IMPORTANT INSTRUCTIONS

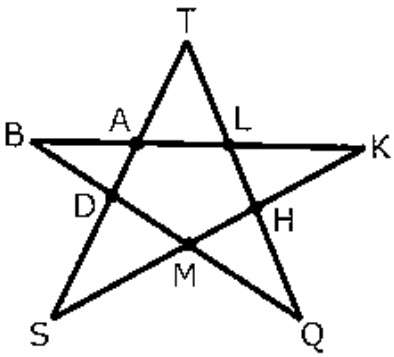
- The maximum marks are 300. Time allotted is **90 MINUTES.**
- There are four sections in the question paper having total **75 questions:**
  - Section – A : Maths (20 Questions)
  - Section – B : Science (20 Questions)
  - Section – C : English (20 Questions)
  - Section – D : Aptitude (15 Questions)
- Each question carries **4 marks.**
- **Negative Marking : ¼ (One-fourth) mark** will be deducted for every incorrect answer.
- **Use only BLUE / BLACK ball pen to fill the circles in bubble sheet.**
- Use of PENCIL is strictly **not allowed.**
- **Do not use marker or white fluid** to hide the mark.

SECTION – A
MATHS

Choose the correct option.

1) In the given (fig. 1) there are _____ line segments.

   a) 10 b) 14
   c) 12 d) none of these



(fig. 1)

2) Arrange the following in the descending order.
   92.3, 92.36, 9.236, 92.63, 923.6

   a) 92.3, 92.36, 923.6, 9.236, 92.63 b) 92.3, 92.36,92.63, 923.6,9.236
   c) 923.6, 92.63, 92.36, 92.3, 9.236 d) 923.6,9.236, 92.63, 92.36, 92.3

3) On simplifying : $20 + [14 - \{18 - 10 + (4 - 2)\}]$, we get

   a) 23 b) 25 c) 21 d) 24

4) Match the following and select the option that best suits the given criteria.

Column I		**Column II**	
i)	255	l)	Multiple of 3
ii)	343	m)	Multiple of 11
iii)	762	n)	Multiple of 7
iv)	1331	p)	Multiple of 5

	i)	**ii)**	**iii)**	**iv)**
a)	p)	m)	l)	n)
b)	p)	l)	n)	m)
c)	p)	n)	l)	m)
d)	m)	l)	p)	n)

5) Tell the maximum consecution numbers below 100 without any prime number between them.

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

6) Find m and n in the given ratios: 48 : 384 = m : 784 = 53 : n

a) m=35, n=88 b) m=98, n=424 c) m=26, n=153 d) m=82, n=584

7) If 63.3605 = 6A + 3/B + 3C + 6/D + 5E, then what is the value of 4A + 7B + 6C + D + 3E.

a) 47.603 b) 47.6003 c) 4.7603 d) 147.6003

8) Consider the following quotients:

I. 368.39 divided by 17
II. 170.50 divided by 62
III. 875.65 divided by 83

Their correct sequence in decreasing order is_____.

a) I, III, II b) II, I, III c) III, II, I d) III, I, II

9) If the side of the square field is doubled, then its area will be _____.

a) four times b) doubled c) halved d) tripled

10) The ascending order of XX, XVI , V is _____.

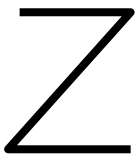
a) V, XVI, XX b) XX, V, XVI c) V, XX, XVI d) none of these

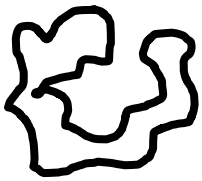
11) Which of the following statements are true?

i) A chord of a circle is a line segment joining any two points on the circle.
ii) A diameter is the longest chord of the circle
iii) A sector is the region in the exterior of a circle enclosed by an arc on one side and a pair of radii on the other two sides.
iv) The diameter of a circle divides it into two semi – circles.

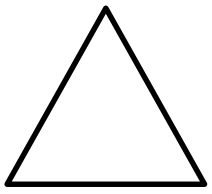
a) i, ii and iii b) i, iii and iv c) ii, iii and iv d) i, ii, iii and iv

12) Angelina drew few random figures (fig. 2, 3, 4, 5) in her sketchbook. How many of her drawings are closed figures?

a)  (fig. 2)

b)  (fig. 3)

c)  (fig. 4)

d)  (fig. 5)

a) 5 b) 4 c) 3 d) 2

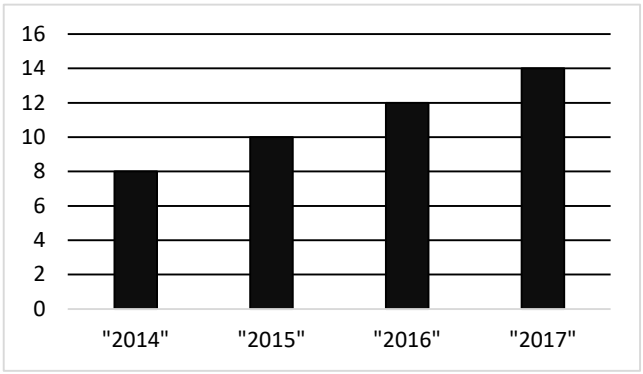
13) Identify the smallest 5 digit number exactly divisible by 3, 4, 5, 6, 7 and 8?

a) 90240 b) 10080 c) 99960 d) 100000

14) Which of the following is INCORRECT?
   a) Zero < positive integer > negative integer
   b) Positive integer > negative integer < zero
   c) Negative integer > zero > positive integer
   d) Positive integer > zero > negative integer

15) The average of the first five prime numbers is
   a) 5.6 b) 5.5 c) 5.3 d) 5.8

16) The graph shown in (fig. 6) shows the total sale of cars in Jaipur city from 2014 to 2017 What is the increase in the sale of cars from the year 2015 to 2017?



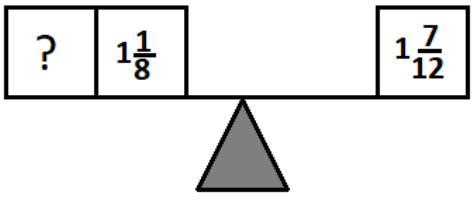
(fig. 6)

   a) 2000 b) 1000 c) 3000 d) 4000

17) Prateek, Divyanshu and Manish jog daily in the morning around a rectangular park. They take 3 minutes, 10 minutes and 5 minutes respectively to take one complete round. One morning, they all started at the same time from the same point and jog in the same direction for an hour
   i) After how many minutes will all three of them meet again?
   ii) How many times will they meet together during 1 hour period?

	(i)	**(ii)**		**(i)**	**(ii)**
a)	20 minutes	3 times	b)	25 minutes	2 times
c)	30 minutes	2 times	d)	60 minutes	1 time

18) Write the missing fraction in the given (fig. 7) to balance the scale.
   a) $\frac{11}{24}$ b) $\frac{10}{24}$
   c) $\frac{5}{24}$ d) $\frac{1}{24}$



(fig. 7)

19) Which of the following statements is true?
   a) The product of two positive and two negative integers is positive.
   b) The product of any number of negative integers is negative.
   c) The product of two negative integers is negative.
   d) The sum of a negative integer and a positive integer is always positive.

20) The correct expression representing -2 multiplied by p and subtracting that from 5 results in a value of 10 is
   a) $5 - 2p = 10$ b) $2 + p - 5 = 10$ c) $2p - 5 = 10$ d) $2(5 - p) = 10$

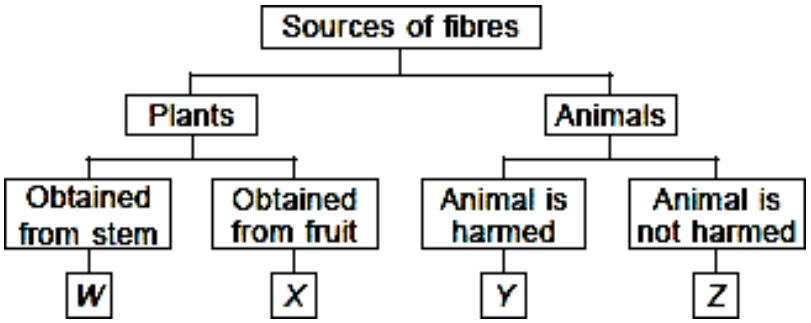
SECTION – B
SCIENCE

21) Depending upon the nature of the constituents present in a mixture, Suhana, a class 6 student suggested some methods of separation as shown in the table.
Which of these is / are incorrect methods (s) of separation?

	Type of mixture	Methods of separation
1.	Solid – Liquid	Handpicking, Sieving
2.	Solid – Liquid (insoluble)	Sedimentation – Decantation, Filtration
3.	Liquid – Liquid (immiscible)	Decantation, Separating Funnel
4.	Solid – Liquid (soluble)	Filtration, Decantation
5.	Liquid – Liquid (miscible)	Distillation

a) 1 and 2 only b) 3 only c) 1 and 5 only d) 4 only

22) Refer to the given flow chart (fig. 8) and select the correct option.



(fig. 8)

a) X – Flax, Y – Silk b) W – Cotton, Y – Silk
c) W – Flax, Z – Wool d) X – Jute, Z – Wool

23) Look at the information given below in (fig. 9, 10, 11, 12)
W: Helps in the formation of red blood cells.
X: Helps in the clotting of the blood.
Y: Helps in the formation of strong bones and teeth
Identify the correct option.

a)

	W	X	Y
Vitamin	Vitamin B_{12}	Vitamin K	Vitamin D
Sources	Liver, eggs	Spinach, cabbage	Sunlight, butter

(fig. 9)

b)

	W	X	Y
Vitamin	Vitamin K	Vitamin B_{12}	Vitamin D
Sources	Milk, Meat	Liver, eggs	Sunlight, butter

(fig. 10)

c)

	W	X	Y
Vitamin	Vitamin D	Vitamin B_{12}	Vitamin K
Sources	Sunlight, butter	Liver, eggs	Milk, Meat

(fig. 11)

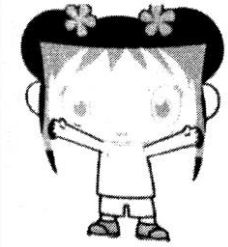
d)

	W	X	Y
Vitamin	Vitamin B_{12}	Vitamin C	Vitamin K
Sources	Tomatoes, citrus fruits	Liver, eggs	Milk, Meat

(fig. 12)

24) In (fig. 13), a blurred view is obtained through a paper when a little amount of oil or grease is applied because the paper becomes_____.

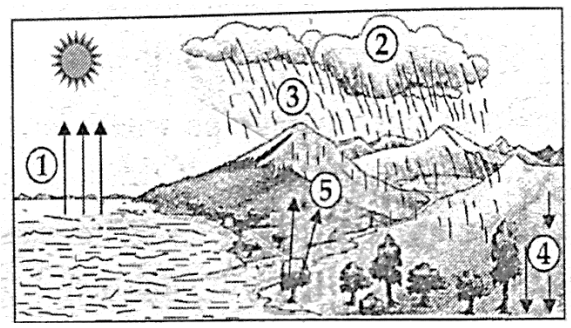
a) clear b) transparent
c) translucent d) opaque



(fig. 13)

25) Refer the given (fig. 14) of water cycle.
Identify the processes 1-5 and select the correct statement regarding them.

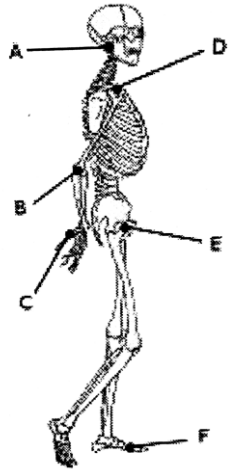
a) Increase in process 4 leads to increase in chances of flood.
b) Increase in process 5 leads to decrease in process 3.
c) Processes 2 and 3 decrease with the decrease in process 1.
d) None of these.



(fig. 14)

26) Refer to the diagram in (fig. 15) and select the correct option.

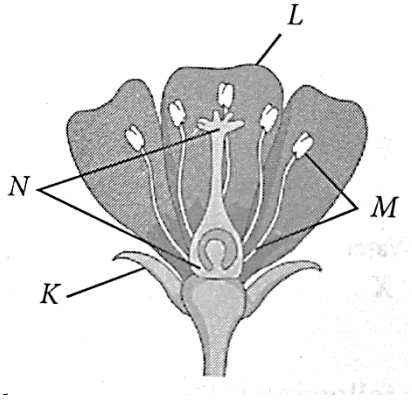
a) A – Pivot joint, B – Hinge joint, D – Ball and socket joint
b) A – Ball and socket joint, C –Hinge joint, E – Pivot joint
c) B – Hinge joint, D – Ball and socket joint, F – Pivot joint
d) C – Saddle joint, E – Pivot joint, F – Ball and socket joint



(fig. 15)

27) Refer to the given (fig. 16) of longitudinal section of a flower.
Identify labelled parts K-N and select the incorrect statement regarding them.

a) K is the outermost whorl which protects the floral parts in bud conditions.
b) L could be brightly coloured to attract insects for pollination.
c) M part form the innermost whorl of flower and has a long slender stalk i.e., anther and knob like structureon the top i.e., filament.
d) N is the female reproductive part of flower consisting of an ovary, style and stigma.



(fig. 16)

28) A chemical change produces a new substance whereas a physical change does not produce a new substance. Which of the following pair of changes are irreversible?
M: Stretching a rubber band
N : Burning of matchstick
O : Germination of seed
P : Dissolving sugar in water

a) M and O b) O and P c) N and O d) M and P

29) When a solid directly gets converted into vapors this process is known as

a) Fusion b) Sublimation c) Evaporation d) Sedimentation

30) The solid substance left behind on the filter paper in the process of filtration is called as

a) Filtrate b) Solution c) Residue d) Supernatant liquid

31) Match the following.

A	Earthworm	i)	Loops in the body
B	Fish	ii)	Single muscular foot
C	Snail	iii)	Rings in the body
D	Snake	vi)	Fins

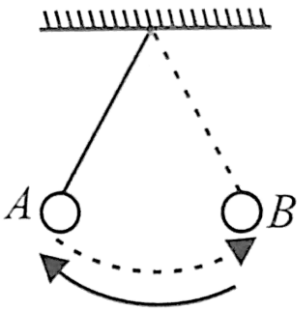
	A	**B**	**C**	**D**
a)	i)	ii)	iii)	iv)
b)	ii)	iii)	iv)	i)
c)	iii)	iv)	ii)	i)
d)	iii)	iv)	i)	ii)

32) Length – wise threads in weaving are called _____.

a) Warp b) filling threads c) bobbins d) silvers

33) In (fig. 17) A pendulum takes 0.8 seconds to swim from the extreme points A to B. What will be the time taken for the pendulum to make 20 oscillations?

a) 12 seconds
b) 24 seconds
c) 32 seconds
d) 48 seconds



(fig. 17)

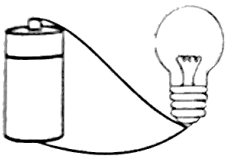
34) Changes occurring in the (fig. 18) are _____

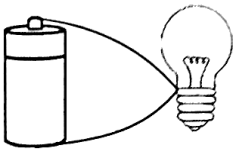
a) Permanent , permanent
b) Permanent , reversible
c) Reversible , reversible
d) Reversible , permanent

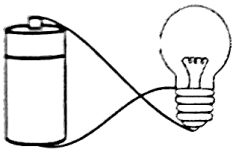


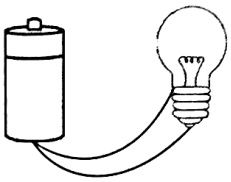
(fig. 18)

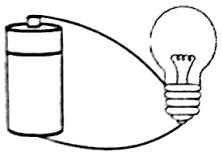
35) In which of the following cases the bulb(s) will glow?

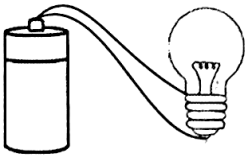
I) 

II) 

III) 

IV) 

V) 

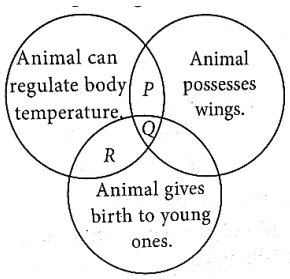
VI) 

a) I, IV, VI only b) II, IV, V only c) V only d) III, V only

36) Emma inflated a balloon and kept it out in the sun. After some time, what will happen to be the balloon?

a) Its size will decrease because the air in it compresses on heating.
b) Its size will increase because the air in it compresses on heating.
c) Its size will increase because the air in it expands on heating.
d) Its size will decrease because the air in it expands on heating

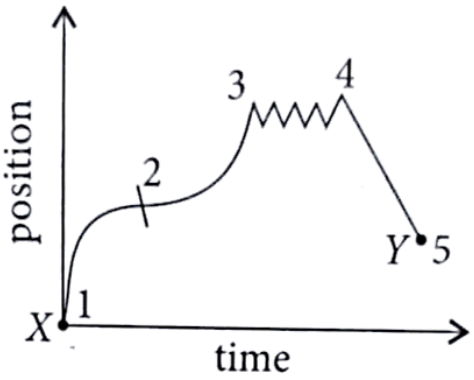
37) Refer to the given Venn diagram (fig. 19) and select the correct statement regarding P, Q and R



(fig. 19)

a) P could be a bird that migrates to warmer regions during winters.
b) Q possesses hair whereas R possesses feathers.
c) P breathes through gills whereas Q and R breathe through lungs.
d) R could be an arctic bird that aestivates during summers.

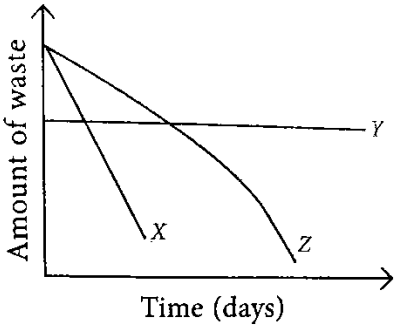
38) The given (fig. 20) shows the motion of an object over a period of time between two position X and Y. Which of the following correctly lists the type of motion between various positions?



(fig. 20)

	1→2	2→3	3→4	4→5
a)	curvilinear motion	circular motion	periodic motion	uniform motion
b)	curvilinear motion	curvilinear motion	periodic motion	rectilinear motion
c)	circular motion	curvilinear motion	non-uniform motion	uniform motion
d)	circular motion	circular motion	uniform motion	rectilinear motion

39) Waste materials X, Y and Z were buried under the soil.
The given (fig. 21) shows the amount of waste left after a certain period of time.
Select the correct option regarding this.



(fig. 21)

a) X could be fruit and vegetable peels whereas Y could be metallic frame.
b) Y could be organic waste whereas Z could be cotton shirt.
c) X could be plastic bags whereas Z could be newspaper.
d) All of these

40) Read the following statements choose the correct option.
Statement 1 : A horseshoe magnet attracts more iron filings at the U-shaped part than at the ends.
Statement 2 : Magnetic strength of horseshoe magnet is high at the U-shaped part.
a) Both statements 1 and 2 are true and statement 2 is the correct explanation of statement 1
b) Both statements 1 and 2 are true but statement 2 is not correct explanation of statement 1
c) Statement 1 is true and statement 2 is false.
d) Both statement 1 and 2 are false.

SECTION – C
ENGLISH

Read the poem carefully and answer the questions that follow.

Great, wide, beautiful, wonderful world,
With the wonderful water round you curled,
And the wonderful grass upon your breast-
World, you are beautifully drest.
The wonderful air is over me,
And the wonderful wind is shaking the tree,
It walks on the water, and whirls the mills,
And talks to itself on the tops of the hills.
You friendly Earth! How far do you go,
With the wheat-fields that nod and the
rivers that flow,
With cities and gardens and cliffs, and isles,
And people upon you for thousands of miles?
Ah, you are so great, and I am so small,
I tremble to think of you, World, a tall;
And yet, when I said my prayers to-day,
A whisper inside me seemed to say,
"You are more than the Earth, though you are such a dot:
You can love and think, and the Earth cannot!"

41) The poet calls the earth
   a) unfriendly b) friendly c) proud d) kind

42) The phrase 'beautifully drest' in the poem refers to
   a) wearing costly dresses b) having shiny dresses
   c) wearing cheap but beautiful dresses d) decorated with nature's beauty

43) Which of the following is the correct meaning of the word 'Cliff'?
   a) A low area of rock b) A high grassland
   c) A high area of rock with a very steep side, often at the edge of the sea or a river
   d) A low grassland

44) Whom does the wind in the poem talk to?
   a) itself b) clouds c) passerby d) birds

45) From the poem we come to know that the poet is _____ when he thinks about earth.
   a) fearless b) fearful c) proud d) forgetful

WORD AND STRUCTURE KNOWLEDGE

46) Choose the correct passive voice of the following sentence.
   People consider that she is honest.
   a) It is considered by the people that she is honest.
   b) It was considered by the people that she is honest.
   c) It has been considered that she is honest.
   d) It is considered that she is honest.

47) Choose the correct antonym of the underlined word in the following sentences.
   There are no permanent <u>adversaries</u> in politics.
   a) associates b) allies c) collaborators d) partners

48) Choose the correct indirect speech from the options given below for the following sentence.
The guard said, " you must not enter the area as it has not been sanitized."

a) The guard warned us not enter the area as it had been sanitized.
b) The guard warned us not entering the area as it had not been sanitized.
c) The guard warned us not to enter the area as it had not been sanitized.
d) The guard warns us not to enter the area as it had not been sanitized.

49) Which of the following sentences has the correct use of tenses?

a) When I am a boy, I walked a mile to school every day.
b) When I were a boy, I walked a mile to school every day.
c) When I was a boy, I walked a mile to school every day.
d) When I was a boy, I walks a mile to school every day.

50) Choose the correct meaning of the underlined idioms in the given sentence.
Natasha <u>broke down</u> in the middle of her speech.

a) could not proceed b) fell down c) became angry d) cried

51) Identify the error of adjective in the given sentence along with its correction from the given options.
There are numeric problems in the farmers' laws.

a) numeric→numerical b) farmers'→farmers
c) numeric→numerous d) farmers'→farmer

52) Match the following.

List – I		**List – II**	
A.	No article	1.	X - Ray
B.	The	2.	Museum
C.	A	3.	Eiffel Tower
D.	An	4.	France

	A	**B**	**C**	**D**
a)	4	3	1	2
c)	3	1	2	4

	A	**B**	**C**	**D**
b)	2	3	4	1
d)	4	3	2	1

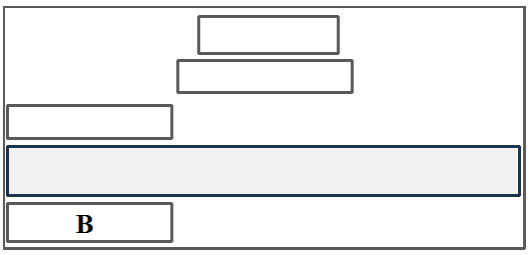
53) Match the following.

List – I (Words)		**List – II** (Synonyms)	
A.	Feud	1.	Disturb
B.	Agitate	2.	Clash
C.	Soothe	3.	Sudden
D.	Abrupt	4.	Calm

	A	**B**	**C**	**D**
a)	2	1	3	4
c)	2	1	4	3

	A	**B**	**C**	**D**
b)	1	3	2	4
d)	4	3	2	1

54) A notice is given below (fig. 22) one part is missing, but substituted by letter B. Identify the correct option from the given below.



(fig. 22)

The item identified as 'B' is_____.

a) Name of the organisation
b) Name of the issure of the notice
c) Subject of the notice
d) Designation of the issuer of the notice

55) Identify the predicate in the following sentence.
She locked the door and went out to play.

a) locked the door
b) locked the door and
c) locked the door and went out to play
d) went out to play

56) Choose the sentence with the correct use of conjunction.

a) There are seats outside and some people don't like sitting outdoors.
b) There are seats outside but some people don't like sitting outdoors.
c) There are seats outside so some people don't like sitting outdoors.
d) There are seats outside if some people don't like sitting outdoors.

57) Choose the best response for the following.
Your friend meets with an accident.You decide to write a note for her. How will you start it?

a) Hey! What's up?
b) Sorry to hear that you have met with an accident.
c) Didn't I warn you to drive safely?
d) How come you met with an accident?

58) Choose the option that shows the correct punctuation and capitalisation for the underlined words.
" This is the last time I will cook <u>my meal" Pinaki</u> said.

a) my meal", Pinaki
b) my meal', Pinaki
c) my meal, Pinaki
d) my meal"

59) Fill in the blanks with suitable connectors.
It was a very cloudy and windy day _____**(1)**, we went sailing on the sea. We took our wind-breaker jackets _____ **(2)** the weather was chilly.

(1) a) Consequently b) Even though c) In spite of d) Nevertheless
(2) a) even though b) despite c) since d) due to

60) Choose the correct meaning of the underlined idioms /phrases in the following sentence.
Passing the Olympiad is not <u>a piece of cake</u> .

a) easy b) difficult c) good d) bad

SECTION – D
APTITUDE

61) Pointing out to a lady, Rohit said, "She is the daughter of a woman who is the mother of the husband of my mother". How is the lady related to Rohit?

a) aunt b) grand daughter c) daughter d) sister

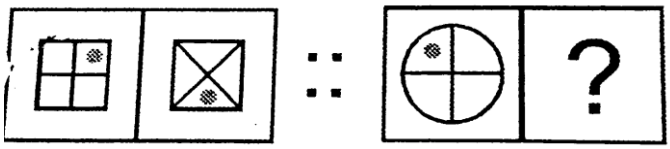
62) In an examination, a student attempted 23 questions and secured 45 marks. If for every correct answer, 3 marks were awarded and for every wrong answer, 1 mark was deducted, then how many of his answers were wrong?

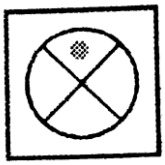
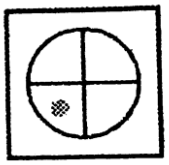
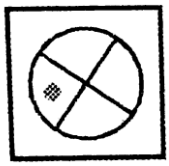
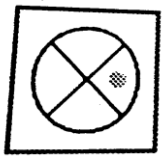
a) 4 b) 6 c) 3 d) 9

63)

8	**9**	**3**
17	**14**	**8**
225	**?**	**55**

a) 20 b) 27 c) 21 d) 32

64) 

a)  b)  c)  d) 

65) If English alphabets are written in reverse order what will be 7th letter to the right of 12th letter from the left?

a) F b) H c) S d) R

66) If 40 + 10 = 30, 18 + 8 = 10 then 60 + 60 = _____

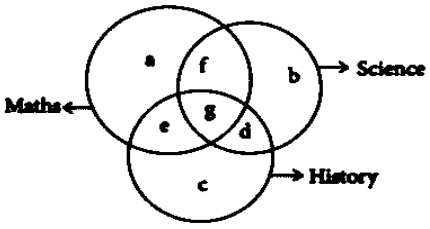
a) 120 b) 3600 c) 0 d) 90

67) In the following (fig. 23), three subjects opted by student of a class are represented by three different circles. Write the answer for the following question

The area which represents the students who selected math and science only, not history is

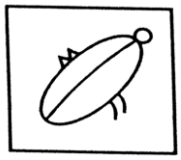
a) f b) g

c) both f and g d) d

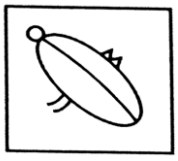
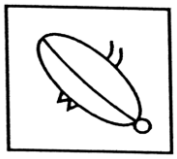
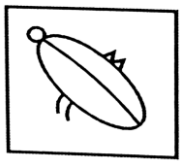
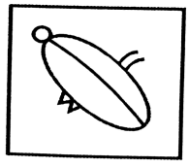


(fig. 23)

68) In each of the following questions, choose the correct water image of the given (fig. 24).



(fig. 24)

a)  b)  c)  d) 

69) Arrange the following words as per order in the dictionary.

1) Ambitious 2) Ambiguous 3) Ambiguity 4) Animation 5) Animals

a) 3, 2, 4, 1, 5 b) 3, 2, 5, 4,1 c) 3, 2, 1, 5, 4 d) 3, 2, 4, 5, 1

70) In a collage, 200 students are randomly selected. 140 like tea. 120 like coffee and 80 like both tea and coffee. How many liked only coffee?

a) 140 b) 120 c) 80 d) 40

71) What should come in the place of (?) in the given below.

MNOABCPQRDEFST??

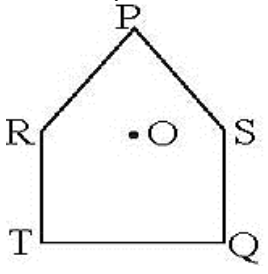
a) GK b) UG c) GH d) UV

72) P, Q, R, S and T are five friends sitting around a pentagonal park facing O as per shown in (fig. 25).

If P and T interchange their positions S, Q and R interchange their positions then which of the following true?

a) R is to the left of P b) Q is second to the right of R

c) T is second to the left of P d) S is to the right of T



(fig. 25)

73) If P means '$\times$', R means '+', T means '÷' and S means '–', what is the value of 18 T 3 P 9 S 8 R 6?

a) 46 b) 52 c) $\frac{2}{3}$ d) $-1\frac{1}{3}$

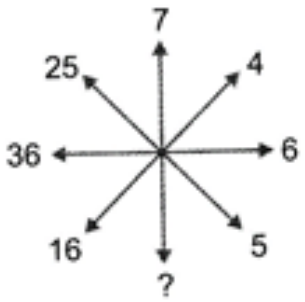
74) In a certain code, TELEPHONE is written as ENOHPELET. How is ALI GATOR written in that code?

a) ROTAGILA b) ROTAGAIL c) ROTAGILE d) ROTEGILA

75) In (fig. 26) which number will replace the question mark in the following?

a) 14 b) 49

c) 21 d) 7



(fig. 26)