S P JAIN APTITUDE TEST

Time: 50 minutes   **SAMPLE PAPER 2**

Please fill in the following information with a ball-point pen:

STUDENT NAME

S P JAIN'S REGISTERED APPLICATION NUMBER: _____ (IF APPLIED ELSE YOUR EMAIL ID) _____

Please read instructions in the answer sheet and question booklet before answering

1. Please check the number of questions before you start answering (Total no. of Sections : 5)

2. All rough work to be done only on the blank sheet provided at the back of the question booklet. Please do NOT write on the question paper

3. Laptops, calculators, slide rules, log tables, watch calculators, papers, cellular phones etc are not allowed inside the examination hall

4. You will not be allowed to leave the examination hall during the examination

5. This objective type exam is for 50 minutes

6. Any candidate found violating the instructions and receiving/giving any form of help will be disqualified

The decision of S P Jain will be final and binding on the applicant in case of any dispute.


Signature of Invigilator

APPROPRIATION OF MARKS

Section	No. of Questions	Marks per question	Total Marks per Section
Diagrammatic Reasoning	7	3	21
Logic	6	2	12
IQ	6	2	12
Numeracy	10	4	40
Reading Comprehension	5	3	15
Total	**34**		**100**

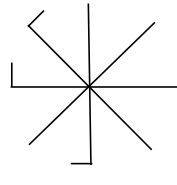## DIAGRAMMATIC REASONING (7Q x 3 marks = 21 marks.)

1. Given below are four images, out of which three share a common feature. Which of the four options is the odd one out?
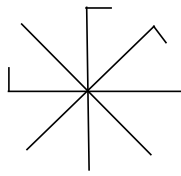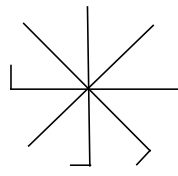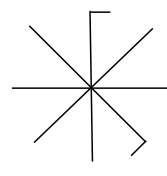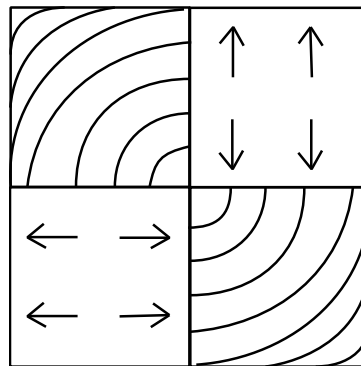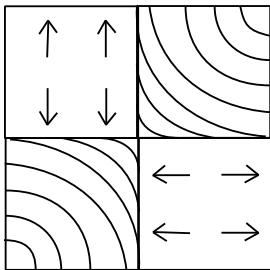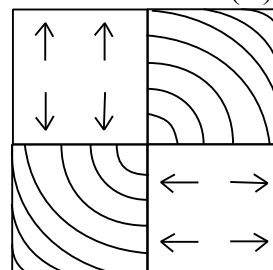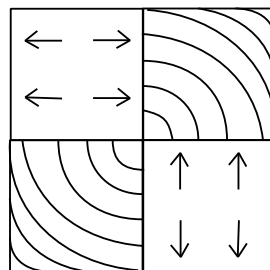
(A)   (B)   (C)   (D)

2. If the image below is reflected in a mirror, what will its mirror image look like?

(A)   (B)

(C)
(D)
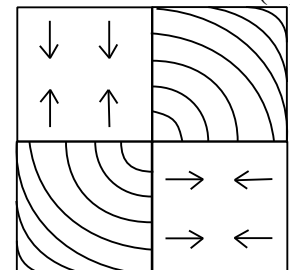
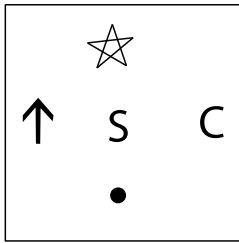3. Given below is a series of images which follow a certain logic. Which of the answer options can be used to replace the question mark below?

S C • ☆ ↑	C • ☆ ↑ S	• ☆ ↑ S C	?	↑ S C • ☆
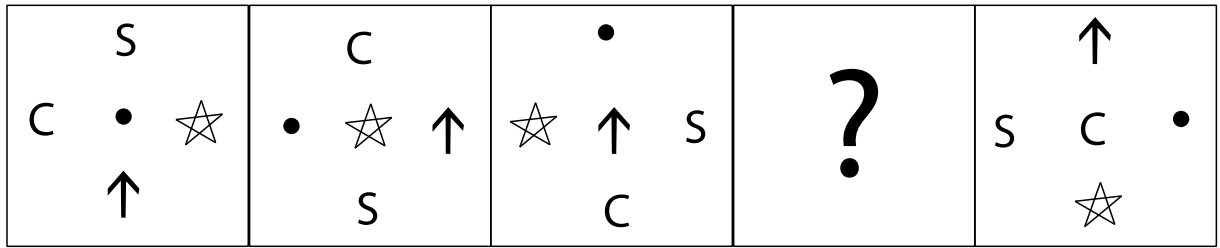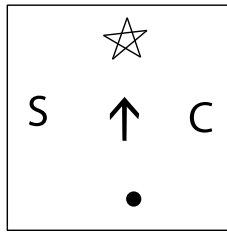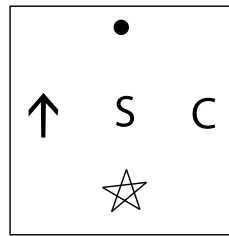
☆ ↑ S C •	☆ S ↑ C •	• ↑ S C ☆	☆ C S ↑ •
(A)	(B)	(C)	(D)

4. Which of the four answer options is not an image embedded in the figure given below?

(A)	(B)	(C)	(D)

- 4 -
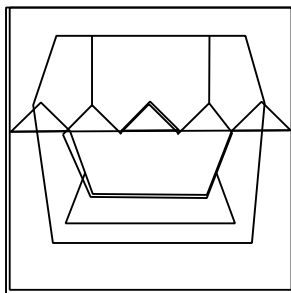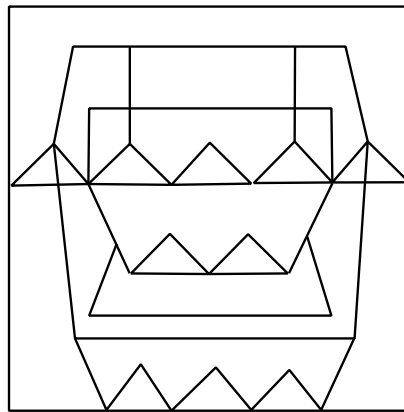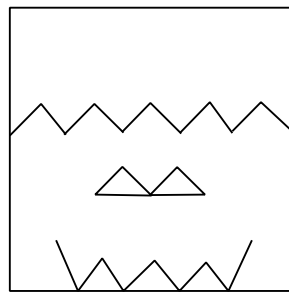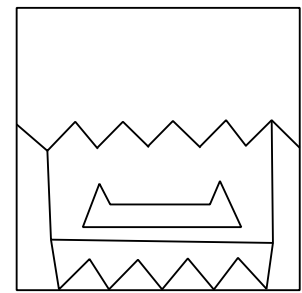
5. Given below is a figure that is divided into four sections. Which of the given options should be used to fill the blank such that the symmetry of the figure is maintained?
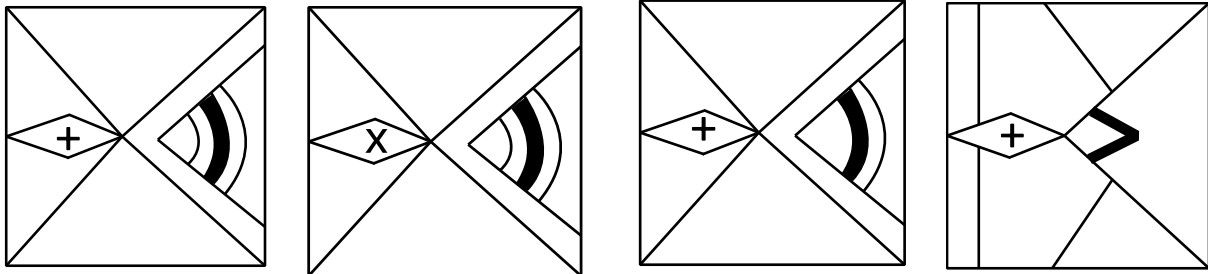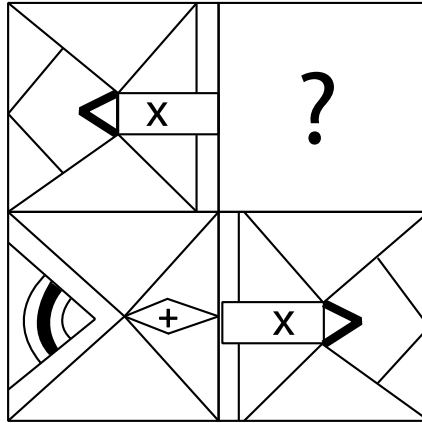
(A)   (B)   (C)   (D)

6. In a certain code, if
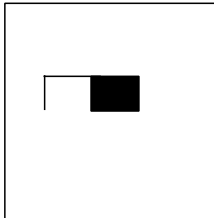
is translated to
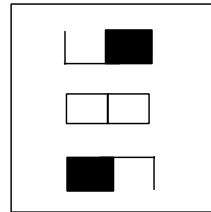
Then,

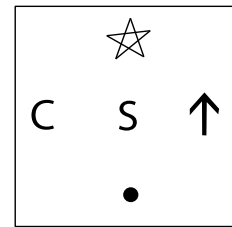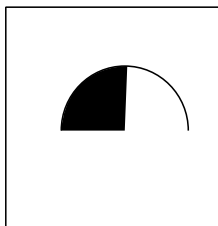will be translated to

?
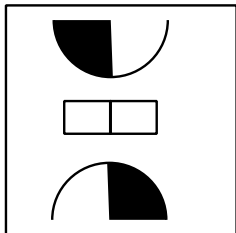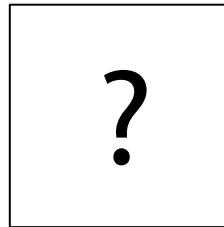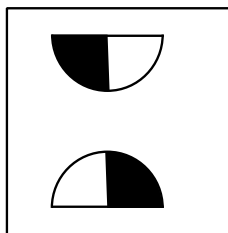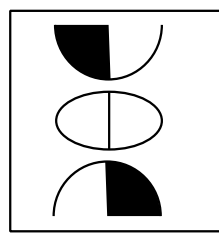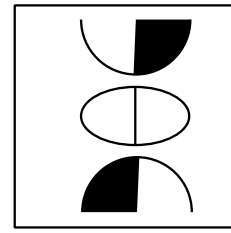
(A)   (B)   (C)   (D)

7. Which of the answer options should be used to replace the question mark in the figure matrix below?
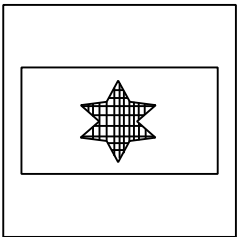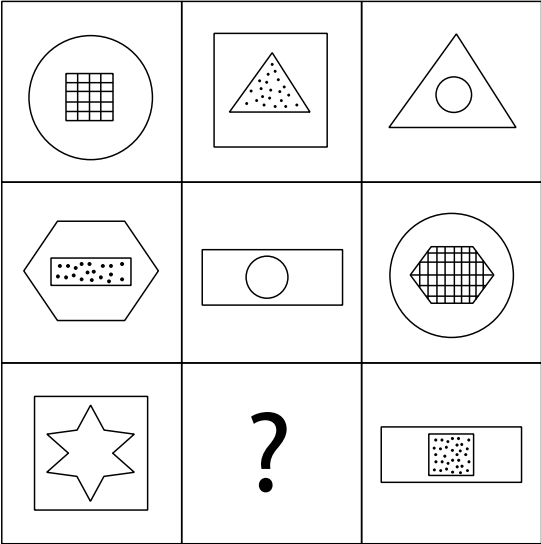
(A)   (B)   (C)   (D)
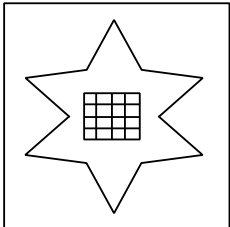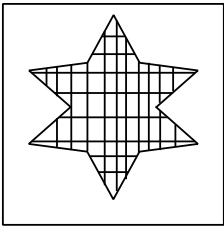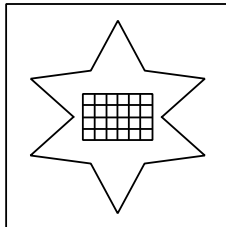
Five friends – Aaron, Brian, Carol, Denis and Eve attend five different courses among Geography, History, Biology, Mathematics and Law at five different colleges – A, B, C, D and E. The following information is known -

i. Brian studies Geography at college B.
ii. Carol does not study History or Biology.
iii. Aaron goes to college D and Carol goes to college E.
iv. The person who goes to college A studies History.
v. Biology is not taught at college C.
vi. Eve does not go to college A and does not study Law.

1. Who goes to college E?
   A) Aaron
   B) Carol
   C) Denis
   D) Eve

2. Who studies Biology?
   A) Aaron
   B) Carol
   C) Denis
   D) Eve

3. Which subject does Denis study?
   A) History
   B) Biology
   C) Mathematics
   D) Law

4. Which subject is definitely taught at college C?
   A) History
   B) Biology
   C) Mathematics
   D) Law

5. Which of the following combinations is incorrect?
   A) Carol – Law- College E
   B) Brian-Geography-College B
   C) Aaron- Biology – College D
   D) Eve- History – College C

6. Which of the following combinations is definitely correct?
   A) Carol – Law- College E
   B) Brian-Geography-College B
   C) Aaron- Biology – College D
   D) Eve- History – College C

IQ (6Q x 3 = 18 marks.)

1. Which comes next in the series below?

   ACE, BDF, GIK, HJL, MOQ,

   A) NPQ
   B) NPR
   C) SUW
   D) TVX

2. If the word FRIEND is coded as GSJDMC, then what will the word PATRON be coded as?

   A) OZSQNM
   B) QBUSPO
   C) QUBQMN
   D) QBUQNM

3. Insert the missing number in the table below –

56	81	74	63
27	90	55	62
38	?	62	30

   A) 30
   B) 54
   C) 29
   D) 63

4. The time on a clock is 20 minutes past 9. If the clock is reflected in a mirror, what will the time be in the mirror image of the clock?

   A) 40 minutes past 2
   B) 40 minutes past 1
   C) 50 minutes past 2
   D) 20 minutes past 2

5. Fill in the blanks –
   Clark was _____ when he slipped on the red carpet. We were _____ by his confidence.

   A) funny – discouraged
   B) anxious – affected
   C) offended – impressed
   D) unabashed – flummoxed

6. Which of the following statements are false?
   I.   May 14th of a year is not a Thursday if February 14th of the same year is a Friday
   II. Five Sundays cannot be present in the month of May
   III. A year having 53 Sundays, can have five Mondays in the month of May

   A) Statement I & II are false
   B) Statement II & III are false
   C) Statement I & III are false
   D) All statements are false

NUMERACY (10Q x 4 = 40 marks.)

1. What will be the last digit of the product of 872153^3 x 89171^2?

   A) 7
   B) 1
   C) 3
   D) 4

2. Which of the following is equal to $16a^4$?

   A) $(2a)^4$
   B) $(256)^{-2}(a^2)^2$
   C) $(64)^{3/2}(a^4)^{-2}$
   D) All of the other options

3. A wholeseller supplies few wooden tables to a retailer every year. Each table costs $500 to the wholeseller. 15% of the tables are defective and they are to be replaced without charging anything extra. If the wholeseller still makes a profit of 10%, at what price (approx.) is he selling it to the retailer?

   A) $575
   B) $633
   C) $651
   D) $425

4. In a school there are a total of 300 students. Students have the option of picking any of the following after-school sports activities - basketball, football and baseball. 70 students chose to play all three sports, 24 choose to play only basketball and football, 45 choose to play only football and baseball and 20 choose to play only baseball and basketball. If each student chooses to play atleast one sport how many students choose to play only baseball?

   A) 90
   B) 55
   C) 72
   D) Cannot be determined with the provided information

5. The below mentioned table shows the blood group distribution of 120 students in a class.

1.	A	20
2.	B	35
3.	O	20
4.	AB	45

   If a student is picked at random, what is the probability that the student is not of A or B blood group?

   A) 11/24
   B) 13/24
   C) 15/24
   D) 5/12

6. The ticket for a particular show is $10 on regular days. However on Saturday the theatre decides to reduce prices for each ticket by 20%. This results in the overall revenue earned by the theatre (revenue = price per ticket into number of tickets sold) increasing by 50% over regular days. How many more tickets (approx.) were sold on Saturday compared to regular days?

A) 50%
B) 65.5%
C) 87.5%
D) 120%

7. Leonard, Mike and Jack start at the same time in the same direction to run around a circular stadium. Leonard completes a round in 90 seconds, Mike in 75 seconds and Jack in 115 seconds, all starting at the same point. After what time will all three of them be at the starting point together again?

A) 3 hours 21 minutes
B) 2 hours 55 minutes 20 seconds
C) 2 hours 45 minutes 30 seconds
D) 2 hours 52 minutes 30 seconds

8. In the figure below, ABCD is a rectangle and E and F are the mid points of AB and CD respectively. If AB is 20 cm, and EF is 7 cm, what is the area of the shaded region? (Note: figure not drawn to scale)
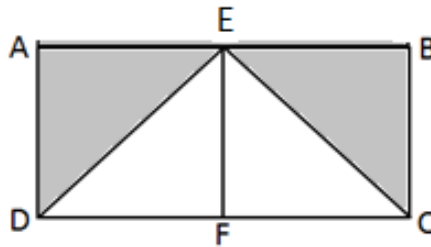
A) 70 cm^2
B) 140 cm^2
C) 35 cm^2
D) 120 cm^2

Questions 9 & 10

The demographic distribution of employees in two companies is represented in the doughnut charts below. The total number of employees in Company 1 is 300, and in Company 2 is 450.
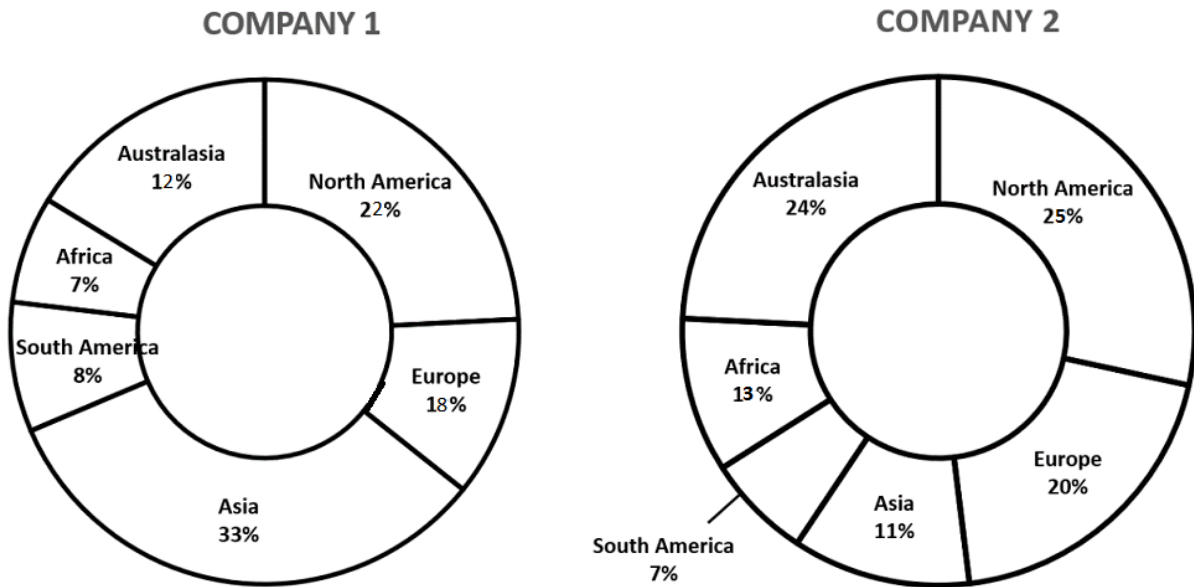
9. What is the total number of employees (approx.) in Company 1, who are from either Asia or South America?

A) 97
B) 123
C) 184
D) 62

10. How many more employees in Company 2 are from Australasia as compared to Company 1?

A) 36
B) 72
C) 108
D) 144

READING COMPREHENSION (5Q x 3 = 15 marks.)

Flat wages, shrinking bank accounts, declining living standards -- we've been thinking these were mystifyingly complex problems that resisted clear solutions. Turns out there's a simple way to make more money all along: We just needed GOP presidential candidate Jeb Bush to point it out to us. The answer? Just work more hours. In other words: "Jebify" your life.

That's right. In an interview with the New Hampshire newspaper The Union Leader, Bush said, "People need to work longer hours" to achieve 4% growth in our nation's economy. Hillary Clinton responded by pointing out the difference between productivity gains for the country and actual hourly compensation for Americans. "Anyone who believes Americans aren't working hard enough hasn't met enough American workers," she tweeted.

Bush then backpedaled and said he was referring to the 6.5 million people who wanted full-time work but couldn't find it. The only problem with that number -- 6.5 million -- is that it constitutes less than 5% of America's total workforce of 148.7 million.

But never mind that -- it's too much math, and Americans are not into math.

The simple answer was right there, hiding in plain sight, the whole time. If you don't have enough money, don't fret. Go right up to your employer and ask for more hours. It's as simple as that. Never mind that Americans already work more hours than their counterparts in most other advanced countries. And whatever you do, don't look at those annoying statistics that say most Americans who work full time actually work 47 hours a week instead of 40 hours.

The opportunities are endless. College graduates make about twice as much over a lifetime as those with only a high school diploma. You can take some of the money from your Jebified job and Jebified home and earn a college degree in the evenings if you haven't got one.

Sure, there are some tradeoffs if you want to Jebify your life. According to a 2012 study, spending more than eight hours a day at work can lead to stress, high-blood pressure and dietary problems, which in turn lead to a domino effect of additional health problems. Working 11-hour days also doubles your rate of depression. But it's a small price to pay for the benefits of squeezing more work into your day, right?

The naysayers may claim that corporations could use some of their unprecedented fortunes to give middle-class workers a boost. As one Reuters correspondent put it, companies "still managed to boost profits beyond anything ever seen before because they've got away with employing as few workers as possible at as low a rate as possible."

But acknowledging that companies have a responsibility to pay workers better would require a total rethink of Jebifying your life. It would require an admission that obscene CEO compensation coupled with flat wages for workers kills morale. It would require a belief that America is stronger when living standards are going up for everyone -- not just billionaires.

This approach would promote dignity and self-respect, create healthier and happier communities, and instill hope for future generations. As Clinton said last month, "Democracy can't be just for billionaires and corporations." Accordingly, she "will give new incentives to companies that give their employees a fair share of the profits their hard work earns." That sounds like a much better deal but perhaps politically impossible in our ***polarized*** climate.

Hillarifying the whole system would require working together. Jebifying your life simply requires working your fingers to the bone. It seems that Americans are particularly good at the latter. And best of all: On your deathbed, you can brag about how much time you spent at work.

1. Which of the following states the main idea of the passage?

   A) Working more hours is an impractical and inaccurate solution to the variety of problems that are being faced by the American public
   B) Political opinions must be compared and investigated to understand why certain leaders recommend specific solutions
   C) GOP presidential candidate Jeb Bush is the right choice to run America as his visions and goals for the country are modern and inspiring
   D) American public can stand to gain a lot if they are willing to put in more effort and hours at work as compared to other advanced countries

2. The author believes that scarcity of money can be fixed by –

   A) Jebifying your life in all possible ways
   B) Studying statistics and getting a high school diploma
   C) Making corporations share their fortunes with workers
   D) None of the above

3. Why does the author say that Americans are not into math?

   A) To highlight the reasons for academic choices made my American youth
   B) To indicate that public did not understand or reject Jeb's illogical solution
   C) To share that the whole system needs to working together and solve problems
   D) To convince the government to give workers a fair share of the profits

4. The attitude of the author of the passage towards Jeb's solution is best described as one of?

   A) Optimism
   B) Satire
   C) Appreciation
   D) Opposition

5. What is the closest meaning of the word "polarized" as used in the paragraph?

   A) negative
   B) popular
   C) cold
   D) divided

ANSWERKEY

DIAGRAMMATIC REASONING	
1	B
2	C
3	A
4	D
5	A
6	C
7	D

LOGIC	
1	B
2	A
3	A
4	C
5	D
6	B

IQ	
1	B
2	D
3	B
4	A
5	D
6	A

NUMERACY	
1	A
2	A
3	B
4	D
5	B
6	C
7	D
8	A
9	B
10	B

READING COMPREHENSION	
1	A
2	D
3	B
4	B
5	D