

UT CHANDIGARH
EDUCATION DEPARTMENT

TEACHER'S HANDBOOK

(With Answers)



CLASS 7TH – PART (2)

*COMPILED BY: St. John's High School, Chandigarh
GMSSS, Sector-22-A, Chandigarh*

*“ONE CHILD, ONE TEACHER, ONE
BOOK, ONE PEN CAN CHANGE
THE WORLD”*



PISA RESOURCE GROUP- CHANDIGARH

1. DEVENDRA SINGH (GMSSS-19, CHD)
2. VIJAYPAL SINGH (GMSSS-20, CHD)
3. GURPREET KAUR (GMSSS-23, CHD)
4. NISHA (ST. JOHN'S HIGH SCHOOL, CHD)
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6. HEMLATA MALHOTRA (GMSSS-21, CHD)
7. ABHA KUMAR (GMSSS-19, CHD)
8. GARIMA (DPS-40, CHD)
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11. KAPIL MOHAN SOOD (GHS-53, CHD)
12. BHAWNA (SACRED HEART-26, CHD)
13. MONIKA(BHAWAN VIDYALAYA-27,CHD)
14. PARDEEP (GMSSS-40-B, CHD)
15. DILPREET (GHS-54, CHD)
16. GORVI (CHITKARA INTERNATIONAL-25, CHD)
17. SIMMI (CARMEL CONVENT-9, CHD)
18. NAVJOT SINGH (GMHS-25, CHD)
19. VIKRAM SINGH (GMSSS-26 (TM), CHD)
20. GURLEEN (SGGS-26, CHD)
21. POONAM (ST. ANNES-32, CHD)
22. SHIFALI (SCERT-32, CHD)
23. NEETU BEHAL (VIVEK HIGH SCHOOL-38, CHD)
24. RENUKA (CHITKARA INTERNATIONAL-25, CHD)
25. SUGANDHA (ST. KABIR -26, CHD)
26. SIMRANJEET KAUR (GHS MALOYA, CHD)
27. GURPREET KAUR (GMSSS-KAS, CHD)



GRADE 7

COMPARING QUANTITIES

Q1. Three candidates Ajay, Bijoy and Chandan contested an election and received 1800, 3300 and 3900 votes respectively. What percentage of the total votes did Ajay get?

- A) 20 %
- B) 40%
- C) 45%
- D) 70%



Ans: 20%

Explanation: - Total number of votes = 9000

Number of votes received by Ajay = 1800

$$\begin{aligned} \text{Percentage of the votes received by Ajay} &= (1800/9000) \times 100 \\ &= 20\% \end{aligned}$$

Q.2 Sam is a shopkeeper and has a shop of toys. He buys toys on bulk from a whole sale shop like all other shopkeepers. Sam noticed that Fidget spinner is in demand now a days and it helps to calm down people with anxiety disorder. He went to whole sale shop and purchased 20 dozens of Fidget spinner at the rate of Rs. 375 per dozen. He then sold each one of them at the rate of Rs. 33. How much profit has he made? Find in percentage.



- a) 3.5%
- b) 4.5 %
- c) 5.6%
- d) 6.5%

Ans: 5.6%

Explanation:

Cost price of 1 toy = $\text{Rs}(375/12) = \text{Rs}.31.25$

Selling Price of 1 toy = $\text{Rs}.33$

Gain = $33 - 31.25 = \text{Rs}.1.75$

Profit percent = $(1.75/31.25) \times 100$

$28/5 = 5.6\%$

Q3. Venkatesh invested a certain sum of money in a bank that paid simple interest. The amount grew to Rs. 2400 at the end of 2 years. He waited for another 3 years and received a final amount of Rs. 30,000. What was the principal amount that he invested at the beginning?



- A) Rs. 20,000
- B) Rs. 15,000
- C) Rs. 17,500
- D) Rs. 21,000

Sol. - Let the amount invested at the beginning be = x

$$x + (2rx/100) = 24000 \Rightarrow x + (rx/50) = 24000$$

$$x + (5rx/100) = 30000 \Rightarrow x + (rx/20) = 30000$$

After subtracting,

$$rx = 200000$$

$$\text{Substituting } rx \Rightarrow x + (4000) = 24000$$

$$\Rightarrow x = 20,000$$

Answer – A)

Q. 4 Kabir and Preeti are playing number games. They are discussing about various numbers. Kabir has recently studied about the concept of percentage. So, Preeti asked him a question. What percent of numbers from 1-30 have 1 or 9 at the unit's place ?

- A) 12 %
- B) 15%
- C) 20%
- D) 22%

Ans: 20%

Sol. – Total numbers = 30

Numbers having 1 or 9 at the unit's place = 1,9,11,19,21,29

$$\text{Percentage} = (6/30) \times 100$$

$$= 20 \%$$

Q. 5 Shivani works in an International company in Mumbai, but it is away from her home town so she decided to live on rent in Mumbai with her child. Her monthly income is Rs 1,60,000. She pays 16% of this as her house rent and

10 % of remaining on her child's education. The money left with her is

- a) Rs 1,36,000
- b) Rs 1,20,000
- c) Rs 1,21,960
- d) Rs 1,20,960

Ans 120960

Expansion: 16% of 1,60,000 = 25600

Remaining 1,60,000-25600= 134400

10% of 134400 = 13440

Money spent = 134400-13440 = Rs.1,20,960

Q.6 In a quarterly examination a Saksham secured 30% marks and got failed by 12 marks. In the same examination Nityam secured 40% marks and got 28 marks more than minimum marks to pass. The maximum marks in the examination is

- A) 300
- B) 500
- C) 700
- D) 400

Answer – 400

Sol. – Let the maximum marks be = x

$$\text{Score of Saksham} = (30\%)x = (3/10)x$$

$$\text{Score of Nityam} = (40\%)x = (4/10)x$$

$$\Rightarrow (3x/10) + 12 = (4x/10) - 28$$

$$\Rightarrow x = 400$$



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Q.7 A trader sells rice to many grocery stores across the city. He is dealing with two variety of rice one he uses is of average quality and it cost him Rs. 20 per kg and other i.e. of good quality cost him Rs. 36 per kg. In order to gain profit he mixes both varieties and sells it to grocery store. For one order, he mixes 26 kg of rice of average quality with 30 kg of rice of good quality and then sold the mixture at Rs. 30 per kg. How much profit has his made? Find in percentage.



- a) No profit, no loss b) 5 % c) 8% d) 10%

Ans: 5%

Explanation:

$$\begin{aligned} \text{C.P. of 56 kg rice} &= \text{Rs}(26 \times 20 + 30 \times 36) \\ &= \text{rs}(520 + 1080) = \text{Rs } 1600 \end{aligned}$$

$$\text{S.P. of 56 kg rice} = \text{Rs}(56 \times 30) = 1680$$

$$\begin{aligned} \text{Gain} &= (1680 - 1600) / 1600 \times 100 \\ &= (80 / 1600) \times 100 \\ &= 5\% \end{aligned}$$

Q.8 Mr Thomas wants to invest some part of his savings in some schemes so that he can get good interest. He searched for different schemes and found two schemes with maximum profit. He invested an amount of Rs. 13,900 in two different schemes A and B at the simple interest rate of 14% p.a. and 11% p.a. respectively. At the end of two years he earned total interest Rs. 3508. How much amount he had invested in Scheme B?



- a) Rs. 6400 b) Rs. 6500 c) Rs. 6450 d) Rs. 4500

Ans: A(Rs. 6400)

Explanation: Let the sum invested in Scheme A be Rs. x and that in Scheme B be Rs. (13900 - x)

$$\begin{aligned} \text{SI} &= (x \times 14 \times 2) / 100 + [(13900 - x) \times 11 \times 2] / 100 = 3508 \\ 28x - 22x &= 350800 - (13900 \times 22) \\ 6x &= 45000 \end{aligned}$$

$$X = 7500$$

$$\begin{aligned} \text{Amount invested in Scheme B} &= 13900 - 7500 \\ &= \text{Rs } 6400 \end{aligned}$$

Q.9 Wow Candiesssss!!! Two friends Akshita and Beenu had some candies each. One of them had 15 candies more than the other. The candies with Akshita were 60% of the total candies with both of them. How many candies did each have?



- A) 40, 25
- B) 47, 32
- C) 45, 30
- D) 49, 34

Answer – C

Explanation: – Let the total number of candies = x

$$60\%(x) - 40\%(x) = 15$$

$$20\%(x) = 15$$

$$x = 75$$

Number of candies each one have 45, 30

Q.10 Bank A pays 5% interest on its savings accounts.

Bank B pays 4% interest on its savings accounts.

Column A	Column B
The percent by which bank B would have to raise its interest rate to match bank A	20%

- A) If the quantity in Column A is greater
- B) If the quantity in Column B is greater
- C) If the two quantities are equal
- D) If it is impossible to determine which quantity is greater

Answer – A)

Sol. – Actual increase = 1%

$$\text{The increase percent} = (1\%/4\%) \times 100 = 25\%$$

25% > 20%, therefore

Q.11 Jeans at Levi's showroom are at 40% off. Rohit and Mohit want to buy a pair of jeans for their friend which was originally priced at Rs. 4200. They also want to redeem a Levi's voucher worth a cash discount of 15%. How much will they pay for a pair of jeans?



Sol. – M.R.P. of one pair of jeans = Rs. 4200

$$\text{Discount} = (40/100) \times 4200$$

$$= \text{Rs. } 1680$$

$$\text{Amount after discount} = \text{Rs. } 2520$$

$$\text{Voucher discount} = (15/100) \times 2520$$

$$= \text{Rs. } 378$$

$$\text{Cost of the jeans} = \text{Rs. } 2142$$

Q.12 Rina wants to shift from Panchkula to New Chandigarh. She decided to sell her old flat in Panchkula so that she can buy a flat in New Chandigarh. She approaches a property dealer for selling her old flat and with the same money she wants to buy flat in New Chandigarh. Property dealer told her that currently property rates are less and he can give Rs.18,7000 for her plot. She calculated and found out that if she sold it for Rs. 187000, she loses 15% and with that amount she can not buy flat in new Chandigarh as for that flat she needs a profit of 15% . At what price should she sold in order to buy new flat.



Ans: Rs 25,3000

Explanation:

$$85:187000 = 115:x$$

$$X = (187000 \times 115)/85$$

$$\text{S.P.} = \text{Rs. } 253000$$

Q.13 Ramesh has installed play station at his home worth Rs. 20,000. He gets to know that his friends are going out to play video games and are paying large amount of money to the shopkeepers. So he decided to allow his friends to play at his home same games and offer them that he will charge less than the shopkeeper. He calculated electricity expenses per hour. On first day he earned Rs.392 for one hour and found out that he make a profit of 22.5% on the cost of electricity(for an hour) . Find the profit earned by him for that hour.



Ans:

Rs. 72

Explanation:

$$\begin{aligned} \text{Expenses of Electricity per hour} &= \text{Rs}(100/100+22.5) \times 392 \\ &= 320 \end{aligned}$$

$$\begin{aligned} \text{Therefore Profit} &= \text{Rs } 392-320 \\ &= \text{Rs } 72 \end{aligned}$$

Logical reasoning

Q.1 A Joint family has a husband and a wife, their four sons and their wives. Every son has three sons and a daughter. Find out the total number of male members in the family.



- A) 4
- B) 8
- C) 12
- D) 17

Ans: 17

Explanation : $1+4+4*3=17$

Q.2 CTU buses leave Chandigarh Bus Stand after every 30 minutes. A passenger asked at the enquiry desk about the bus timings. The clerk told him that the bus had already left ten minutes ago and next bus will be leaving at 9.35 am. At what time



did the clerk give this information to the passenger?

- A) 9:10 am
- B) 8:55 am
- C) 9:05 am
- D) 9:15 am

Ans: 9:15

Explanation : Last bus was at 9.05 and he asked after 10 minutes.

Q.3 If the cost of one Milkybar is Rs 10 then how many Milkybars will you get for Rs 60 if you get one free chocolate on a purchase of three chocolates?

- A) 6
- B) 8
- C) 10
- D) 12



Ans 8

Explanation: 3+1 chocolates for Rs 30 so 8 for Rs 60

Q.4 PVR Ltd. is the largest and the most premium film exhibition company in India. Since its inception in 1997, the brand has redefined the cinema industry and the way people watch movies in the country.

In PVR Elante, Chandigarh there are rows marked from A to L (Row 'I' is not there) and each row has fifteen seats with numbers written from left to right



Vansh and his mother Reema booked the movie tickets and got seats G6 and G7. If Vansh is sitting on seat G6, what will be his position from the other side.

- A) 6th
- B) 8th
- C) 9th
- D) 10th

Ans D

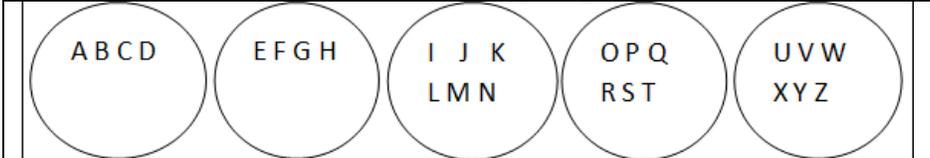
G-6 implies 6th seat from left side and total seats in the row are 15. so $(15-6+1)^{TH}$ seat from right.

Q.5

VALUE OF THE WORD



Ankit and Meena are siblings. Their mother gives them a task. To accomplish the task she directed them to use the alphabets as follows. She asked them to categorise the English alphabets into five groups such that each group starts with a vowel and have immediately following consonants in the group.



These groups are assigned values as 10 for the first group, 20 for the second and so on upto 50 for the last group. Each letter in a particular group has the same value as that of the group. Then value of the word is obtained by adding the values of the respective letters of the word.

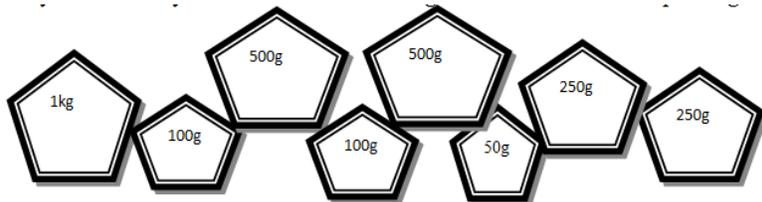
What would be the value of the word “HIGH”?

- A) 80
- B) 90
- C) 110
- D) 120

Ans: 90 Explanation: $H+I+G+H=20+30+20+20=90$

Q.6. In how many different ways can we combine the weights shown here to add up to 2kg?

- A) 2
- B) 3
- C) 4
- D) 5



Ans:3

Explanation: $2\text{kg}=1\text{kg}+500\text{g}+250\text{g}+250\text{g}$

$2\text{kg}=1\text{kg}+500\text{g}+500\text{g}$

$2\text{kg}=1\text{kg}+500\text{g}+250\text{g}+100\text{g}+100\text{g}+50\text{g}$

Q.7 A dice is numbered from 1 to 6 (with the dots) in a way that sum of the numbers on opposite faces comes to be 7. Such dice is called usual dice.

Three friends Kashish Manjot and Samar have their own usual dice and thrown them simultaneously. The outcomes are shown in the picture. The total of the numbers on the top faces is What will be the total of the faces touching the ground?



Ans: 14

Explanation: As the sum of opposite faces is 7 this implies 4 has 3, 1 has 6 and 2 has 5 on the faces touching the ground.

$3+6+5=14$

Q.8

VILLAGE

In a village of Bastar district in Madhya Pradesh only two types of people belong to a tribal class. First type is known as class A while the other is known as class B. In that village there is no other type of persons except these two. Activity of both type of people are governed by perfectly patterned norms of social behavior. Each of people of that tribe has to obey the norms and they are rigid about these norms -

As far as marriage is concerned the following norms are to be followed-

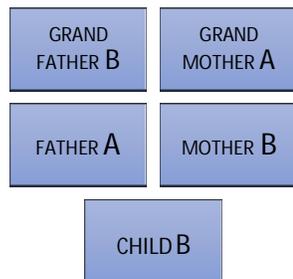
- Members of class A cannot marry a member of their own class but can only marry the members of class B.
- After being married, each male member loses the membership of the class in which he was born but becomes the member of the class to which his wife belongs.
- As far as the female is concerned, she remains the member of her own class even after marriage.
- When a child is born he/she automatically becomes the member of his/her mother's class.

- Whereas after a divorce or after being a widower, the male member gains back the membership of his original class.
- Nobody can marry more than one person according to social laws.

If Ravi kishan a child belonging to class B what would be the class of his grandfather?

Ans: class b

Explanation: let us go back ward



Q.9 PIZZA

Kareena and Fatima are pizza lovers. They collected money and together went to La Pinoz to enjoy a medium pizza.

There they can have a La Pinoz special pizza or they can choose the ingredients to make their own pizza

The price list is given below:

Product	Price in Rs
Pindiz special pizza	180 or 150
Bread	90or 120 or130
Cheese	35or 45
Toppings	25 or 40 or50



1. They want their pizza with their own choices. Then what are the minimum and maximum prices of pizza in the shop.

Ans: minimum=150 and maximum=225

Exp: by adding minimum and maximum prices of ingredients

- 2.If both of them collectively have 200 Rs and wants to buy most expensive pizza which they can afford. How much money can they afford to spend on each? Put your answer in the table below.

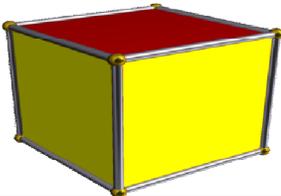
Pizza ingredients	Amount in Rs
Bread	
Cheese	
Toppings	

Ans: Bread 130,cheese 45, toppings 25

Explanation: $130+45+25=200$

Q.10

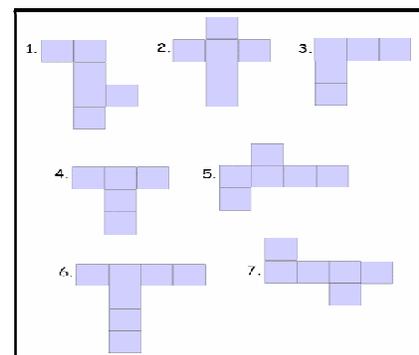
CUBE



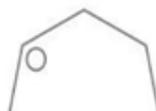
In geometry, a **cube** is a three-dimensional solid object bounded by six square faces, twelve edges, with three meeting at each vertex and *net* is a two-dimensional figure that can be folded into a three-dimensional object. A cube has eleven nets that is, there are eleven ways to flatten a hollow cube by cutting seven edge

Some students doing an activity of making cube nets and they prepare following nets. Which of the nets below will form a cube?

Ans:3



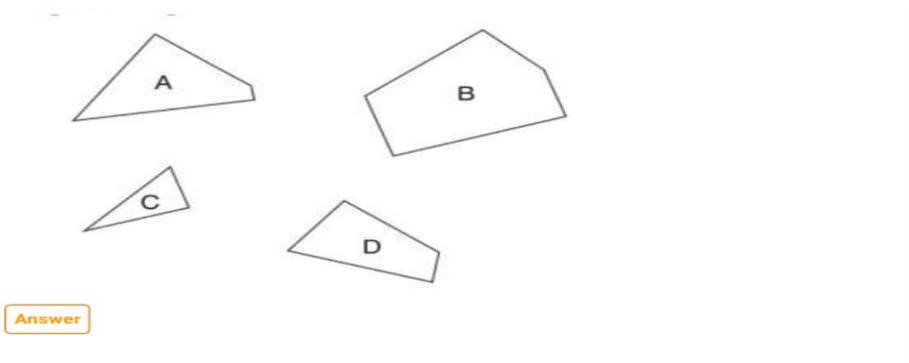
Q.11 At each stage the black dot moves three corners clockwise and the white dot moves four corners anticlockwise. after how many stages will both dots be together in the same corner?



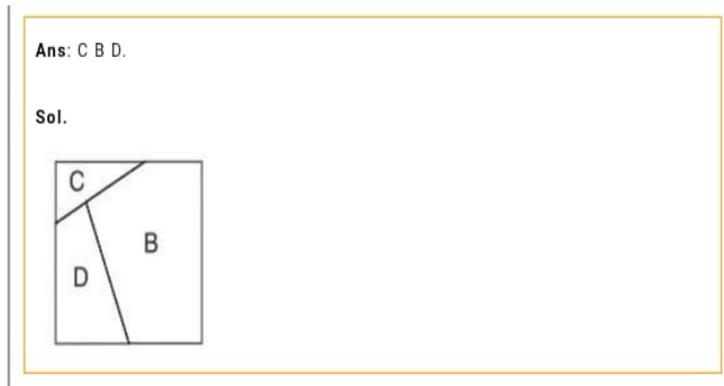
Ans: They will never appear together

Explanation: In heptagon three corners clockwise is the same as four corners anticlockwise

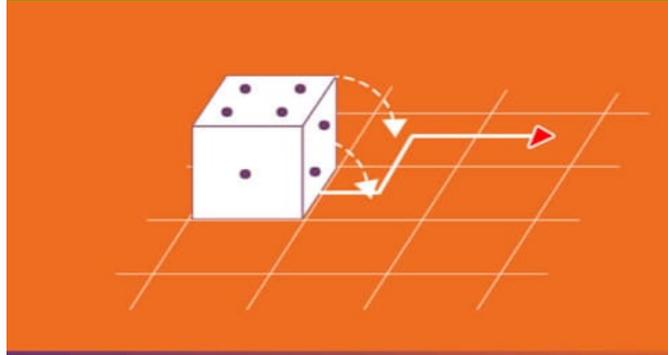
Q.12 which three of the four pieces below can be fitted together to form a perfect square?



Ans 12



Q.13 If the dice will be moved until the pointed arrow's end, which number will be on the top?



Ans13 3

Q.14 Reshma and Parveen are ranked ninth and thirteenth from the top in a class of 57 students. What will be their respective ranks from the bottoms of the class?

- a) 48,44
- b) 49,45
- c) 45,49
- d) 47,43

Ans14: 49,45

Rational Numbers

Q.1 Ekta and Jatin are playing a game. They have to pick a slip with a number written on it from the bowl and stand on that number on the number line drawn on the floor. Ekta gets $\frac{-8}{5}$ and Jatin gets $\frac{-24}{15}$. They start fighting for their position. Explain why?

Ans: $\frac{-8}{5}$ and $\frac{-24}{15} = \frac{-8}{5}$
Both got the same number

Q.2 Ritu walks $\frac{3}{5}$ Km from point A towards east and then turns back and walks $1\frac{2}{5}$ km in the opposite direction on the same road. What is her distance from point A and in which direction is she facing?

Ans: Let us represent distance covered towards east by +ve sing.
Then the distance in opposite direction would be taken as -ve sing.

Ritu's final position from A = $\frac{3}{5} - 1\frac{2}{5}$

$$\frac{3}{5} - \frac{7}{5} = -\frac{4}{5}$$

Ritu is at a distance $\frac{4}{5}$ km from A towards west.

Q.3 Gayatri bought $2\frac{1}{2}$ kg mangoes and $1\frac{3}{4}$ kg grapes from the market. The family ate $1\frac{1}{4}$ kg mangoes and $\frac{1}{2}$ kg grapes. How many kgs of fruits are left?

Sol: Fruits bought = $2\frac{1}{2} + 1\frac{3}{4} = \frac{5}{2} + \frac{7}{4} = \frac{17}{4}$

Fruits eaten = $1\frac{1}{4} + \frac{1}{2} = \frac{7}{4}$

Fruits left = $\frac{17}{4} - \frac{7}{4} = \frac{5}{2}$ kg



Q.4 Mr. Paul is a tailor. He bought 5 m of cloth for Rs. $162\frac{1}{2}$. While cutting, $1\frac{1}{4}$ m of cloth gets wasted. He stitches two dresses of the same type. What is the length of cloth used in each dress?

Ans: Total length of cloth = 5 m.

$$\text{Length of cloth wasted} = 1\frac{1}{4} = \frac{5}{4}$$

$$\text{Length of cloth used in stitching dresses} = 5 - \frac{5}{4} = \frac{20-5}{4} = \frac{15}{4}$$

$$\text{Length of cloth used in each dress} = \frac{1}{2} \times \frac{15}{4} = \frac{15}{8}$$

Q.5 ICC Cricket World Cup 2019

The **2019 ICC Cricket World Cup** was the 12th Cricket World Cup, a quadrennial, One Day International cricket tournament contested by men's national teams and organised by the International Cricket Council (ICC). It was hosted by England and Wales. The tournament was contested by 10 teams, who played in a single round-robin group, with the top four at the end of the group phase – India, Australia, New Zealand and England – progressing to the semi finals.



Following are the details of top five batsmen :

country	Player	Matches	Innings	Runs	HS	AVG	SR	100	50	4s	6s
India	Rohit Sharma	9	9	648	140	81	98.3	5	1	67	14
Australia	David Warner	10	10	647	166	71.88	86.36	3	3	66	8
Bangladesh	Shakib Al Hasan	8	8	606	124	86.57	96.03	2	5	60	2
New Zealand	Kane Williamson	10	9	578	148	82.57	74.96	2	2	50	3
England	Joe Root	11	11	556	107	61.7	89.53	2	3	48	2
	Total	48	47	3035	685	383.72		14	14	291	29

Question a) . In the above data the runs scored by each player is mentioned. According to the given data who scored the maximum runs and what part of total runs he scored?

2. If you drove from Rawalpur to Sonapur and then from Sonapur to Himgaon, how far would you drive ?

Ans – $117\frac{2}{3}$ km

3. Amit drove from Rawalpur to Ramgarh but exactly halfway he remembered that he forgot his documents, so he went back again to bring his documents. After reaching Ramgarh he decided to go to Sonapur. What was the total distance covered by him?

a. $61\frac{1}{3}$ km b. 102 km c. 100 km d. $63\frac{1}{2}$ km

Ans – b. 102 km

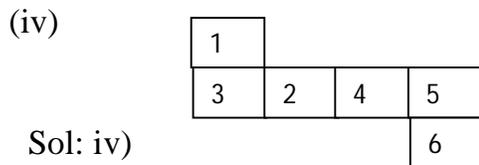
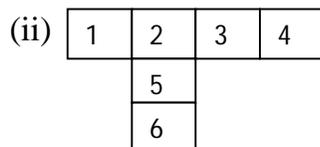
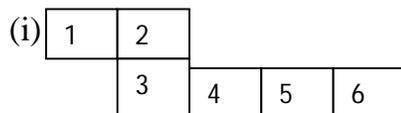
4. The distance between Himgaon and Ramgarh is $210\frac{3}{8}$ km. Rohan covered $42\frac{3}{40}$ km ,what part of the total distance was covered by him ?

a. $\frac{1}{5}$ b. $\frac{1}{6}$ c. $\frac{2}{3}$ d. $\frac{2}{5}$

Ans – a. $\frac{1}{5}$

VISUALIZING SOLID SHAPES

Q.1 Malini and Renuka wants to play snakes and ladders but unfortunately they don't have a die. They started making die with the help of simple cardboard using different net methods. Which one of the following will be correct, if the sum of numbers on the opposite faces of die should be 7.



Sol: iv)

Q.2 Ankita has a toy in the shape of a cylinder surmounted by a cone.

a)How many surfaces will this toy have?

i) 1 ii) 2 iii)3 iv) 0

sol:3

Q.3 Marisha has 2 shoe boxes of the same size. She wants to join both the boxes to make a big box opened from the top to keep her jewellery . How many faces will the new box have?



- a) 5 b) 8 c) 6 d) 7

Sol: a) 5 faces.

Q.4 Mr. Malik told Sumit to bring a few solid shapes from the Maths Lab. One cube slipped from his hand and broke from one corner. The part which is broken from the corner is in triangular shape. How many vertices that broken cube has?



Sol: Vertices of the broken cube =10.

Q.5 The owner of a Mall has done some modification in the mall. He had changed the shape of the lift to a Hexagonal prism form. How many edges does the lift have now?

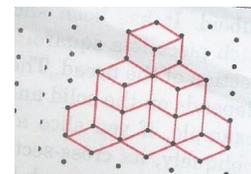
Sol: Edges of hexagon prism at the bottom =6

Edges of hexagonal prism at the top = 6

Edges of hexagonal prism on the sides =6

Total edges =6+6+6=18.

Q.6 Mr. Fernandes bought a 20 marla plot for his joint family. The architect made an outline map of the house in an isometric sketch on the paper. Each room is in the form of a cube with equal length, breadth and height. How many rooms are there in the given sketch?

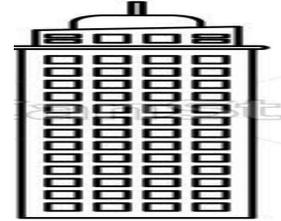


- a) 11 b) 10 c) 9 d)15

Sol: b) 10

Q.7 Yogya had gone to Bombay is his summer vacation. He was surprised to see many multi-storied buildings there. One day he stood in front of one building and started counting number of houses in that.

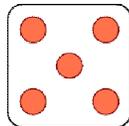
The building was in a cuboidal shape. There were 30 houses in one row and 4 rows on one side of the building. The ground floor was used for parking area .How many houses were there in all?



Ans: Total no of faces = 4
No of rows in one face =4
No of houses in a row =30
No of houses on one face = 30 X4=120
No of houses on 4 faces= 120X4= 480

Q.8 BEAUTY OF DICE

A traditional dice is a [cube](#) with each of its six faces marked with a different number of dots ([pips](#)) from one to six. When thrown or rolled, the die comes to rest showing on its upper surface a random [integer](#) from one to six, each value being equally likely. Opposite sides of a modern die traditionally add up to seven, requiring the 1, 2, and 3 faces to share a vertex.^[15] The faces of a die may be placed [clockwise or counterclockwise](#) about this vertex. If the 1, 2, and 3 faces run counterclockwise, the die is called "right-handed". If those faces run clockwise, the die is called "left-handed". Western dice are normally right-handed, and Chinese dice are normally left-handed.



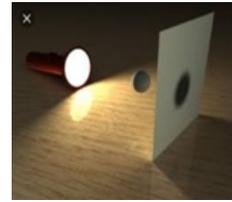
What is the number given on the opposite face of the dice.

Ans: 2

Expanation: $2+ 5=7$

Q.9 Ishita, Shruti and Roveena are three roommates in CEPT University's hostel .One night when there was no electricity in their room, they planned to play a game with the help of a torch.

- a) Ishita was holding the torch and Shruti held the object in front of the torch and the shadow of the object was falling on the wall. If Roveena saw a rectangle in the shadow, what can be the object that Shruti was holding?



Ans:- Book, shoe box, rod etc.

- b) Later,Roveena observed a circular shadow on the wall .What can be the object that Shruti was holding?

Ans:- Circular wall clock, plate, ball.

Q.10 Mr. Nair decided to construct a house. The constructor told Mr. Nair to order 2000 bricks. On receiving the bricks they were stacked in the form of a cuboid. But when the constructor saw the bricks he told Mr. Nair that bricks were less in number. Mr. Nair started counting. 15 bricks were stacked length wise, 10 width wise, 10 bricks heights wise and 100 bricks were scattered here and there. How many bricks did he count?



Ans: No. of bricks arranged:

length wise=15

width wise=10

height wise= 10

Total = $15 \times 10 \times 10 = 1500$

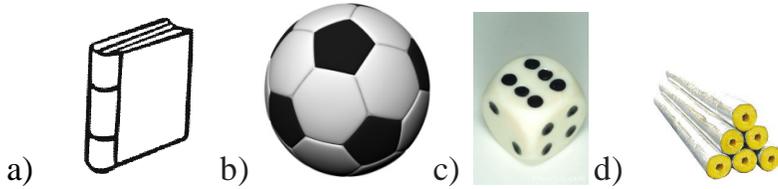
No. of scattered bricks =100

Total no. of bricks = $1500 + 100 = 1600$

Q.11 Shadow is a dark (real image) area where light from a light source is blocked by an opaque object. The cross section of a shadow is two-dimensional , of the object blocking the light .

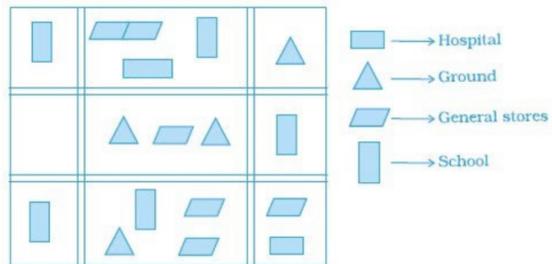
Shadow of a 3D object is

which of the following Could be the object ?



Ans: book

Q.12 Ramesh has prepared a map of his town using different shapes representing different buildings.



i) The number of hospitals in the town is

- a. 4 b. 1
c. 2 d. 3

Ans: 2

ii) The ratio of number of general stores to that of ground is

- a. 1:2 b. 2:1 c. 2:3 d.3:2

Ans: 2:1

Number of general stores = 6

Number of grounds = 3

No. of general store/ no.of grounds= 6/3

$$= 2:1$$

iii) The ratio of schools to hospitals is

- a. 2:5 b. 5:2 c. 3:2 d. 5:6

Ans:

Number of schools = 5

Number of hospitals = 2

No. of Schools/ no.of hospitals = 5/2

$$= 5:2$$

मेहनत इतनी खामोशी से करो
कि सफलता शोर मचा दे

