राष्ट्रीय डिज़ाइन संस्थान
NATIONAL INSTITUTE OF DESIGN

# *B.Des./GDPD 2017*
# *DAT Prelims*
# *Test Paper*
# *Part-1*

# PART-I

**Questions 1 to 75 are multiple choice questions. The correct answer must be marked in the OMR answer sheet provided separately. Do not write your name anywhere in the booklet. This may lead to disqualification.**

**Directions: Question numbers 1 to 26 carry 0.5 marks each. Read the questions carefully and select your response from the options provided.**

Q1. Which colour of a flame represents the highest temperature?
(A) Blood Red
(B) Deep Blue
(C) Golden Yellow
(D) White

Q2. Which one of the following is this image associated with?
(A) Unified Sequential Buffer
(B) Universal Serial Buffer
(C) Universal Serial Bus
(D) Unicode Sequential Bus



Q3. Which of the following is not yet a UNESCO World Heritage Site in India?
(A) Great Living Chola Temples, Tanjavur, Tamil Nadu
(B) Sunderban National Park, West Bengal
(C) River Island of Majuli, Midstream of Brahmaputra, Assam
(D) Virupaksha Temple, Hampi, Karnataka

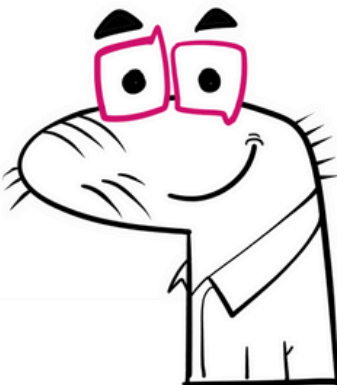
Q4. What would be the best choice for a window to keep the outside heat away?
(A) Single-pane glass.
(B) Double-pane glass without a gap in between.
(C) Double-pane glass with water filled in between.
(D) Double-pane glass with air in between.

Q5. Identify the organization which uses the given symbol.
(A) Panda Rescue Initiative
(B) Forest Research Institute
(C) World Wide Fund for Nature
(D) People for Ethical Treatment of Animals



Q6. Which of the following is the correct breathing pattern?
(A) As you breathe in, the chest expands first and then the stomach.
(B) As you breathe in, the stomach seems to expand first and then the chest.
(C) Only the chest expands.
(D) Only the stomach expands.

Q7. Which Indian state is referred to as the "Spice Garden of India"?
(A) Karnataka
(B) Kerala
(C) Uttar Pradesh
(D) Rajasthan

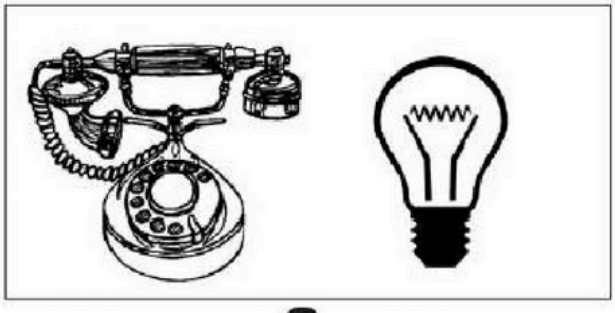


Q8. The grey area marked in the given map of India is the river basin of an important river of the country.
Identify the river.
(A) Krishna River
(B) Tapi River
(C) Godavari River
(D) Mahanadi River

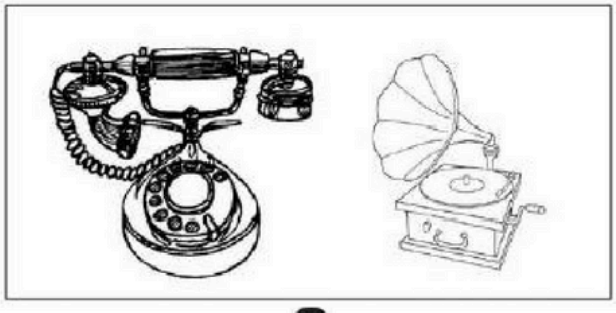


Q9. Which is the correct arrangement of the names of Governors of the RBI from 2016, in chronologically reverse order.
1. Raghuram Rajan 2. Y V Reddy 3. Urjit R Patel 4. D Subbarao 5. Bimal Jalan
(A) 3, 1, 4, 2, 5
(B) 3, 1, 2, 4, 5
(C) 3, 1, 5, 4, 2
(D) 3, 1, 5, 2, 4

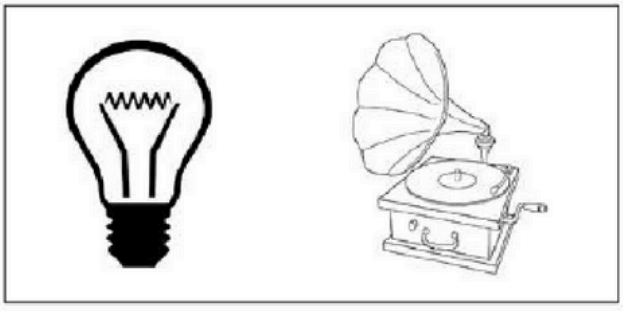
Q10. Which of the following pairs of devices had the same inventor?



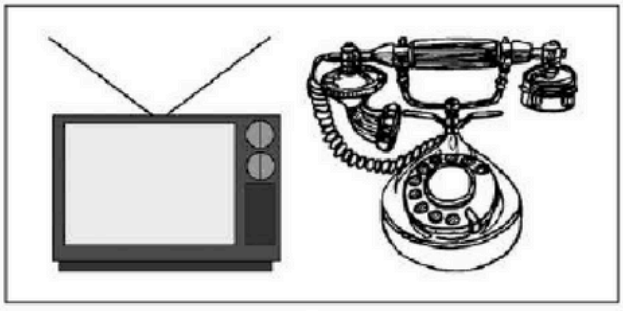
A



B



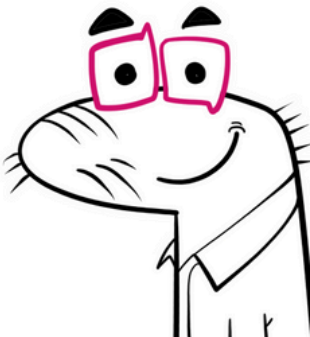
C



D

Q11. Which is the only planet in the Solar System that is not named after any mythological God?
(A) Venus
(B) Earth
(C) Jupiter
(D) Mercury

Q12. Telangana is the youngest state in the Republic of India and was established on 2nd June 2014. Which of the following was the youngest state in India before that?
(A) Chattisgarh
(B) Uttarakhand
(C) Jharkhand
(D) Arunachal Pradesh



Q13. The component "Ferrule" is associated with which of the following objects?

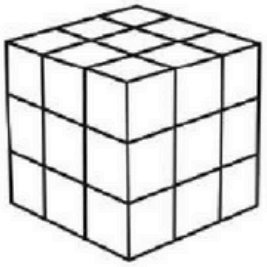
(A) Eraser
(B) Brush
(C) Paper
(D) Board clip

Q14. Which of the following is an Indian Classical dance form of North India?

(A) Kathak
(B) Kathakali
(C) Kuchipudi
(D) Bharatnatyam

Q15. How many cubes can you identify in the given image?

(A) 1
(B) 27
(C) 32
(D) 36



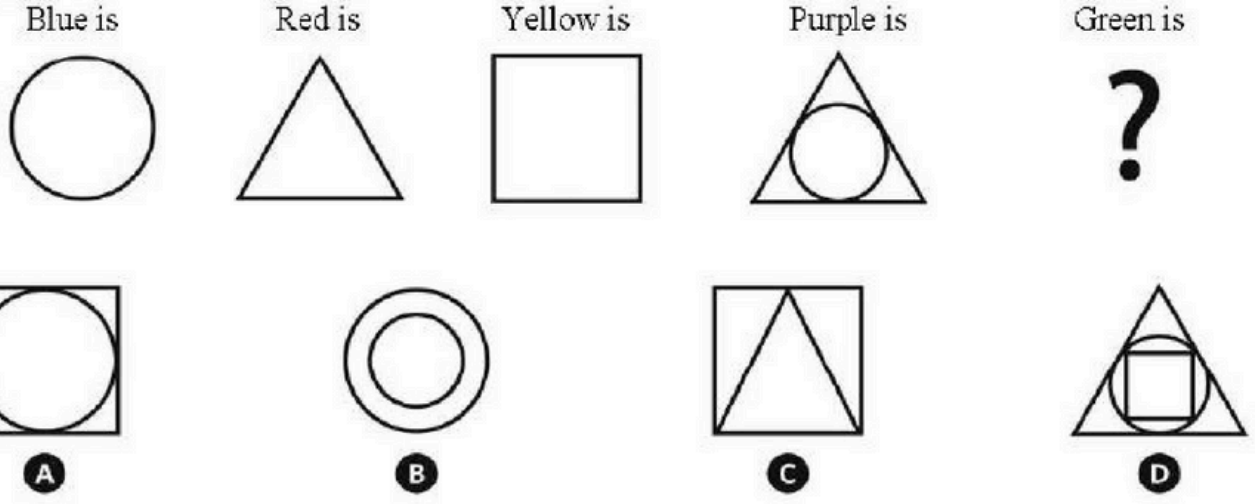
Q16. Who is the first Indian woman to win an Olympic Medal?

(A) Saina Nehwal
(B) MC Mary Kom
(C) Karnam Malleshwari
(D) Sakshi Malik

Q17. Albert Einstein was awarded the Nobel Prize in 1921 for

(A) The equation $E = MC^2$
(B) The Photoelectric Effect
(C) The Special Theory of Relativity
(D) Quantum Mechanics

Q18. If

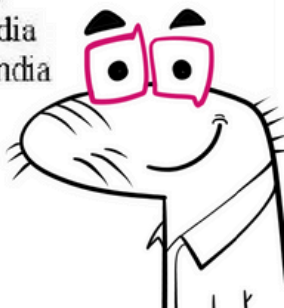



Q19. The leaves of plants are green in colour due to the presence of .....

(A) Chloride.
(B) Chlorophyll.
(C) Hydrocarbon.
(D) Sulphide.

Q20. Identify the set of countries where Tamil is recognized as an official language.

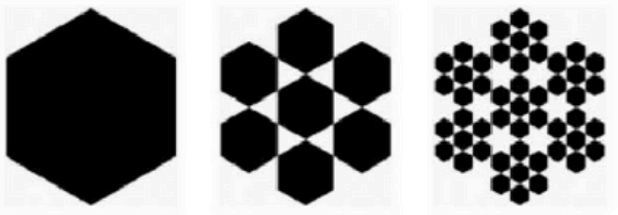
(A) India, Sri Lanka and Mauritius
(B) Mauritius, Malaysia and India
(C) India, Malaysia and Indonesia
(D) Singapore, Sri Lanka and India



Q21. What is the fourth element in the sequence: 2j, 4g, 6d, ____?

(A) 4f
(B) 8a
(C) 10g
(D) 8f

Q22. Which is true for the figures shown, moving from left to right? ('Area' and 'Perimeter' refer to the total area and perimeter of the black shapes in each figure)?



(A) Area increases and perimeter increases
(B) Area decreases and perimeter increases
(C) Area increases and Perimeter decreases
(D) Area decreases and Perimeter decreases

Q23. In an atom, which of the following is a particle which is positively charged?

(A) Neutron
(B) Electron
(C) Mitron
(D) Proton

Q24. ..... is the particle that gives mass to other particles. Two physicists won the Nobel Prize in Physics in 2013 for this discovery.

(A) Higgs Boson
(B) Bohr model
(C) Black body
(D) Big bang

Q25. Rita and Rahul are watching the sunset together. Rahul turns right and walks 100 meters, while Rita turns in the opposite direction and walks 100 meters. Then they both turn right and walk another 30 meters. Who is closer to the North at the end?

(A) Rahul
(B) Rita
(C) Both
(D) None

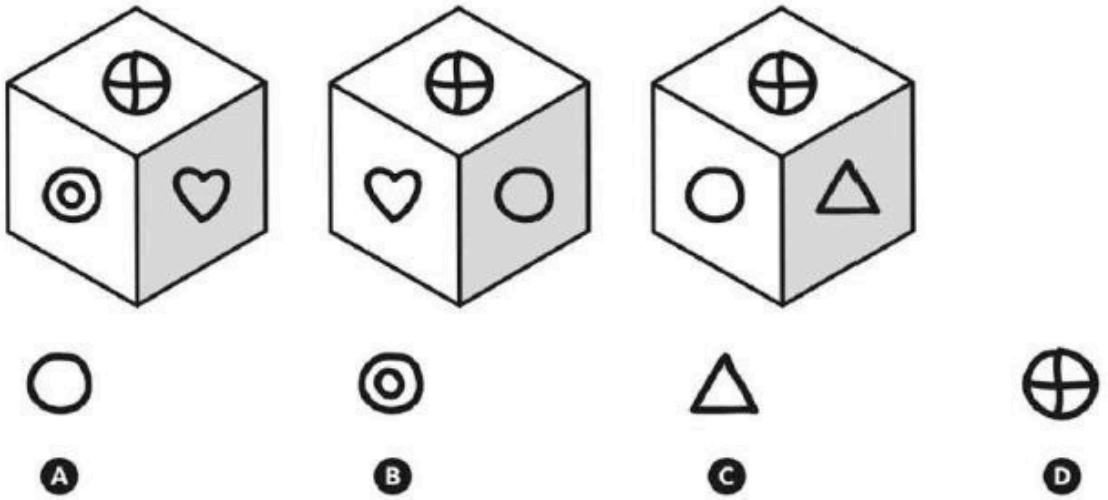
Q26. You are booking a ticket to travel by air from Trivandrum to Ahmedabad and the flight time is around sunrise. Which location would give you a view of the sunrise from your seat?

(A) A window seat on the right of the plane
(B) A window seat on the left of the plane
(C) A window seat in the front of the plane
(D) A window seat in the back of the plane



**Directions: Question numbers 27 to 63 carry 1.0 marks each. Read the questions carefully and select your response from the options provided.**

Q27. Three faces of the same cube are illustrated below. Which symbol lies on the face of the cube, behind the face with a heart shape?




Q28. *"You may shoot me with your words, You may cut me with your eyes, You may kill me with your hatefulness, But still, like air, I'll rise. Does my sexiness upset you? Does it come as a surprise that I dance like I've got diamonds at the meeting of my thighs? Out of the huts of history's shame I rise up from a past that's rooted in pain I rise I'm a black ocean, leaping and wide, welling and swelling I bear in the tide."*

In this passage, the author is talking about

(A) gender related violence.
(B) racial violence.
(C) racial and gender discrimination.
(D) racial discrimination.

Q29. What can you put in a wooden box that would make it lighter? The more of them you put in, the lighter it becomes, yet the box stays empty.

(A) Air
(B) Cotton
(C) Holes
(D) None of these

Q30. How many triangles, rectangles and circles can you identify in the image?

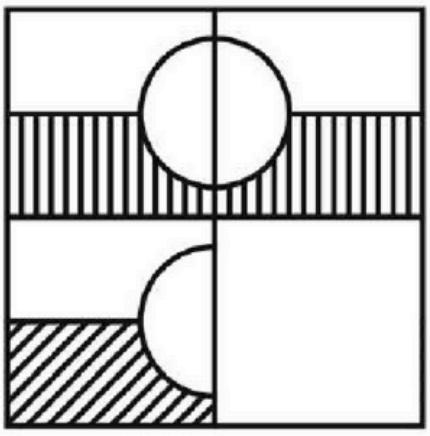
(A) 4 rectangles, 3 triangles and 1 circle
(B) 4 rectangles, 5 triangles and 2 circles
(C) 3 rectangles, 3 triangles and 2 circles
(D) 2 rectangles, 3 triangles and 2 circles

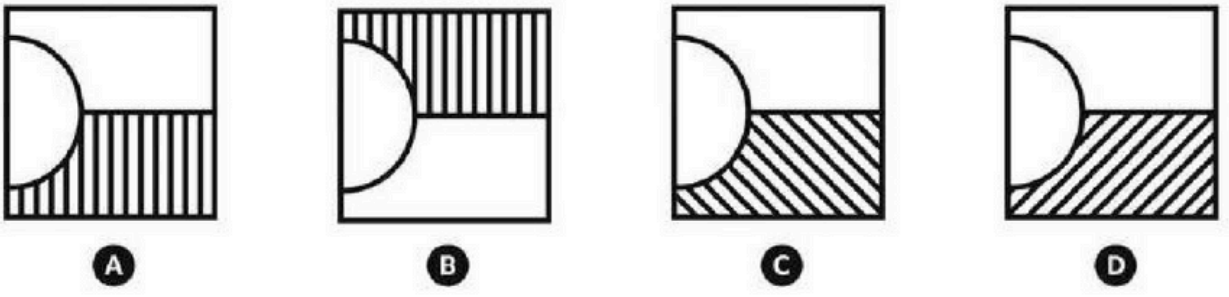


Q31. Mr. Rao is late to catch his flight. As he sat tensed in his cab which was zipping through the city traffic, he wished he had not fallen to the persuasion of his daughter, whose plea he could never refuse, for having lunch with her before he left.
Based on the above, his actions can be described as

(A) calculative.
(B) glutton.
(C) careless.
(D) caring.

Q32. Given below is a figure with one quadrant missing. Which of the options below will complete the figure?



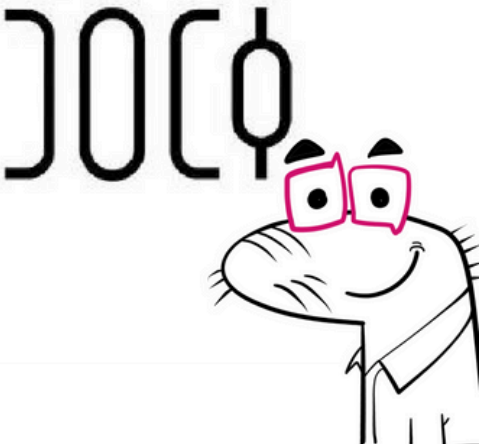



Q33. Meaning of this quote by Isaac Newton is close to which one of the following four options?
*"If I have seen further than others, it is by standing upon the shoulders of giants."*

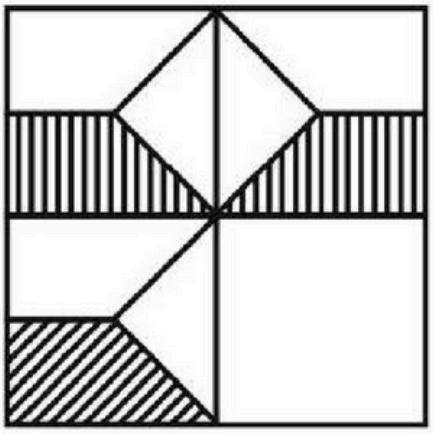
(A) Copying Giant's work leads to new knowledge
(B) New knowledge builds on existing knowledge
(C) Knowledge is self conscious
(D) None of these

Q34. Decipher the name of the month hidden in the image of the rebus below:

(A) June
(B) October
(C) July
(D) May



Q35. Given below is a figure with one quadrant missing. Which of the options below will complete the figure?

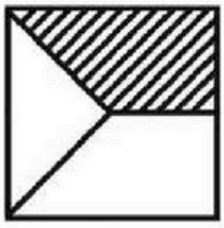




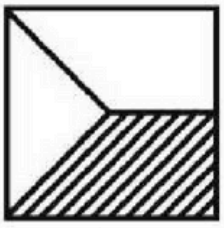
A



B

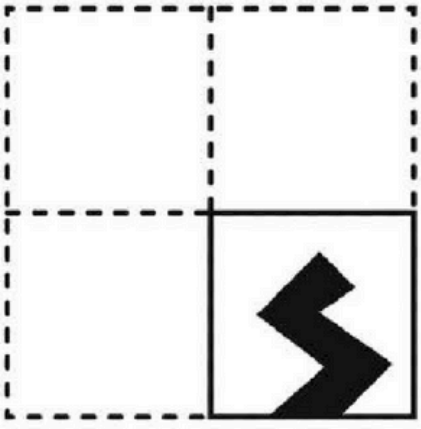


C



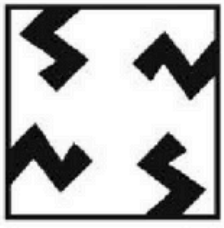
D

Q36. When a square piece of paper is folded twice and cut as shown below, which one of the given options indicates the correct figure when it is unfolded (opened).





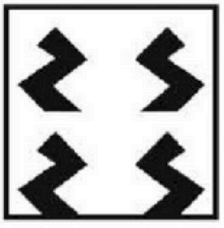
A



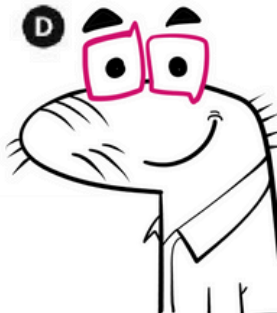
B



C



D



Q37. Fill in the blank space below to yield a true sentence. In this sentence there are neither more nor less than ..... three-letter words.

(A) five
(B) Four
(C) Two
(D) Three

**Directions: Read the paragraph carefully to answer question numbers 38 to 40.**

*"The superstorm that struck New York in 2012, Hurricane Sandy, was one such highly improbable phenomenon: the word unprecedented has perhaps never figured so often in the description of a weather event. In his fine study of Hurricane Sandy, the meteorologist Adam Sobel notes that the track of the storm, as it crashed into the east coast of the United States, was without precedent: never before had a hurricane veered sharply westward in the mid-Atlantic. In turning, it also merged with a winter storm, thereby becoming a 'mammoth hybrid' and attaining a size unprecedented in scientific memory. The storm surge that it unleashed reached a height that exceeded any in the region's recorded meteorological history.... "*

Q38. Amongst the statements below, related to the passage above, which combination of statements can be said to be the most incorrect?

1. Hurricane Sandy is the name of a very big winter storm that struck New York in 2012.
2. Adam Sobel does not remember of having heard of a hurricane as large as Sandy in his lifetime.
3. The use of the word unprecedented so often in describing a superstorm is unprecedented.
4. 'Mammoth hybrid' is another name for the superstorm that struck New York in 2012.
5. Hurricane Sandy unleashed waves of such heights that were unprecedented in the meteorological history of New York.
6. The probability for a hurricane to veer sharply westward in mid-Atlantic and hit the West coast of America is very low.

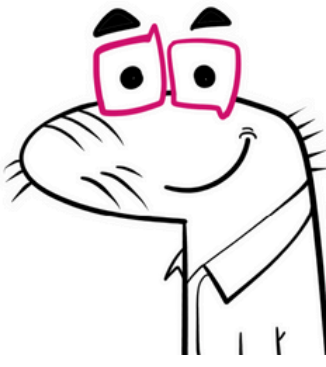
(A) Statements - 1, 2 and 4
(B) Statements - 3, 4 and 6
(C) Statements - 1, 4 and 6
(D) Statements - 1, 3, 4 and 6

Q39. The aspects of Hurricane Sandy that were unprecedented were:

(A) that it veered sharply westward from mid-Atlantic and crashed into the east coast of America and merged with a winter storm.
(B) the height of the storm surge that it unleashed.
(C) the formation of the 'mammoth hybrid' and attaining a size that has not been recorded before.
(D) the track of the storm, the merging with a winter storm, the size that it became and the height of the storm surges created.

Q40. The term 'mammoth hybrid' that has been used to describe Hurricane Sandy refers to the

(A) unprecedented size of the hurricane.
(B) combination of a hurricane with a winter storm.
(C) track of the storm – the way it veered sharply westward in mid-Atlantic and hit the East coast of America.
(D) size and the combination of hurricane with winter storm.

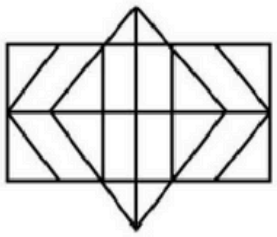


Q41. Ramprasad is Sudhir's grandfather. Nirmala is the aunt of Sudhir's father. Rekha is the daughter of Nirmala. What is the relationship between Rekha and Sudhir?

(A) Rekha is Sudhir's aunt
(B) Rekha is Sudhir's cousin
(C) Rekha is Sudhir's grandmother
(D) Rekha is Sudhir's mother

Q42. In the following figure, find the number of rectangles and hexagons respectively:

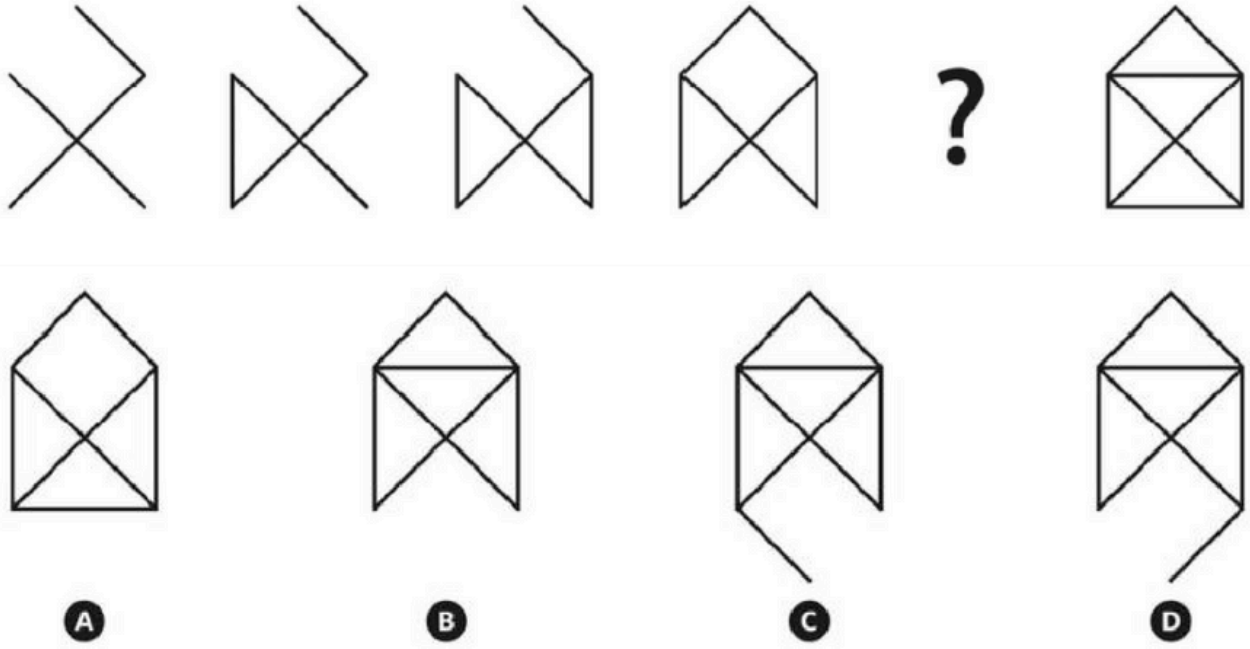
(A) 30, 5
(B) 32, 3
(C) 28, 5
(D) 30, 3



Q43. If the average of x, y, and z is 32 and the average of y and z is 27, what is the average of x and 2x?

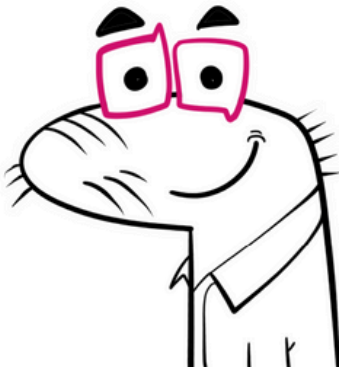
(A) 45
(B) 63
(C) 84
(D) 90

Q44. Identify the missing image in the pattern below:

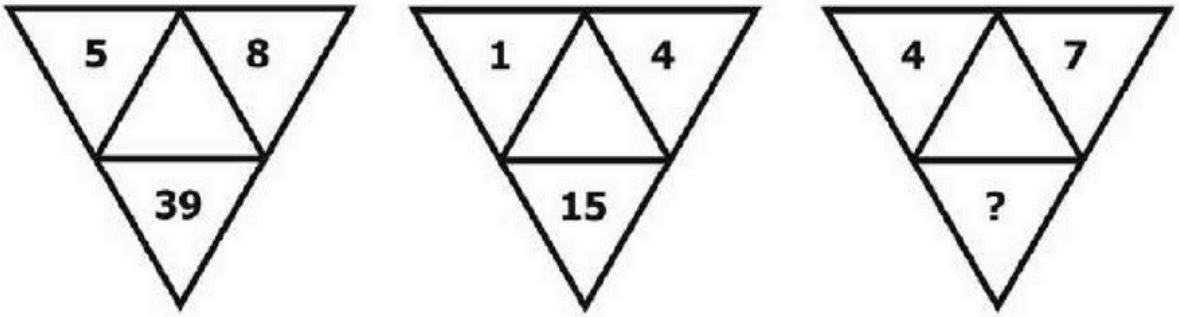



Q45. In a secret code, '762' means 'shoes are old', '248' means 'grandpa is old' and '573' means 'buy good shoes'. What stands for 'are' in this code?

(A) 2
(B) 4
(C) 6
(D) 8



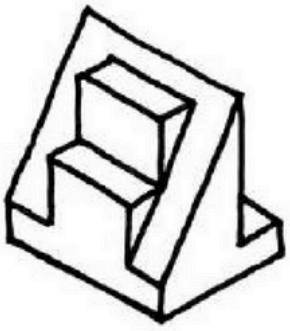
Q46. In the figure given below, which number will replace the question mark?



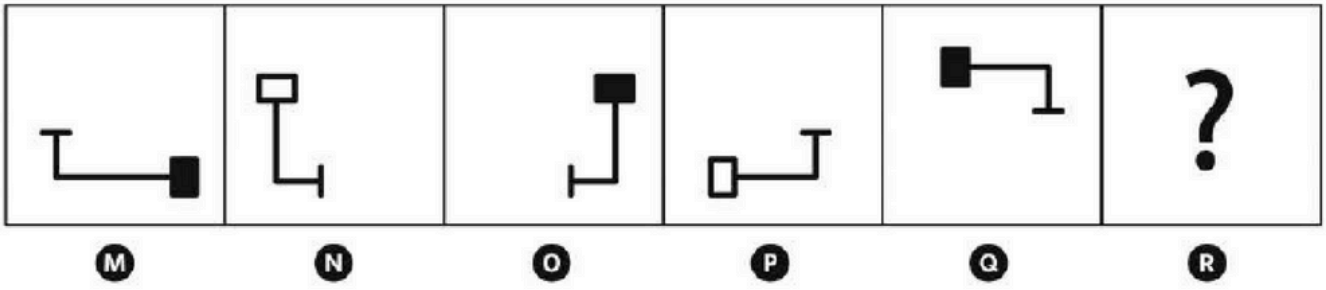

(A) 30
(B) 28
(C) 33
(D) 16

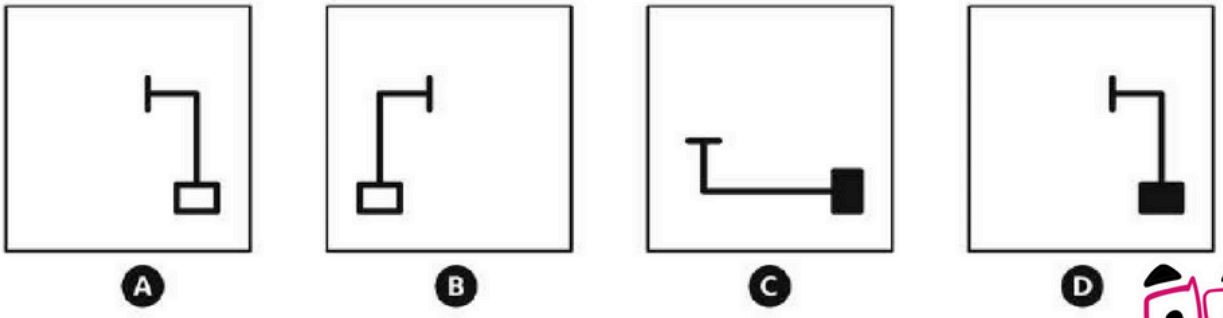
Q47. How many surfaces are there in the given three dimensional figure? The surface that is not visible in the figure is flat.

(A) 12
(B) 18
(C) 16
(D) 14



Q48. Which of the following symbols will replace the "?" to complete the series M – to – R.



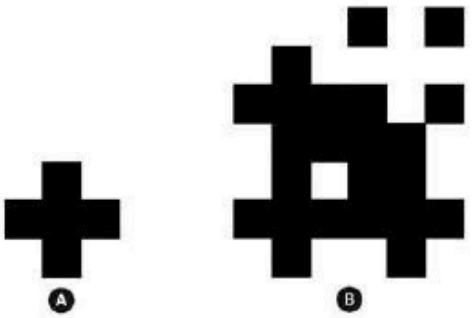
Q49. How can you add a sense of depth in the following image?

(A)By overlapping one bowl on another.
(B) By scaling down one bowl.
(C) By thickening the outline of one bowl.
(D) All these



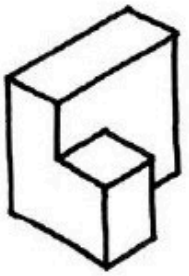
Q50. How many distinct shapes as shown in Fig A, can be found in Fig B?

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



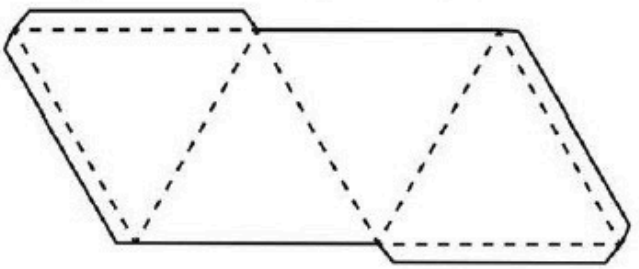

Q51. How many surfaces are there in the given three dimensional figure? The surface that is not visible in the figure is flat.

(A) 12
(B) 11
(C) 10
(D) 9



Q52. What geometric solid is formed when you fold along the lines of the given image?

(A) Pyramid
(B) Tetrus
(C) Tetrahedron
(D) Harmonica



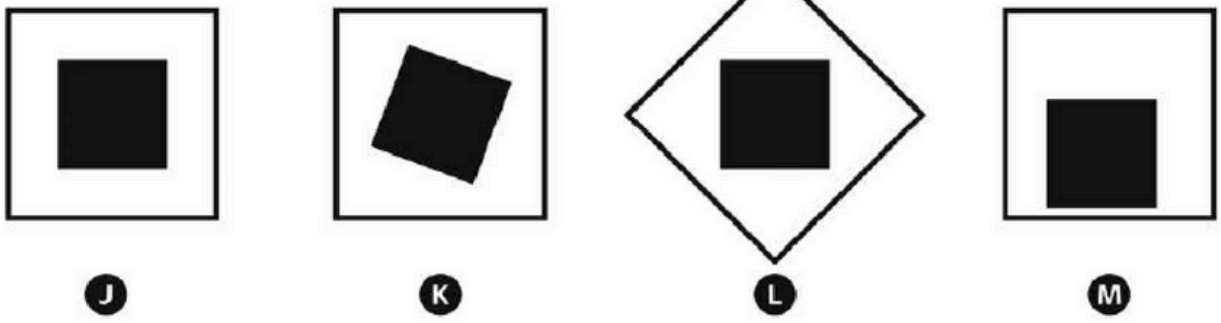
Q53. How can you give the viewer an idea about the relative size of the book in the following image?



(A) By adding shadow.
(B) By adding texture.
(C) By adding eye level and vanishing point.
(D) By adding a human figure appropriately in the image.

Q54. Make the appropriate matches between the words (from 1 to 4) and visuals (J to M).

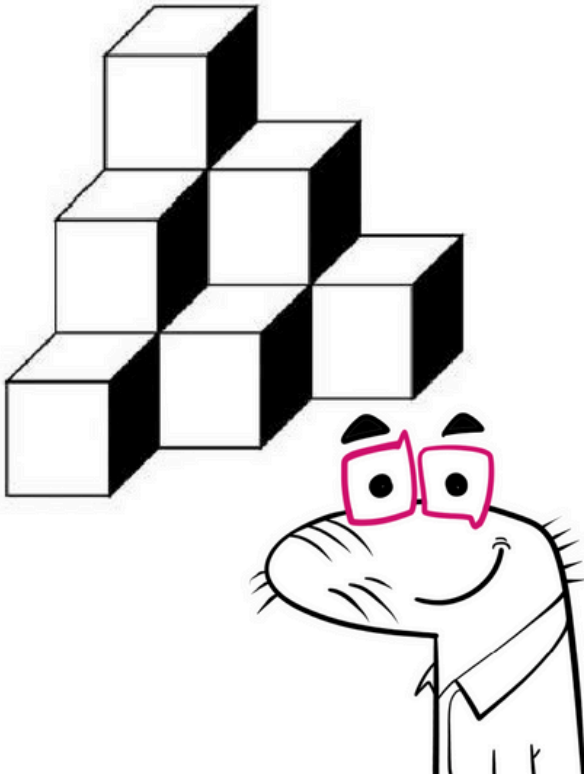
1. Movement
2. Conflict
3. Stability
4. Harmony



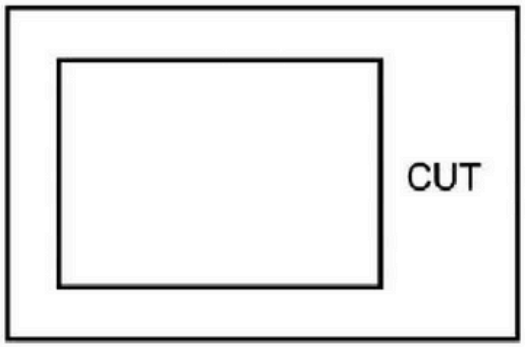

(A) 1-K, 2-J, 3-M, 4-L
(B) 1-L, 2-K, 3-J, 4-M
(C) 1-K, 2-L, 3-M, 4-J
(D) 1-M, 2-L, 3-J, 4-K

Q55. Count the number of cubes in the given image.

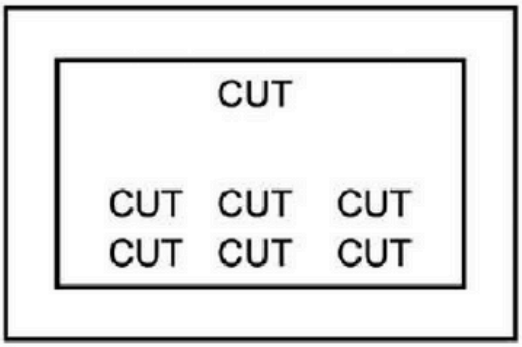
(A) 8
(B) 10
(C) 12
(D) 14



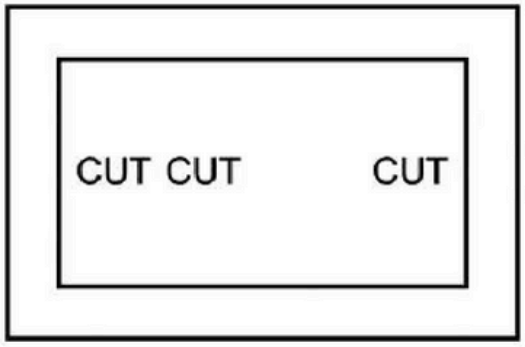
**Directions: Study the four images (P, Q, R and S) to answer questions 56 to 59.**



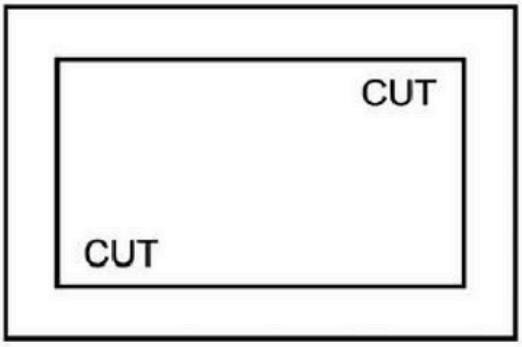

P




Q




R




S

Q56. For the phrase 'Cut to Cut' which of the corresponding images will be appropriate?

(A) P (B) Q

(C) R (D) S

Q57. For the phrase 'Cut it Out' which of the corresponding images will be appropriate?

(A) P (B) Q

(C) R (D) S

Q58. For the phrase 'Cut above the Rest' which of the corresponding images will be appropriate?

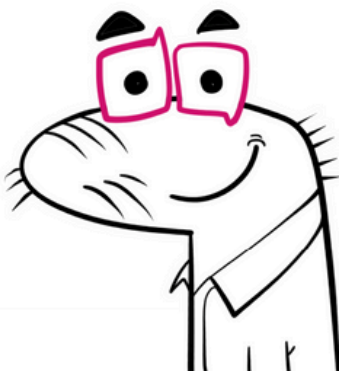
(A) P (B) Q

(C) R (D) S

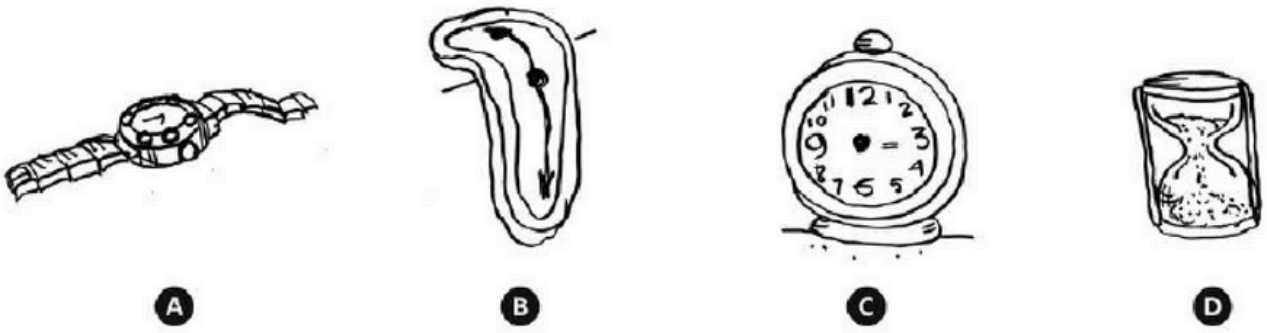
Q59. For the phrase 'Cut to the Chase' which of the corresponding images will be appropriate?

(A) P (B) Q

(C) R (D) S



**Directions: Study the images below to answer questions 60 to 63.**



A B C D

Q60. Which image represents "Times they are changing"?

Q61. Which image represents "Passage of Time"?

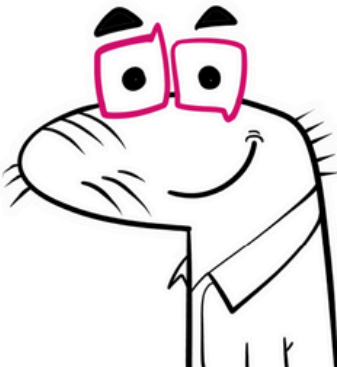
Q62. Which image represents "Time stands still"?

Q63. Which image represents "Time is money"?

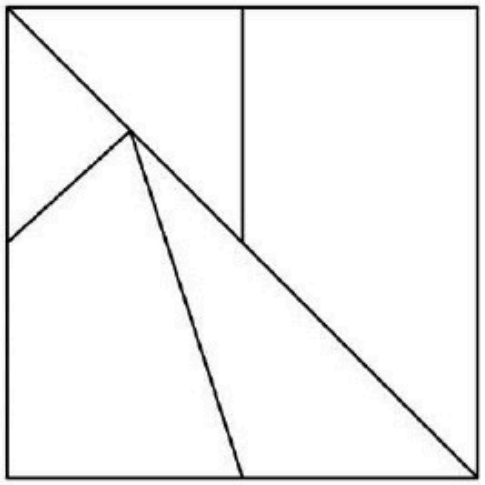
**Question numbers 64 to 71 carry 1.5 marks each.**

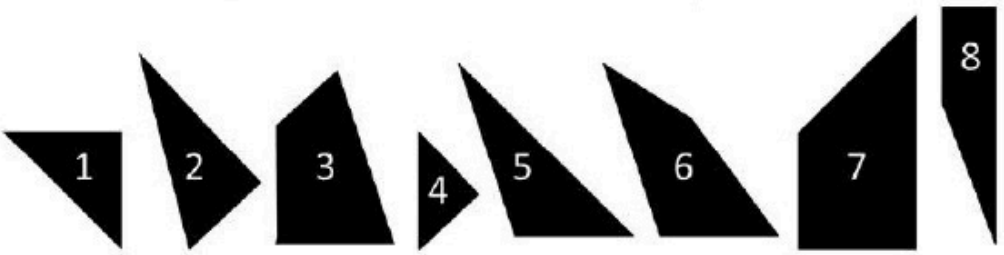
Q64. *"Banaskantha, an arid place, has a tradition of cattle breeders who lead a nomadic or semi nomadic lifestyle. Some groups lead their herds from place to place throughout the year, while others only leave their native village when there are no enough resources to ensure their productivity. The former migrate out of choice. The latter, and by far the most numerous, reluctantly migrate only when there is no other choice. Having little or no private land, poor cattle–breeders are largely dependent on communal land for grazing. Usually this land is relatively poor in quality and so less productive than most private lands. In an arid place, the grasses and fodder on the communal land do not last long. The dependence of a larger number of families on that land also adds to rapid deterioration. When the area is grazed out, the poorest villagers with cattle are forced to shift to places where vegetation is more readily available. Without ample food for their animals, milk production declines and the cattle breeders get less and less income. In more extreme cases, though not uncommon in a drought, because of the scarcity of food for the animals, the breeders risk not only a temporary decline, but also a permanent loss of income and assets."*

Why are the poor cattle breeders of Banaskantha forced to migrate?
(A) Nomadic tradition
(B) Early exhaustion of communal land resources
(C) No private land
(D) In search of better pastures



Q65. Choose the appropriate sequence of the numbered shapes which will complete the square illustrated below.






(A) 2, 4, 5, 7, 8 (B) 1, 3, 4, 5, 7 (C) 1, 3, 4, 6, 7, 8 (D) 3, 4, 5, 6, 7, 8

Q66. The difference between the age of the two brothers is the same as the difference in the age between their parents. The older brother is 14 years old. The mother was 30 years old when the younger brother was born. If the father is 4 years older than the mother, then what was his age when the elder brother was born?
(A) 26 (B) 28 (C) 30 (D) 34

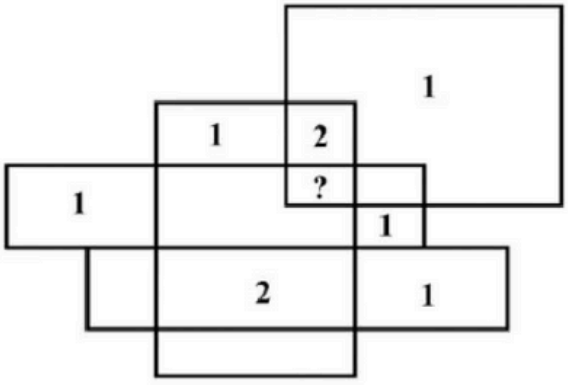
Q67. There are five friends – Mahesh, Krish, Ram, Sid and Baldev - who are standing besides each other in a straight line. Ram is standing to the right of Sid. Mahesh and Krish are standing on either side of Ram. There are two persons in between Krish and Baldev. Who is standing on the extreme left?
(A) Sid (B) Krish (C) Mahesh (D) Baldev

Q68. Today 8$^{th}$ January 2017 is a Sunday.
Statement (1): 8th March 2017 is a Wednesday.
Statement (2): 8th July 2017 is a Saturday.

Choose the correct option from below:
(A) Statement (1) is True and Statement (2) is False
(B) Statement (1) is False and Statement (2) is True
(C) Statement (1) and Statement (2) both are False
(D) Statement (1) and Statement (2) both are True

Q69. Can you uncover the logic used to place each of the numbers below? If so, what number should be placed at the question mark?

(A) 1
(B) 2
(C) 3
(D) 4




Q70. A car can average 20 km per hour up a hill, and 60 km per hour down the same road. What is the average speed for the whole trip?

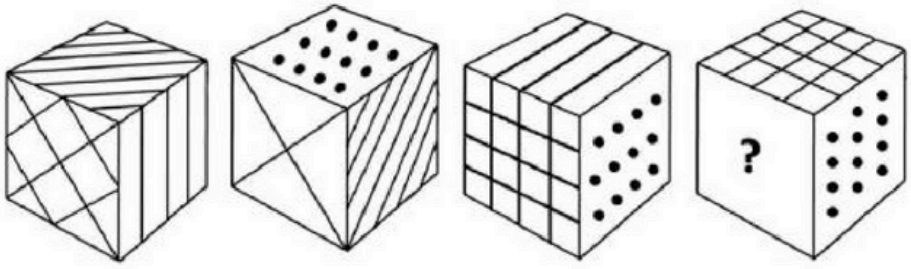
(A) 25 km per hour (B) 30 km per hour (C) 35 km per hour (D) 40 km per hour

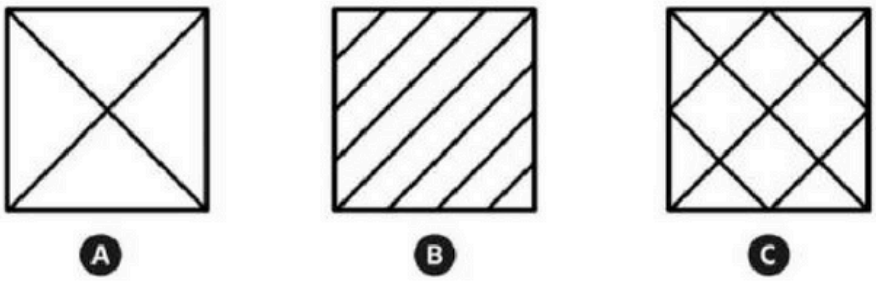
Q71. A four member team from Rang Sandesh is painting Mr. Ghosla's house. Mahesh is painting the front of the house. Ramesh is in the alley behind the house painting the back. Suresh is painting the window frames on the north side, Kamlesh is on the south. If Mahesh switches places with Suresh, and Suresh then switches places with Kamlesh, where is Kamlesh?

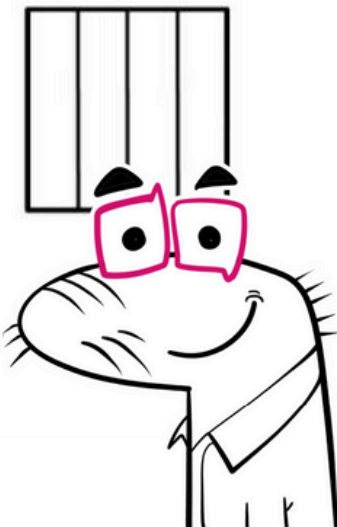
(A) In the alley behind the house
(B) On the north side of the house
(C) In front of the house
(D) On the south side of the house

**Directions: Question numbers 72 to 75 carry 2.0 marks each. Please read the questions carefully and select your response from the options provided.**

Q72. These are four views of the same cube. Each face of the cube has a different pattern. Which pattern should be on the blank face with a question mark?



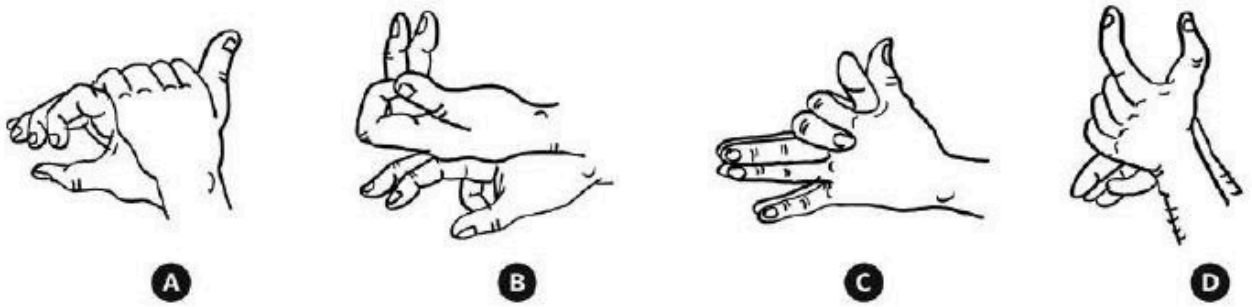
Q73. How can the statement be proven correct: XI+I=X?

(A) By turning the paper at 180 degrees.
(B) By viewing it in a mirror.
(C) It is not possible.
(D) All of the above are correct.

Q74. A wooden table is placed against a cardboard wall. You are given a red candle, a box of metal thumb pins, and a safety matchbox, and asked to affix the lit candle to the wall so that it will not drip wax onto the table below. Which of the following is the most efficient way to achieve the task?

(A) Empty the box of thumb pins, use the thumb pins to nail the box to the wall, put the candle into the box, and light the candle with the match.
(B) Pin the match box to the wall and put the candle on the box and light the candle with the match.
(C) Pin the candle to the wall without using the thumb pin box at an angle of 45 degrees and then light the candle with the match.
(D) Melt some of the candle's wax and use it as an adhesive to stick the candle to the wall at parallel to the wall surface and then light the candle.

Q75. Identify from the pose of hands depicted below, the shadows of the animal it may cast on the wall:

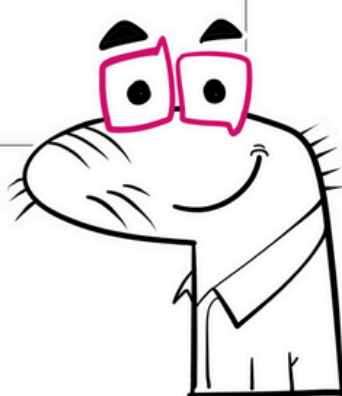



(A) Wolf, Rabbit, Fox, Bull
(B) Rabbit, Crow, Swan, Bull
(C) Wolf, Bat, Bull, Swan
(D) Crow, Swan, Fox, Bull

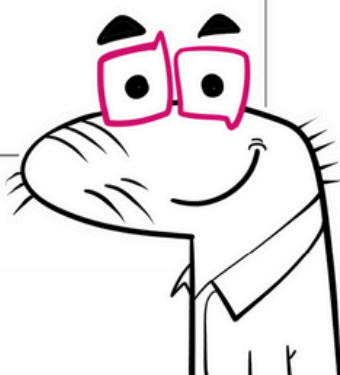
# B.Des./GDPD
# DAT Prelims
# Sample Test Paper
# Part-II

**Question numbers 76 to 77 carry 10 marks each.**

Q76. If there was zero gravity on earth, draw yourself in your living room along with the things you would like to anchor?

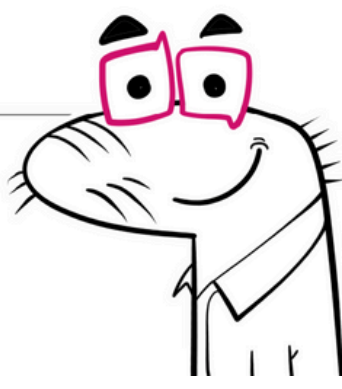


Q77. Create a poster advertisement to promote tourism as part of the 'Incredible India' campaign, using India's national flower, India's national tree, India's national bird and India's national animal, as they are (in terms of form and colour combinations). You can use either the full form or any part of them (texture, pattern, silhouette, etc.), any number of times and in any combination (once as a part, another time as a whole, etc.).

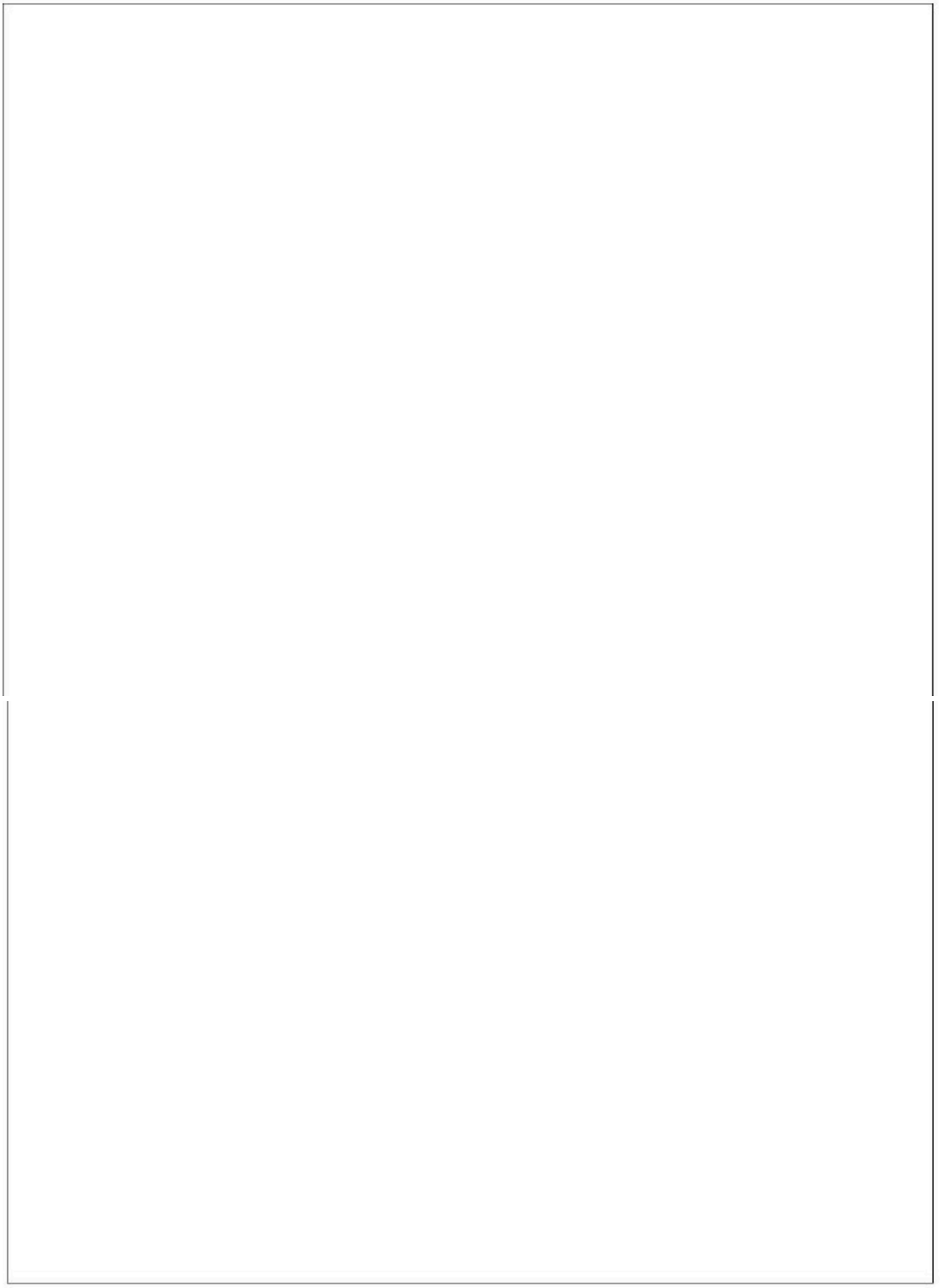


**Question numbers 78 to 79 carry 5 marks each.**

Q78. Draw two opposites of the meaning "Rock" in two different frames and write a one line explanation accompanying each frame.



Q79. Draw a woman holding a child, crying in her arms, with appropriate details including the background. Your drawing should be in black and white only (Do not use any colour).



## Space for Rough Work

