2x = 2 \times 18 = 36^\circ$$

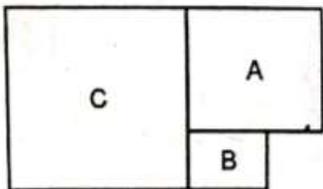
$$3x = 3 \times 18 = 54^\circ$$

$$5x = 5 \times 18 = 90^\circ$$

Since one angle is  $90^\circ$

Hence, it is right angled triangle.

28. The area of square A is  $25\text{cm}^2$ . The perimeter of square B is 12cm. What is the area and Perimeter of square c?



Area of square A =  $25\text{cm}^2$

Side of square = 5cm

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The perimeter of square B = 12 cm

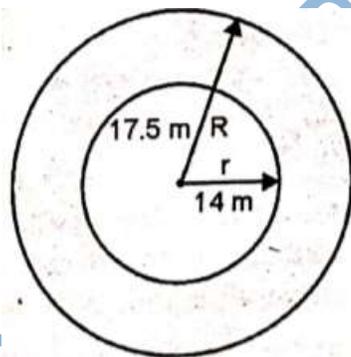
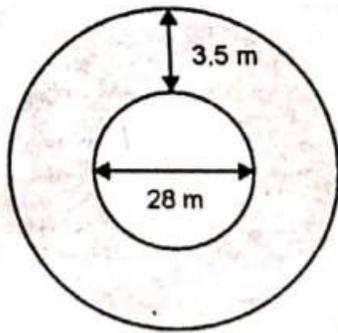
Side of square B =  $12/4\text{cm} = 3\text{cm}$

Hence, side of square C =  $5+3 = 8\text{cm}$

Area of square C =  $8 \times 8 = 64\text{cm}^2$

Perimeter of square C =  $4 \times 8 = 32\text{cm}$

29. Find the amount required to make a circular path around a garden as shown in the picture (Shaded portion) if the rate is RS 20 per sqmetre.



Sol.

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$$\begin{aligned}\text{Area of the shaded portion} &= \pi (R^2 - r^2) \\ &= \pi (R + r) (R - r) \\ &= \pi (17.5 + 14) (17.5 - 14) \\ &= \frac{22}{7} \times 31.5 \times 3.5 \\ &= 22 \times 31.5 \times .5 \\ &= \frac{22 \times 315 \times 5}{10 \times 10} \text{ m}^2\end{aligned}$$

$$\text{Cost of } 1 \text{ m}^2 = ₹ 20$$

$$\begin{aligned}\text{Cost of } \frac{22 \times 315 \times 5}{100} \text{ m}^2 &= ₹ \frac{22 \times 315 \times 5}{100} \times 20 \\ &= ₹ 22 \times 315 = ₹ 6930\end{aligned}$$

30. The average age of 5 boys is 13 years. One more boy joins them and the average age become 12

Years. Find the age of boy who joins last.

$$\text{Sol. Total age of 5 boys} = 5 \times 13 = 65 \text{ years}$$

$$\text{Total age of 6 boys} = 6 \times 12 = 72 \text{ years}$$

$$\text{Hence, age of boy who joins last} = 72 - 65 = 7 \text{ years}$$

**PART- B**

**LANGUAGE ABILITY**

1. Write 15 sentences on following topics-

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My ambition in life

Sol. My Ambition in Life

It is rightly said that the chief aim of education is to broaden the horizon of human mind. But we know that in the modern world, we also have to make a living by taking up some profession. I have decided to become a teacher as I grow up. It is rightly said that a teacher is a nation builder. By becoming a teacher, I want to kill two birds with one stone. On the one hand, I want to make a decent living. The teachers are well-paid these days. They also command a high respect in society. On the other hand, my aim is to serve the Society at large. I want to inculcate great moral values of life in the minds of young children. This I'll do while blending matter-of-fact and imaginative elements in my teaching. Fortunately, I'm a brilliant student and I hope I'll achieve my aim in life. Moreover, both my father and mother are teachers and they are my good guides and a source of great inspiration to me.

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2. Read the following passage carefully and answer the questions that follow: (15 marks)

Newspaper, writing paper, printing paper, typing paper, bolting paper, carbon paper, wall paper, stamp paper — who can deny that paper is one of the most useful article in man's daily life? Yet man did not invent paper. The real inventors are the wasps who pile away tiny wood shavings from fence-posts and tree trunks and chew them to a fine pulp from which they make the grey paper walls of their nests. Who were the first paper makers amongst men? Thousands of years ago the people of Egypt made a kind of paper from the pith of the papyrus plant, which grew in marshes near the river Nile. Papyruspaper was made in long rolls, and the books written on it were rolled up, not cut into pages. One ancient book which is to be seen in the British Museum in London is a hundred and twenty feet long.

- (a) Name three different types of paper which are used in daily life?

Sol. Writing paper, printing paper and typing paper.

- (b) Who invented paper?

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Sol. Wasps invented paper in real terms.

(c) Who were the first paper makers amongst men?

Sol. The people of Egypt were the first paper makers  
amongst men

(d) How do the wasps make paper walls of their nests?

Sol. Wasps pile away tiny wood shavings from fence-  
Posts and tree trunks and chew them to a fine pulp to  
Make the paper walls of their nests.

(e) Where can an ancient book which is one Hundred and  
twenty feet long be seen?

Sol. It can be seen in the British museum in London.

3. Make a sentence of your own for each underlined word given in the

Following passage. (Do not copy any sentence from the given paragraph.)

(10 Marks)

Education plays a very important role in the development of  
mankind. The mental and intellectual development of a man takes  
Place due to education. Without education man is like an Animal.

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(a).....

(b).....

(C).....

(d).....

(e).....

Sol. (a) Education is the key to success in life.

(b)It is more important to understand books than  
cramming them.

(c)We should work for the all- round development of  
society.

(d)Intellectual development comes from good education  
and reading.

(e)Fresh fruits and vegetables are sources of vitamins  
and minerals.

**4. Rearrange the jumbled words to form meaningful sentences.**

(10Marks)

(a) ofexercise/the oldest form/walking/one/of

(b) is excellent/an hour's walk/fit and fine/for keeping

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- (c) than/friend/enemy a foolish/a wise/is better
- (d) to/doctor's advice/should/carefully/your/you/listen
- (e) vegetables/fresh fruits/sources/and/are vitamins/of  
minerals/and

- Sol. (a) One of the oldest forms of exercise is walking.  
(b) An hour's walk is excellent for, keeping fit and fine.  
(c) A wise enemy is better than a foolish friend.  
(d) You should carefully listen to your doctor's advice.  
(e) Fresh fruits and vegetables are sources of vitamins and minerals.

5, (Give One word for the following: (5 Marks)

- (a) One who makes furniture with wood .....
- (b) One who designs buildings.....
- (r) A place where wild animals are kept .....
- (d) A place where Christians pray .....
- (e) One who writes poems .....

- Sol. (a) Carpenter (b) Architect  
(c) Zoo (c) Church  
(e) Poet

6. Choose the correct word from the brackets and fill in the blanks: (5 marks)

- (a) These boys have been.....a great deal of noise. (Make makes. Making)
- (b) Good children are.....by all. (Like, liked, liking)
- (c) The cattle.....grazing in the field. (Is, are, was)
- (d) It.....heavily last month, (rain, raining, rained)

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(e) My teacher told me to.....a letter. (Write, wrote, written)

- Sol. (a) Making            (b) liked  
      (c) are                (d) rained  
      (e) write

7. Use each of the word in separate sentences or your own to show the difference in the meaning of the words of the pairs given below: (10 Marks)

- (a) male, mail        (b) pray, prey  
(c) break, brake    (d) pour, pore  
(e) buy, by

Sol. (a) It does not make any difference whether the teacher is male or female. Mail this letter positively today.

(b) Pray to god for peace of mind. He was an easy prey for the cheats.

(c) Do not break the glass. Apply breaks to stop the bicycle.

(d) Pour some water in the bottle. There are many pores in the filter.

(e) You must buy a book today. He walks by the help of a stick.

8. Write the meaning of the following idioms and make meaningful sentences. (10 Marks)

- (A) hand to hand        (b) To and fro  
(C) Safe and sound      (d) Off and on  
(e) By and by

Sol. (a) He gave me my book, hand to hand.

(b) The swing moved to and fro.

(c) We reached their safe and sound.

(d) I play football off and on.

(e) By and by the tortoise reached its destination.

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9. You are Mohan, a resident of Janakpuri, Delhi. Write a letter to your friend requesting him to spend winter vacation with you. (10 Marks)

Sol.

Janakpuri, Delhi

Date .....

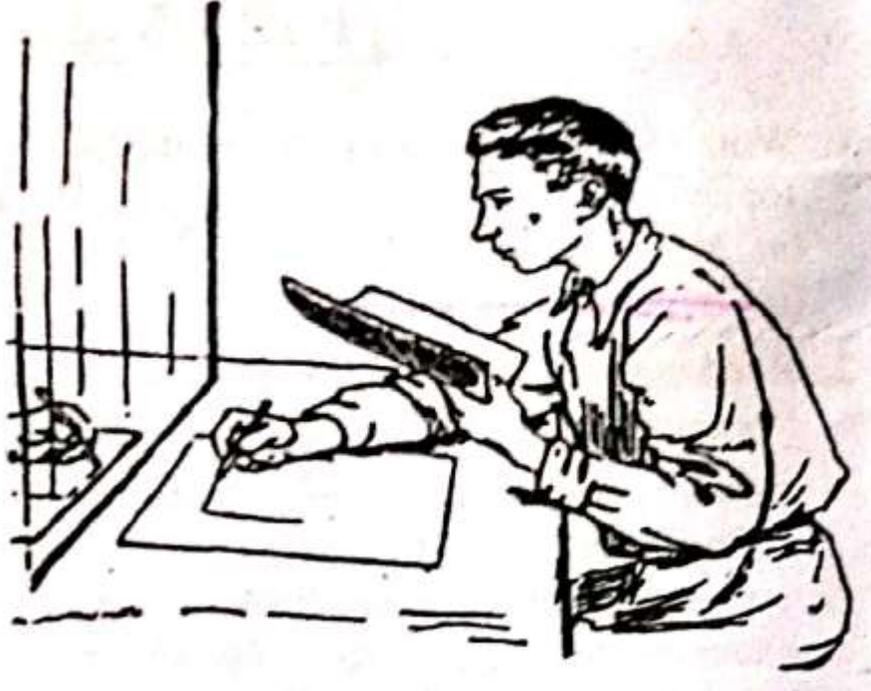
Dear Rahul,

It was a moment of joy to receive your letter and learn that you are planning to come to Delhi and stay with us during the winter vacation. You are most welcome and in fact I shall be waiting for you impatiently. Definitely it will be a nice time for you and me to go around the city and see the beautiful places and historical monuments. Delhi is a place worth visiting. You will enjoy seeing the Red Fort, then the Mughal dynasty's remains. The beautiful Lotus temple, Kalkaji Mandir, the Mughal Gardens and Kalindi Kunj are other attractions which you would love to see. The Qutab Minar, Ashoka Pillar, Purana Quila and the Jama Masjid are typical examples of architecture and stone work. You will definitely enjoy boating near the zoo and the exciting ride on the metro rail. The Rastrapati Bhavan, Supreme Court, Parliament House will really fill you with pride. You can pay homage to the Samadhis of Mahatma Gandhi at Rajghat.. Indira Gandhi at Shaktisthal and various other leaders. For shopping, I shall take you to Chandni Chowk, Connaught Place, Sarojini Nagar and Palika bazaar. Of course, I shall not miss the opportunity to go to malls and movies with you at the various PVRs that have started mushrooming up in the city. I shall start making all the arrangements and preparation right from today. waiting impatiently for your arrival.

Your loving friend,  
Mohan

10. Look at the picture and write a story (at least 10 sentences) (10 marks)

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Sol. Mohinder singh from his childhood remained absorbed in thoughts. He *was* always pondering over some or the other problem. In school/ college days, he was always busy with his studies and was on the look out to show his talent and caliber. Here he got a chance. During emergency, he got selected for commission and opted for intelligence corps.

while serving in operational/forward area, he found some torn-out pieces of paper near the bank of a canal, adjacent to enemy borders. He collected and joined these papers, which were thrown away by the enemy (*in* hurry). These papers contained enemy's plan for attack. Mohinder after careful study of these papers took them to his commander: (who mobilised his trap). Enemy man of attack proved futile, as the Armed troops on our side were fully prepared. Hence our Country won the day;

## PAPER-II: INTELLIGENCE TEST

**Directions (Qs. 1 to 5):** *Spot-out odd / extra / wrong number.*

1. 256, 324, 289, 225, 144, 123.

(a) 324      (b) 225

(c) 144      (c) 123

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Sol. All other numbers can be expressed as a square of certain number. *i.e...*  $256 = (16)^2$

2. 64, 36, 49, 25, 16, 13, 9.

- (a) 49      (b) 16  
(c) 13      (d) 25

Sol. (c) It is the only prime number.

3. 35, 28, 42, 49, 14, 53, 63.

- (a) 28      (b) 49  
(c) 53      (d) 63

Sol. (c) All other numbers are multiple of 7.

4. 17, 23, 59, 31, 14, 13, 17.

- (a) 14      (b) 23  
(c) 59      (d) 31

Sol. (a) All other number are prime.

5. 16, 18, 20, 12, 4, 8.

- (a) 16      (b) 18  
(c) 20      (d) 8

Sol. (b) All other number are multiple of 4.

**Directions (Qs. 6 to 10):** *In the following questions you have to find which one of the give, I five choices will come text in the series:*

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6. 31 7 25 13 19 19 13

- (a) 14      (b) 20  
(c) 25      (d) 30

Sol. (c) In this alternate series the numbers in the first set starting with 31 have a difference of 6 in decreasing order. In the second set starting with 7 there is a difference of 6 in increasing order. So  $19+6 = 25$ .

7...3 125 7 25 11 5 15

- (a) 19      (1) 16  
(c) 3      (c) 1

Sol. (d): In this alternate series the first set starts with number 3 and increases each time with a difference of 4. In the second set beginning with number 125 the numbers are divided by 5 and so  $5 \div 5 = 1$ .

8. 4  $5\frac{1}{2}$  7  $8\frac{1}{2}$  10  $11\frac{1}{2}$

- (a) 12      (b)  $12\frac{1}{2}$   
(c) 13      (d)  $13\frac{1}{2}$

Sol. (c) The number in this series increase by  $1\frac{1}{2}$ , i.e.  $11\frac{1}{2} + 1\frac{1}{2} = 13$ .

9...7 53 21 48 63 43 189

- (a) 567      (b) 38  
(c) 48      (d) 42

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Sol. (b): In this alternate series the numbers in the first set 7. 21. 63 are multiplied by 3 and the second set 53, 48 three is a difference of 5 in decreasing order. So,  $43 - 5 = 38$ .

10...1 4 9 16 25 36

(a) 37 (b) 40

(c) 45 (d) 49

Sol. (d): In this series the increasing sequence of odd numbers 3, 5, 7, 8, 11 is added to 1, 4, 9, 16, 25. So  $36+13=49$ .

Directions (Qs. 11 to 15): *For each of the following questions, four words have been given of which three are alike in some way and one is different. Find the odd word.*

11. (a) Blue (b) Red  
(c) Yellow (d) Dark

Sol. (d) Except (d), others are colours, while dark is the attribute of a colour.

12. (a) Hop (c) Jump  
(b) Dive (d) Fall

Sol. (d) All the terms are related to different exercises.

13. (A) Mother (b) Sister  
(c) Brother (c) Aunt

Sol. (c) All others are female relationship.

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14. (A) Writer            (b) Printer  
      (c) Publisher        (d) Reader

Sol. (d) All the persons work for the readers.

15. (A) Microphone        (b) Microscope  
      (c) Spectacles        (d) Telescope

Sol. (a) All the terms except microphone are related to vision.

**Directions (Qs. 16 to 20):** In each of the questions below, find out the correct answer from the given alternatives.

16. If FRIEND is coded as HUMJTK, how is CANDLE written in that code?  
(a) EDRIRL            (b) DCQHJK  
(c) FROBOC            (d) ESJFME

Sol. (A): In the code. The first letter is the second alphabet. The second letter is the third alphabet. The third letter is the fourth alphabet and soon after the corresponding letter in the word.

17. If in a certain code YELLOW is written as XFKMNX, how is COUNTRY coded?  
(a) DPVOSQX            (b) BNTMSQX  
(c) BPTMSSX            (d) AMSLRPW

Sol. (c): In the code, the letters in the odd places are one before and those in the even places are one ahead than the corresponding letter in the word.

18. If BATCH is coded as ABSDG, how is FORSAKE coded in that code?  
(a) ABDGS            (b) EPQ1ZLD  
(c) EQPZLTD            (d) GDSBA

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Sol. (b): In the code, the letters at odd places are one place before and those at even place are one place after the corresponding letter in the word.

19. in a certain code, RIPPLE is written as 613382 and LIFE is written as 8192. How is PILLER written in that code?

- (a) 318826                      (b) 318286  
(c) 618826                      (d) 328816

Sol. (A): The alphabets are coded as shown i.e., P as 3, I as 1, L as 8. E as 2 and R as 6. So. PILLER is code as 318826.

20. If PEOPLE is coded as PLPOEE, how is TREND coded?

- (a) TREDN                      (b) DNERT  
(c) NDETR                      (d) TNERD

Sol. (d): In the code. Keeping first and last letters the same, the second and second last. third and third last letters and so on are interchanged.

21. 'Data Processing' is related to 'Raw Data' in the same way as 'University' is related to :

- (a) Teacher                      (b) Building  
(c) Students                      (d) Principal

Sol. (c): 'Data processing' is the process of using 'Raw data' to shape it in the final product. Likewise. 'University' is the place which is used to shape the 'students' for their career.

22. 'Heart' is related to. 'Blood' in the same way as 'Lung' is related to :

- (a) Oxygen                      (b) chest  
(c) Purification                      (d) Air

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Sol. (a): 'Heart' is the organ which deals with the pumping and flow of 'Blood'. In the same way, 'Lungs' deals with the storage and flow of Oxygen.

23. 'Video' is related to 'Cassette' in the same way as 'computer' is related to :  
(a) Reels            (b) recording  
(c) Files            (d) Floppy

Sol. (d): 'Cassette' is used as software in the 'Video'. Similarly, 'Floppy' is used as a software in the 'Computer'.

24. 'Much' is related to 'Many' in the same way as 'Measure' is related to:  
(a) Count            (b) Calculate  
(c) Quantity        (d) Weighs

Sol. (a): 'Much' is synonym of 'Many'. Similarly, 'Measure' is synonym of 'Count'.

25. 'Liberty' is related to 'Slavery' in the same way as 'Danger' is related to:  
(a) Safety            (b) Dangerous  
(c) Anger            (d) Stability

Sol. (A): 'Liberty' is opposite to 'Slavery' and 'Danger' is opposite to 'Safety'.

26. Some boys are sitting in a row. x is sitting 7th from right and Y is sitting 8th from. if there are 4 boys between x and Y. How many boys are there in the row?  
(a) 9                  (b) 8  
(c) 10                (d) 7

Sol. (a) 9

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27. Pointing to the lady, Anuj *said*, "she is the sister of the father of my mother's son". Who is the lady to Anuj?

- (a) Niece            (b) Mother  
(C) Aunt            (d) sister

Sol. (c) Aunt

28. Six boys are sitting in a circle facing the centre. Gopal is to the left of Sachin. Sourav is between Ashok and Vikas. Ravi is between Ashok and Gopal. Who is left of vikas?

- (a) Gopal            (b) Ravi  
(c) Ashok            (d) Sachin

Sol. (a) Gopal

29. The day before yesterday was Saturday so tomorrow will be -

- (a) Friday            (b) Monday  
(c) Wednesday      (d) Tuesday

Sol. (d) Tuesday

30. The time on the watch is quarter to three. If the minute hand points to North-East. In which direction does the hour hand points.

- (A) South-East      (b) South-west  
(c) North-East      (d) North-West

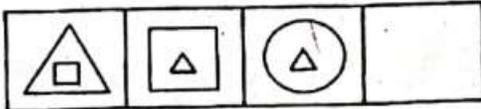
Sol. (b) South-west

**Directions (Qs. 31 to 40):** Each of the following questions consist of problem figures followed by answer figures. Select a figure from amongst the answer

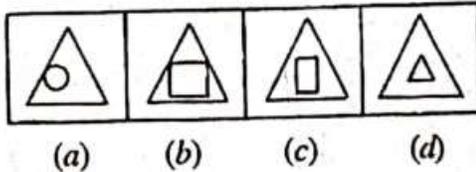
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figures which will continue the same series or pattern as established by the problem figures.

31. Problem figure



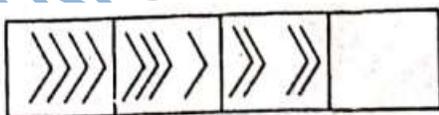
**Answer Figures**



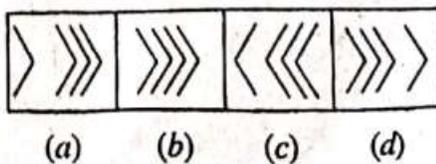
Sol. (c) PF/2 is obtained from PF/1 by taking out the inner geometrical figure outside and putting a new figure inside.

Similarly, AF/'C' is obtained from PF/3. Hence, AF/'C' completes the series.

32. Problem figure



**Answer Figures**



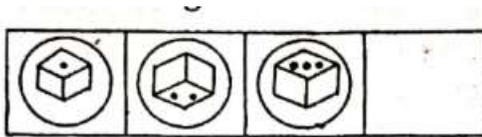
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Sol.(a) PF/2 is obtained from PF/1 by removing one '>' symbol to

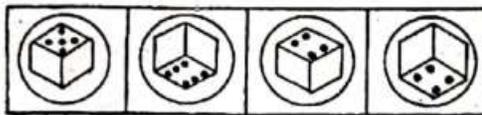
the right. Similarly AF/A is obtained from PF/3. Hence, AF/

A completes the series.

33.Problem figure



**Answer Figures**



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

Sol. (d) PF/2 is obtained from PF/1 by rotating the die

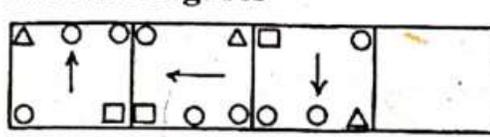
clockwise through  $180^\circ$  through  $180^\circ$  and adding one dot.

Similarly AF/'D' is obtained from PF/3. Hence, AF/'D'

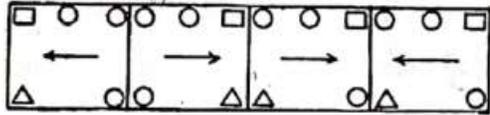
completes the series.

34.Problem figure

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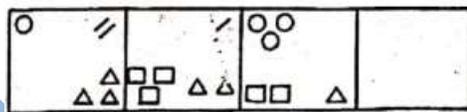
**Answer Figures**



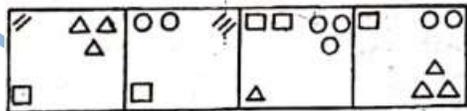
(a)      (b)      (c)      (d)

Sol. (c) PF/2 is obtained from PF/1 by rotating all the four geometrical figures clockwise through  $90^\circ$  and the arrow anti-clockwise through  $90^\circ$ . Similarly, AF/'C' is obtained from PF/3. Hence, AF/'C' completes the series.

35. Problem figure



**Answer Figures**



(a)      (b)      (c)      (d)

Sol. (b) PFI2 is obtained from PF/1 by moving the internal units

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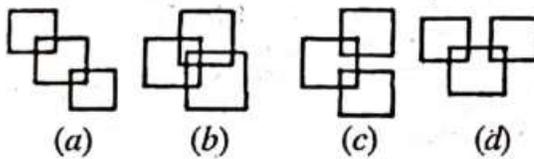
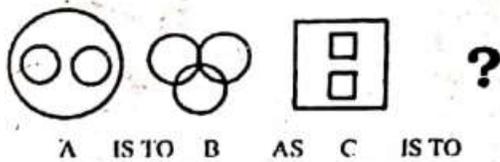
clockwise through length side of the square and

replacing them by equal number of new units

Similarly, AF/'B' is obtained from pF/3 Hence. AF/'B'

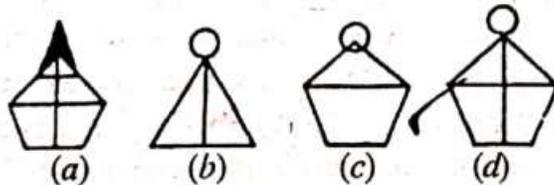
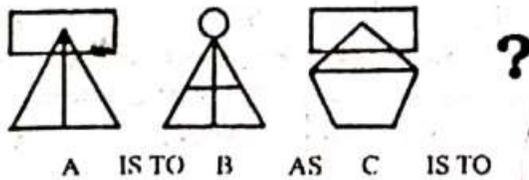
completes the series.

36.



Sol. (d)

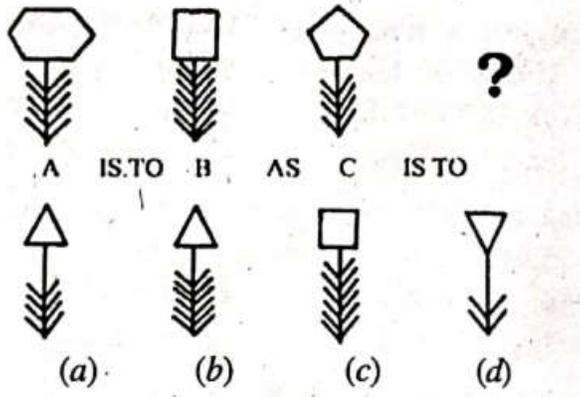
37.



Sol. (d)

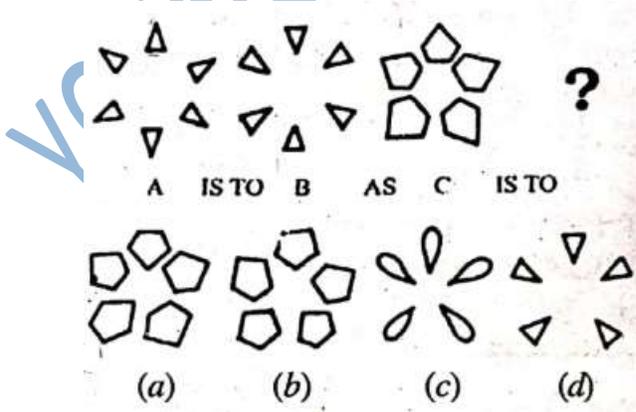
38.

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Sol. (b)

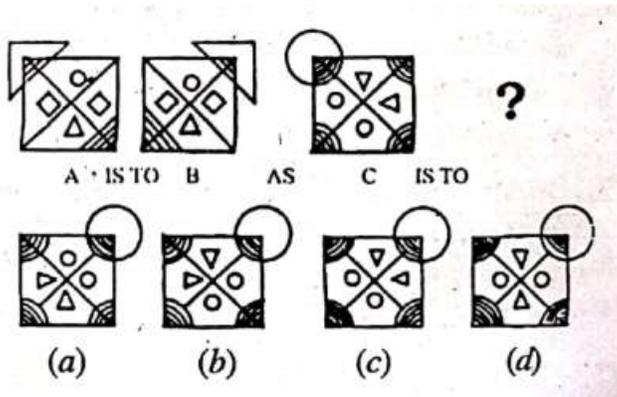
39.



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Sol. (b)

40.



Sol. (c)

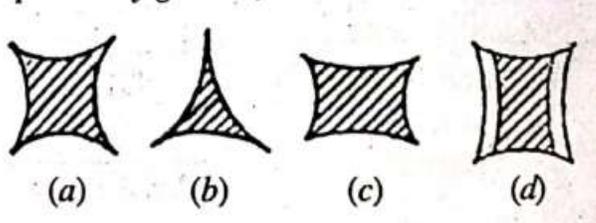
**Directions (Qs. 41 to 45):** In each of the following questions

one of the figures is different from the rest. Spot the

figure.

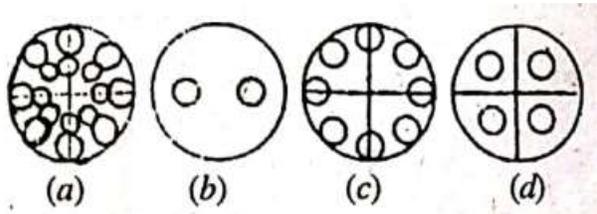
41.

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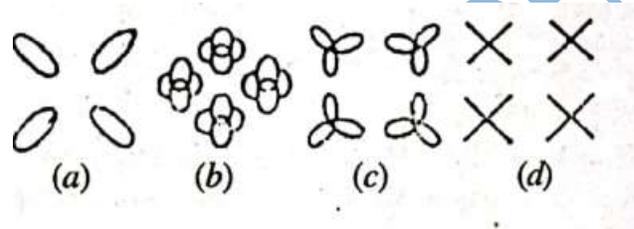
Sol. (d)

42.



Sol. (b)

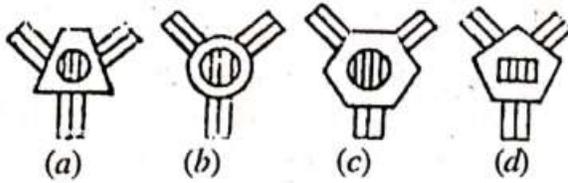
43.



Sol. (d)

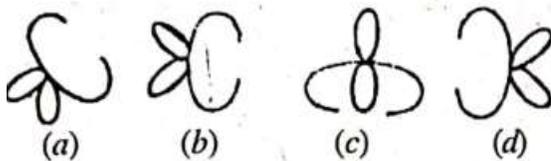
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44.



Sol. (b)

45.



Sol. (c)

**Directions (Qs. 46 to 50):** From the given answer figures,

select the one in which the question figure is

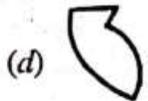
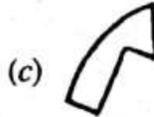
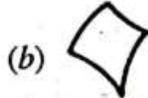
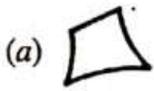
hidden/embedded?

Sol. (b)

46.

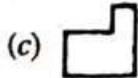
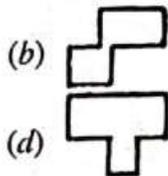
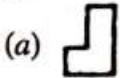
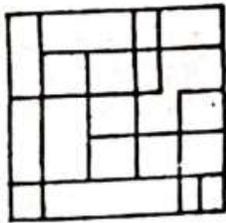
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Sol. (b)

47.

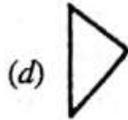
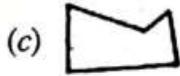
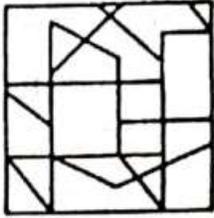


Sol. (b)

48.

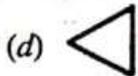
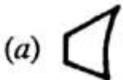
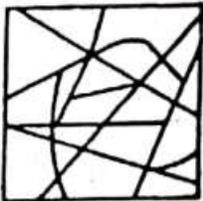
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Sol. (d)

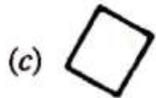
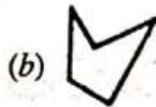
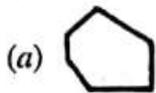
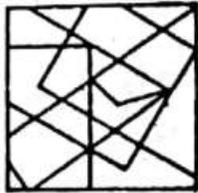
49.



Sol. (a)

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50.



Sol. (b)

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