IMPORTANT INSTRUCTIONS

- The maximum marks are 300. Time allotted is **90 MINUTES.**
- There are five sections in the question paper having total **75 questions:**
  - Section – A : Maths (20 Questions)
  - Section – B : Science (20 Questions)
  - Section – C : English (15 Questions)
  - Section – D : Aptitude (10 Questions)
  - Section – E : General Knowledge (10 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) The greatest five-digit number using the digits 7, 8 and 0 is _____.

a) 78000 b) 87000 c) 87770 d) 88870

2) A person has ₹ 49,684 with him. He wants to purchase 42 radio sets at ₹ 1225 each. How much money will he need more for the purchase?

a) ₹ 1676 b) ₹ 1766 c) ₹ 1667 d) ₹ 1776

3) The sum of two prime numbers is 39. What is the product of these numbers?

a) 15 b) 72 c) 74 d) 63

4) Moni needs to pack pencil boxes in a wooden box to carry to his school. If 50 of such pencil boxes weight 1 kg 250 g, then how many such pencil boxes can come in a wooden box which has the capacity of 800g?

a) 40 b) 38 c) 34 d) 32

5) If $\frac{a}{b} = 0$, then which of the following is true?

a) $a = 0$ b) $b = 0$

c) Either $a = 0$ *or* $b = 0$ d) Neither $a = 0$ *nor* $b = 0$

6) Which of the following statements are true?

I. Zero has no successor.

II. There is no whole number possible between two consecutive whole numbers.

a) I is true b) II is true

c) I and II both are true d) Neither I nor II are true

7) A is the smallest three digit number which leaves a remainder 2 when divided by 17. B is the smallest three digit number which leaves remainder 7 when divided by 12. Then, A + B is _____.

a) 312 b) 219 c) 205 d) 207

8) Sum of two integers is – 35. If one of them is 15, then other one is _____.

a) + 20 b) -20 c) -50 d) + 50

9) Simplify and choose the correct option, $2 - [\{ 1 + (4 - 7) - 8 \} - 9]$

a) 20 b) -19 c) -23 d) 21

10) Match the Column A with Column B.

	Column A		**Column B**
I.	$-\frac{5}{3} - \frac{1}{3}$	(i)	$1\frac{1}{18}$
II.	$1\frac{2}{9} - \frac{1}{6}$	(ii)	$5\frac{2}{3}$
III.	$\frac{17}{3}$	(iii)	-2
IV.	$9\frac{3}{7} + 4\frac{2}{7}$	(iv)	$13\frac{5}{7}$

Codes :

	I	**II**	**III**	**IV**		**I**	**II**	**III**	**IV**
a)	(ii)	(iv)	(i)	(iii)	b)	(i)	(ii)	(iii)	(iv)
c)	(iii)	(i)	(ii)	(iv)	d)	(iv)	(ii)	(i)	(iii)

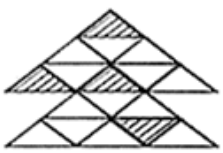
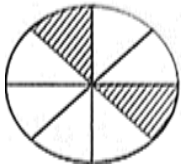
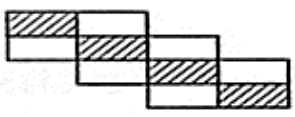
11) If the weight of 5 packets of sugar is $155\frac{1}{5}$ *g*, $146\frac{1}{3}$ g, $161\frac{1}{2}$ g, $150\frac{1}{4}$ g and $148\frac{1}{6}$ g, then find

(i) The total weights of all the packets.

(ii) The difference between the weights of the heaviest packet and the lightest packet.

	(i)	**(ii)**		**I**	**II**
a)	$\frac{15229}{20}$g	$\frac{19}{16}$g	b)	$\frac{15229}{20}$ g	$\frac{91}{6}$ g
c)	$\frac{25389}{20}$ g	$\frac{991}{6}$ g	d)	$\frac{25389}{20}$ g	$\frac{911}{6}$ g

12) Which of the figure has a shaded part equal to 0.25?

a)  b)  c)  d) None of these

13) What will be the value of

$$\frac{(8.5 + 7.8 \times 6.5 \div 1.3 - 1)}{(7.5 \times 1.6 + 7.5 \times 0.4)}$$

a) 4.2 b) 3.1 c) 9.86 d) 6.75

14) If 0.090909 is approximately equal to $\frac{1}{11}$, then approximate value of 0.454545 is equal to

a) $\frac{4}{11}$ b) $\frac{5}{11}$ c) $\frac{45}{11}$ d) $\frac{4.5}{11}$

15) The school starts at 7.30 am and gets over at 1.00 pm. If there are two breaks of 15 min and 25 min respectively, then find the ratio of the break time to the total time the students spend at school.

a) 22 : 3 b) 3 : 22 c) 4 : 33 d) 33 : 4

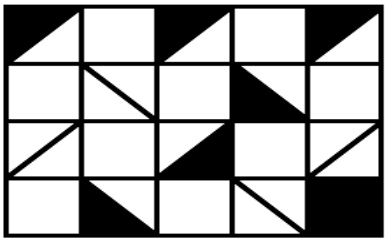
16) Fourth proportional to 3, 5, 18 is _____.

a) 15 b) 30 c) 27 d) 35

17) In (fig. 1) find the ratio of shaded part to the unshaded part.

a) $\frac{4}{12}$ b) $\frac{1}{4}$

c) $\frac{5}{16}$ d) None of the above



(fig. 1)

18) How many degrees are there in $2\frac{1}{3}$ right angles?

a) 360° b) 210° c) 150° d) 108°

19) Match the Column I with Column II.

	Column I (Measurement of Triangles)		**Column II (Types of Traingles)**
A.	Triangles which has three sides of length	p	Scalene
B.	Triangles which has two sides of equal length.	q	Equilateral
C.	Triangle which has one right angle with two sides of equal length.	r	Isosceles
D.	Triangle which has all sides are of different length.	s	Isosceles right angled

Codes :

a) A $\rightarrow (r), B \rightarrow (p), C \rightarrow (s), (D) \rightarrow (q)$ b) A $\rightarrow (p), B \rightarrow (r), C \rightarrow (q), (D) \rightarrow (s)$

c) A $\rightarrow (q), B \rightarrow (s), C \rightarrow (r), (D) \rightarrow (p)$ d) A $\rightarrow (q), B \rightarrow (r), C \rightarrow (s), (D) \rightarrow (p)$

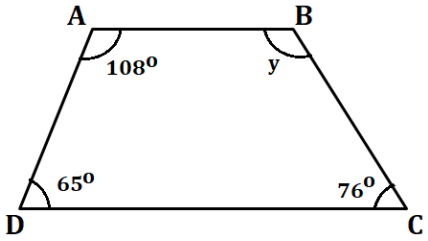
20) In the (fig. 2) find the value of y.

a) 249°

b) 150°

c) 200°

d) 111°



(fig. 2)

SECTION – B
SCIENCE

21) Which fruit is rich in fat, high fibre and vitamin – C?

a) Avocado b) Apricot c) Plum d) Lime

22) Manish was having difficulty is seeing things in dim light. The doctor tested his eyesight and prescribed a particular vitamin supplement. He also advised him to include a few food items like carrot, papaya, mango, milk and fish oil in his diet.

Which component of food, Manish lacks and from which disease he is suffering?

a) Vitamin D – Rickets b) Vitamin A – Night blindness

c) Vitamin B – Night blindness d) Vitamin B_1 – Beri-beri

23) Which of the following does not require a medium for propagation?

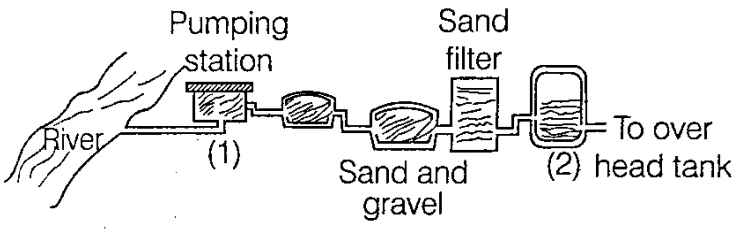
a) Sound waves b) Light waves c) Water waves d) Seismic waves

24) Which pair of substances among the following would float in a tumbler half-filled with water?

a) Cotton thread, thermocol
b) Feather, plastic ball
c) Pin, oil drops
d) Rubber band, coin

25) Following (fig. 3) shows the process of purification of river water. Which process is occurring at (1) and (2)?

a) Sedimentation and filtration
b) Filration and chlorination
c) Filtration and sterilisation
d) Sedimentation and chlorination

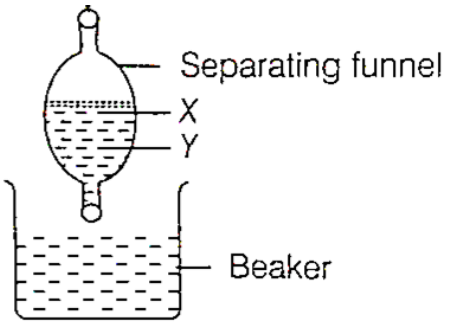


(fig. 3)

26) Oil + Water $\xrightarrow{Separating\ funnel}$ Stirring for sometime.

What would be the observation of given separation technique in (fig. 4)?

a) Two distinct layers are formed, in which X is of oil and Y is of water
b) Two distinct layers are formed, in which X is of water and Y is of oil.
c) X and Y are miscible to some extent, so no distinct layers are formed in this experiment,
d) X and Y mixed to form a homogeneous solution



(fig. 4)

27) Following are some modifications of leaves to perform special functions. Choose the incorrect statement.

a) In pea plant upper leaflets are modified into tendrils.
b) Tendrils coil around objects to give support to plant.
c) In cactus leaves are modified into spines to enhance the loss of water from the leaves.
d) Spines protect the plants from being eaten away by grazing animals.

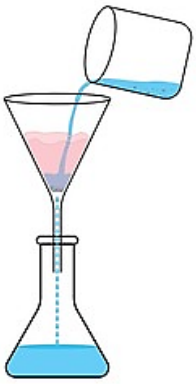
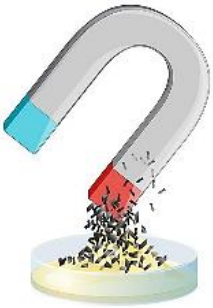
28) Consider the statements given below and choose the option that correctly declares them as True (T) or False (F).

I. The place where bones meet are called joints.
II. Snails move with the help of a lubricant.
III. The body of cockroach has a hard covering forming an outer skeleton.
IV. Cartilages are harder than bones.
V. The movement and locomotion of all animals is exactly the same.

Codes :

	I	**II**	**III**	**IV**	**V**
a)	T	F	T	T	T
b)	T	T	F	T	T
c)	T	T	F	T	T
d)	T	T	T	F	F

29) Match each mixture (given in Column I) to the apparatus (given in Column II) which may be used to separate the components of the mixture.

	Column I		**Column II**
A.	Alcohol and water	1.	
B.	Sand and water	2.	
C.	Salt and water	3.	
D.	Iron filing and sand	4	

Codes :

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

30) Which of the following is an example of rotational motion?

a) Motion of a car on a straight path.

b) Motion of a car along a circular track.

c) Motion of Earth on its axis.

d) None of these.

31) **Statement I:** The length of a curved line can be measured by using a thread and a scale.

Statement II: A measuring tape is used to measure the length of a curved line.

Choose the correct option.

a) Only statement I is correct.
b) Only statement II is correct.
c) Both statements are correct.
d) Both statements are incorrect.

32) Sita moves on a straight road from point A to point C. She takes 20 min to cover a certain distance AB and 30 min to cover the rest of distance BC. She, then turns back and takes 30 min to cover the distance CB and 20 min to cover the rest of the distance to her starting point. She makes 4 rounds on the road of the same way. Sita concludes that her motion is

a) rectilinear motion only
b) periodic motion only
c) rectilinear and periodic motion
d) Neither rectilinear nor periodic

33) Match the Column I with Column II.

	Column I		**Column II**
A.	Yard	1.	Motion of a swing
B.	Rest	2.	Motion of a top
C.	Least count	3.	State of stationary objects
D.	Periodic motion	4	Non-standard unit of length
E.	Rotational motion	5.	Minimum amount that can be measured by a device

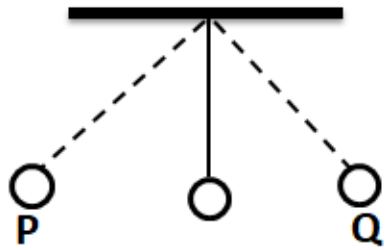
Codes :

	A	**B**	**C**	**D**	**E**		**A**	**B**	**C**	**D**	**E**
a)	3	5	4	1	2	b)	4	3	5	1	2
c)	1	2	5	4	3	d)	3	1	2	4	5

34) In (fig. 5) the bob of a simple pendulum is swinging between points P and Q. It takes 18.2 s to swing forty times from P to Q and back to P

What is the time-period of the pendulum?

a) 0.45 s
b) 1.45 s
c) 1.40 s
d) 0.52 s



(fig. 5)

35) When a person passes under a leafy tree during a sunny day, he observes some bright circular patches of light on the ground under the tree. These patches are

a) shadows of Sun
b) images of Sun
c) pinhole images of Sun
d) Sun

36) **Statement I** : Reflection can be observed both in case of opaque as well as translucent.

Statement II : Image formed by plane mirror are always virtual.

Choose the correct option.

a) Only statement I is correct.
b) Only statement II is correct.
c) Both statements are correct.
d) Both statements are incorrect.

37) I. Bouncing back of ray of light from shining surface on which it was incident is known as__.

II. The objects which partially allow the light to pass through it are called _____.

III. _____ shadow is called penumbra.

IV. Shadows gives us the information, regarding the _____ of the object.

Codes :

	I	II	III	IV
a)	reflection	translucent	partial	shape
b)	reflection	opaque	complete	size
c)	dispersion	translucent	partial	size
d)	reflection	translucent	complete	shape

38) Read the following statements and mark the option that correctly states them as True (T) or False (F).

I. The proportion of CO_2 in air is greater in cities than in rural areas.

II. The air becomes thicker with altitude.

III. Windmill uses the power of air to generate electricity.

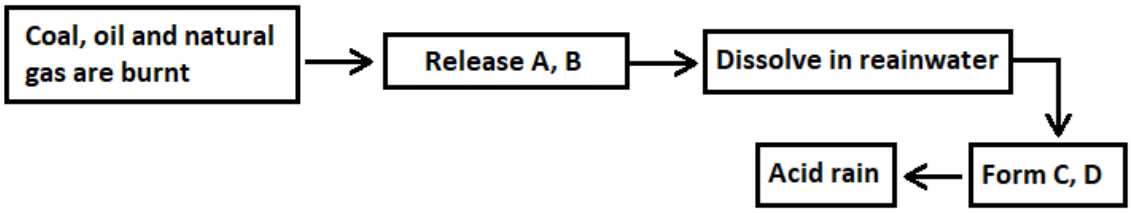
IV. Dust is essential for cloud formation

V. Lower the temperature, lower will be solubility of air in water.

Codes :

	I	**II**	**III**	**IV**	**V**		**I**	**II**	**III**	**IV**	**V**
a)	T	T	T	F	T	b)	F	T	F	F	F
c)	T	T	T	F	F	d)	T	F	T	T	F

39)



(fig. 6)

Above chain of events shows in (fig. 6) the formation of acid rain. Identify A, B, C and D components to complete the chain.

	A	**B**	**C**	**D**
a)	Sulphur dioxide	Nitrogen	Sulphuric acid	Nitric acid
b)	Sulphur	Nitrogen oxide	Sulphuric acid	Ammonia
c)	Carbon monoxide	Sulphur dioxide	Sulphuric acid	CFCs
d)	Sulphur dioxide	Nitrogen oxide	Sulphuric acid	Nitric acid

40) Animals have different adaptations that enable their body movements. Given below is a list of some adaptations. Read them carefully and choose the option that shows the correct adaptation of respective animal.

I. Forelimbs modified into wings – Birds.

II. Moves with 4 legs – Cockroach.

III. Circular and longitudinal muscles – Earthworm.

IV. Two large disc-shaped muscular foot – Snail.

Codes :

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

SECTION – C
ENGLISH

Read the text and answer the questions that follows.

Britain's bees are under threat after a family accidentally brought a non-native specimen home in their holiday luggage, experts have warned. When Ashley Toy, 49, spotted an unusual petal cocoon on the living room sofa, he had no idea that it had been left by a stowaway that had travelled back from his family's summer break in Turkey.

He threw the nest away but the next morning, his daughter Amelia, 19, spotted an unusualbee outside their home in Bristol. She did some research and learned the type of bee, osmia avosetta, is only found in Turkey and Iran. The family had come back from Turkey only a week ago. They contacted the British Beekeepers Association which then alerted the environmental authority Defra and the National Bee Unit. A spokesman warned the rare bee could have a 'devastating effect' on native mason bees, adding: 'Non-native species like this bee pose several problems and need to be controlled.

Yearly, May 18th marks Endangered Species Day, created to raise awareness, engage conservationists, and ultimately advocate for the protection of thousands of the world's species facing extinction. The last decade has marked a dramatic increase in the risks facing species from rhinos to bees. In 2016, the animal trafficking market grew to an estimated $23 billion. Many researchers have called the additional loss of animal life to habitat change, pollution, climate change, and other factors to a 'global epidemic'.

Meanwhile, the bee is happily constructing numerous beautiful cocoons in the family's conservatory 1,800 miles from home. Ever since finding the Turkish insect, the family has opened the back door every morning and watched in awe as the insect flies in and out with petals from their hydrangea, creating intricate nests.

The Bumblebee Conservation Trust said it was not aware of osmia avosetta ever being seen in the UK before and advised that it could be illegal to release a non-native species into the wild. Miss Toy said: "I guess if Defra are involved it must be a pretty big deal. They haven't advised me to capture it yet. It's there now, flying in and out with the petals. I'm completely baffled."

The National Bee Unit has contacted the family and is working out what to do next.

41) Choose the best title or heading for the passage.
   a) Happy Bee Day b) Turkish Delight c) English Invader d) Travelling Pests

42) Where was the bee cocoon found?
   a) In a suitcase b) On the sofa
   c) In a flower bed d) Near the house

43) Why is it a worry for the beekeeping association?
   a) It could make a different type of honey.
   b) The bees will have no others to live with.
   c) The new bee may kill native species.
   d) The bee will fly back to Turkey with British bees.

44) The Turkish Bee is thriving in
   a) the hot UK temperature b) the family greenhouse
   c) a new hive they bought for it d) a laboratory in the south of England

45) What is 'osmia avosetta' in the text?
   a) Bee b) Place c) Family d) Disease

WORD AND STRUCTURE KNOWLEDGE

From questions 46) to 48) Choose the best option to complete the sentence.

46) If (someone) is sent away from a country or place as an official punishment, he is _____.

a) entertained b) included c) incorporated d) banished

47) The competition will be at 2 p.m. We should _____ our lunch by then

a) be finished b) have to finish

c) have finished d) have been finishing

48) Her happiness knew no limits when she got to know that she _____ by the literary society of the college for her recent article on 'Women Empowerment'.

a) has acknowledged b) was acknowledging

c) was acknowledged d) is acknowledged

49) Select the sentences with the correct punctuation marks.

a) What exactly I asked, "happened to him?"

b) "What" exactly I asked, "happened to him?"

c) "What exactly," I asked, "happened to him?

d) "What exactly," I asked, "happened to him?

50) Choose the option that expresses indirect speech of the given sentence correctly.
She said, "Good morning, Sir Thomas."

a) She ordered Sir Thomas, good morning.

b) She suggested Sir Thomas, good morning.

c) She greeted Sir Thomas, Good morning.

d) She scolded Sir Thomas, Good morning.

51) Choose the best option to complete the sentence.
One of _____ common traits of teenagers these days is their boisterous attitude towards everything, which is _____ equally disturbing and disheartening.

a) a, an b) an, no article c) the, no article d) no article, the

52) Choose the correct antonym of the word "Stringent".

a) Vehement b) General c) Covetous d) Lenient

53) Choose the correct adjectival phrase from the given options.
The emperor was wearing a crown_____.

a) gold-made b) made of gold c) golden d) golden-made

54) Choose the correct option to complete the conversation.
Mehdi : Shanu always throws his weight around and bullies others.
Karina : Don't pay attention to him He's just a _____.

a) big fish in a small lake b) big fish in a wide sea

c) big fish in a small pond d) big fish in the wider ocean

55) I would like to _____ your attention to the second paragraph of my letter _____ to the terms of sales of machinery.

a) react, mainly b) focus, connecting

c) draw, pertaining d) invite, according

SECTION – D
APTITUDE

56) In a certain language 'A1*02' is written as '5XPQM' and '02CL' is written as 'QM79'. How is '*1A' written in that code?

a) PP5 b) XP5 c) PX5 d) QM9

57) A rat runs 30 m towards East, turns right and runs 20 m. He turns right and runs 8 m. He again turns left and runs 6 m and then turns left and runs 15 m. Finally he turns left and runs 7 m. Now, in which direction is the rat facing?

a) North b) North-East c) East d) West

58) Find the group of letters which is different from others.

a) ABC b) ACD c) BCF d) CDG

59) If 'white' is called 'blue' is called 'red', 'red' is called 'yellow', 'yellow' is called' 'green', 'green' is called 'black', 'black', is called 'violet' and 'violet' is called 'orange', then what would be the colour of human blood?

a) Red b) Green c) Yellow d) Violet

60) If the English alphabet is written in backward order, then which letter will be 5^{th} to the left of letter M?

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

61) Study the following information carefully and answer the following question.

i) A, B, C, D, E, F, G and H are eight students, each having a different height.

ii) D is shorter than A but taller than G.

iii) E is taller than H but shorter than C.

iv) B is shorter than D but taller than F.

v) C is shorter than G.

vi) G is not as tall as F.

a) G is shorter than F. b) C is shorter than F.

c) F is taller than C d) none of these

62) If '–' denotes addition, '+' denotes subtraction, '×' denotes division and '÷' denotes multiplication, then $7 - 10 \times 5 \div 6 + 4 = ?$

a) 3 b) 12 c) 15 d) 9

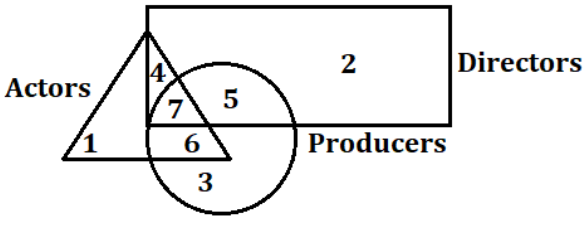
63) What comes next in the series given below?
4, 8, 24, 48, 144, 288 ?

a) 576 b) 864 c) 432 d) 648

64) Study the given (fig. 7) and answer the following question.
How many actors are both directors and producers?

a) 7 b) 4 + 5 + 6

c) 6 d) 5



(fig. 7)

65) In a row of boys facing North, A is sixteenth form the left end and C is sixteenth from the right end. B, who is fourth to the right of A, is fifth to the left of C in the row. How may boys are there in the row.

a) 39 b) 40 c) 41 d) 42

SECTION – E
GENERAL KNOWLEDGE

66) When was the Battle of Plassey fought?
a) 1857 b) 1757 c) 1761 d) 1859

67) When is World Health Day observed?
a) 22 April b) 30 April c) 3 April d) 7 April

68) Ozone layers lies in _____
a) Stratosphere b) Troposphere c) Hemisphere d) Exosphere

69) What is the capital city of Australia?
a) Sydney b) Melbourne c) Canberra d) Perth

70) Which of the following is used in pencils?
a) Silicon b) Charcoal c) Graphite d) Phosphorous

71) India's longest river bridge will be constructed on river Brahmaputra (around 19 km long), connecting _____ & _____
a) Assam and Arunachal Pradesh b) Assam and Tripura
c) Assam and West Bengal d) Assam and Meghalaya

72) Which Indian Hockey player won the FIH Player of the Year for 2024?
a) Sukhjeet Singh b) Harmanpreet Singh
c) Shamsher Singh d) Akashdeep Singh

73) Which country has launched the European Space Agency's Proba-3 mission?
a) India b) China c) USA d) Russia

74) How many medals were won by India at the 2024 Paris Paralympics?
a) 15 b) 20 c) 25 d) 29

75) Recently, where was the "4th Akhil Bharatiya Rajbhasha Sammelan" organized?
a) Chennai b) Jaipur c) New Delhi d) Bhopal