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

STUDENT NAME

S P JAIN'S UNDERGRADUATE ENTRANCE TEST

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 : 6)
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. 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
Logic	5	2	10
Diagrammatic Reasoning	4	4	16
Numeracy	6	3	18
IQ	10	2	20
Reading Comprehension	5	4	20
General Awareness	8	2	16
Total	**38**		**100**

ANSWER FOR THE QUESTIONS ARE PROVIDED AT THE END OF THE PAPER

Note

It is advisable that the candidate reads the question carefully and avoids marking answers thoughtlessly.

Analyzing the previous question papers will help the candidate to get a clear picture of the pattern of questions asked in each section. Only answer if you are 100% sure about the correct answer.

LOGIC (5Q x 2 marks = 10 marks.)

1. In a four-day period Monday through Thursday each of the following temporary office workers worked only one day, each a different day. Alice was scheduled to work on Monday, but she traded with Becky, who was originally scheduled to work on Wednesday. Camille traded with Debby, who was originally scheduled to work on Thursday. After all the switching was done, who worked on Tuesday?

   (A) Alice
   (B) Becky
   (C) Camille
   (D) Debby

2. L # M means M is at 1 metre to the right of L
   L $ M means M is at 1 metre to the North of L
   L * M means M is at 1 metre to the left of L
   L @ M means M is at 1 metre to the South of L
   According to K @ M * T @ U # V # W, W is in which direction with respect to K?

   (A) North-West
   (B) South
   (C) South-East
   (D) South-West

3. Five friends P, Q, R, S and T are all owners of one restaurant each. Each owner has only one daughter but named his restaurant after one of the other friend's daughter. S's restaurant is called Candice; R's restaurant is called Rene. P, who is Eliza's father owns a restaurant called Lorea. Q owns a restaurant called Maria, which is named after S's daughter. Candice's father used T's daughter's name for his restaurant. Who is Lorea's father?

   (A) Q
   (B) P
   (C) S
   (D) T

4. Pointing to a man Ryan says, "That man is my mother's mother's only son's sister's husband."
   If it is known that Ryan's mother had only one sibling then how is the man Ryan is pointing at related to Ryan?

   (A) Uncle
   (B) Brother
   (C) Father
   (D) Cousin

5. At a business conference, there are five guests, Karen, Elizabeth, Anne, Sarah, and Jennifer, who are not sure where to sit at the dinner table. They ask the organizer, who responds, "As I remember, Karen is not next to Anne, Elizabeth is not next to Sarah or Anne. Neither Anne nor Elizabeth are next to Jennifer. And Sarah should sit on Jennifer's left." Who is to the immediate right of Elizabeth?

(A) Sarah
(B) Jennifer
(C) Anne
(D) Karen

DIAGRAMMATIC REASONING (4Q x 4 marks = 16 marks.)

1. On folding the paper given below in the shape of a cube (like a dice) which alphabet would lie opposite B?
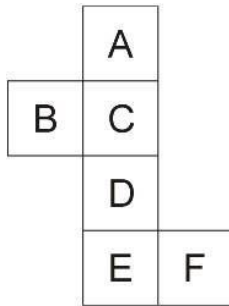
    (A) A
    (B) D
    (C) E
    (D) F

2. Given below is a figure which has two dots placed in it according to a particular logic. Identify out of the options in which option two dots can be placed using a similar logic?

A	B	C	D
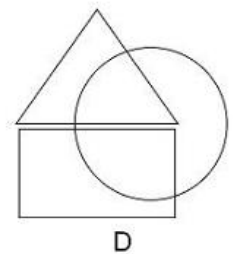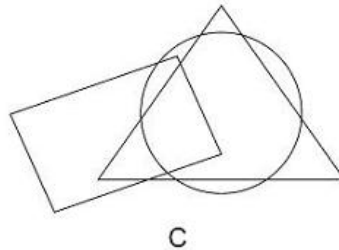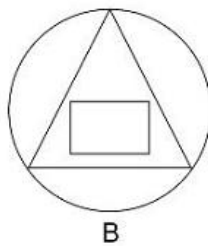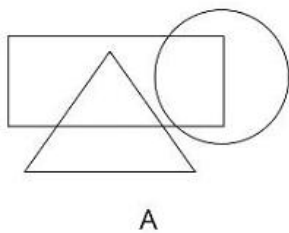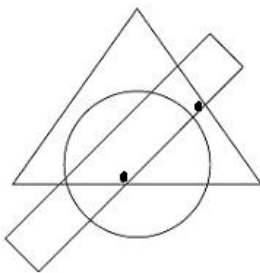
3. If the below image is reflected in a mirror then which of the options will the reflection resemble?

A   B   C   D
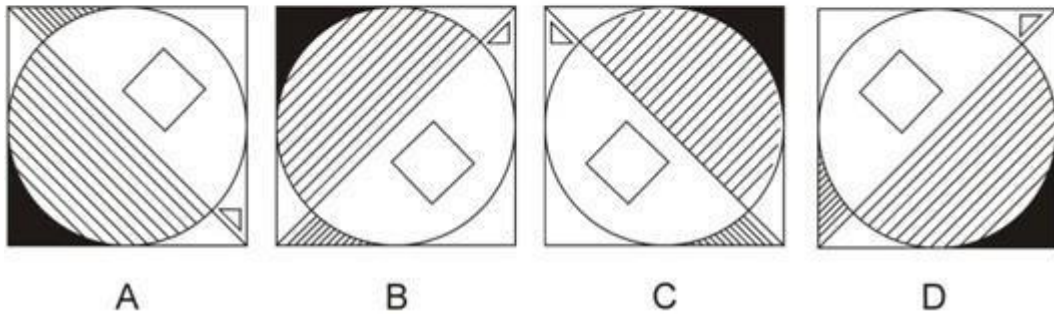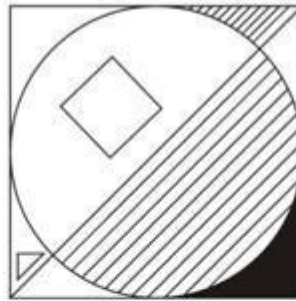
4. Which of the following options logically completes the below figure matrix?

A   B   C   D
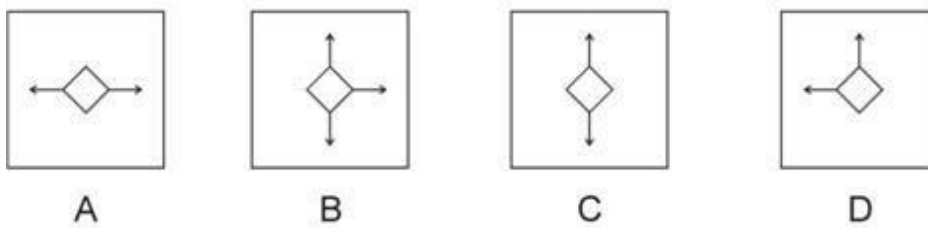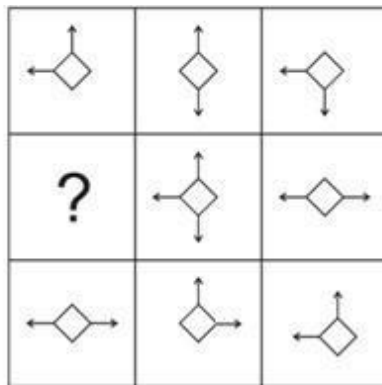
NUMERACY (6Q x 3 = 18 marks.)

1. It takes 8 hours for a journey, if 120 km is covered by train and the rest by car. The ratio of the speed of the train to that of the car is 3:4. It takes 20 minutes more, if 200 km of the journey is done by train and the rest by car. What is the total distance to be covered during the journey?

   (A) 540 km
   (B) 360 km
   (C) 500 km
   (D) 600 km

2. The average weight of P, Q and R is 90 kg. If the average weight of P and Q is 80 kg and that of Q and R is 86 kg, then the weight of Q is:

   (A) 62 kg
   (B) 31 kg
   (C) 54 kg
   (D) 68 kg

3. In a particular family there are four children. Each child of the family was born after an interval of four years from the previous child. The sum of the ages of the 4 children of the family is 50 years. What is the age of the oldest child?

   (A) 15 years
   (B) 12.5 years
   (C) 20 years
   (D) 22 years

4. The least number, which when divided by 24, 30, 40 and 108 leaves in each case a remainder of 8 is:

   (A) 1080
   (B) 1907
   (C) 1087
   (D) 1807

5. A trader buys mangoes at the rate of $350 for n mangoes and sold them at the rate of $48 per dozen. The percentage of profit on the cost price is $14 \frac{2}{7}$ %.
   What is the value of n?

   (A) 120
   (B) 100
   (C) 98
   (D) 75

6. In the following diagram what is the length of the side labelled x?

6

x

2 √11

8
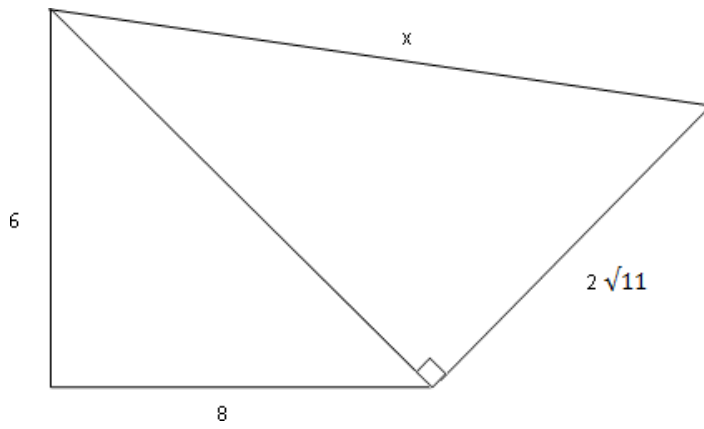
(A) 14 cms
(B) 12 cms
(C) 11.25 cms
(D) √44 cms

IQ (10Q x 2 = 20 marks.)

1. Which group of numbers is similar to the sample set of numbers given below?
   (15, 5, 50)

   (A)(42, 8, 80)
   (B) (18, 9, 90)
   (C) (21, 7, 70)
   (D)(4, 2, 30)

2. 421, 822, 543, 997, 564
   What will be the last digit of the second lowest number after the positions of only the first and the third digits within each number are interchanged?

   (A) 8
   (B) 4
   (C) 5
   (D) 9

3. In a certain language CREATE has been coded as EACETR, then in that code which of the following options can be the code for MANUAL?

   (A) AULMNA
   (B) AALNUM
   (C) AANMUL
   (D) LUMNAA

4. If 18th July 2013 is a Thursday what will be the day on 15th June 2014?

   (A) Monday
   (B) Thursday
   (C) Sunday
   (D) Friday

5. Which of the following is the synonym of protract?

   (A) Abbreviate
   (B) Prolong
   (C) Curtail
   (D) Chronic

6. Which of the following words has been spelt incorrectly?

   (A) Intrepid
   (B) Divertion
   (C) Benevolent
   (D) Infallible

7. Which of the following set of alphabets is the odd one out?

   (A) BDF
   (B) CEH
   (C) AGH
   (D) CDI

8. How many even numbers are there in the following series which are preceded by an odd number and followed by an even number?
   5 4 3 2 1 8 8 6 5 4 7 6 2 8 3 6 6 8 7 4 2 1 5 8 1

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

9. Given below is a series of numbers. Which option would come next in the below series
   4, 4, 12, 60,420,

   (A) 2105
   (B) 1260
   (C) 3780
   (D) 4210

10. Given below is a sample table. In the problem table given below the numbers are to be placed using a similar logic as in the sample table. What numbers will replace X and Y in the problem table?

	6	
3	5	39
	30	

Sample Table

	5	
4	8	Y
	X	

Problem Table

   (A) X=40, Y=41
   (B) X=40, Y=49
   (C) X=40, Y=51
   (D) X=30, Y=29

What's in a word? We may live in a very different and much more complex world, but without the ancient Greeks we wouldn't even have the words to talk about many of the things we care most about. Take politics for example: apart from the word itself (from *polis*, meaning city-state or community) many of the other basic political terms in our everyday vocabulary are borrowed from the ancient Greeks: monarchy, aristocracy, tyranny, oligarchy and - of course - democracy.

The ancient Greek word *demokratia* was ambiguous. It meant literally 'people-power'. But who were the people to whom the power belonged? Was it all the people - the 'masses'? Or only some of the people - the duly qualified citizens? The Greek word *demos* could mean either. There's a theory that the word *demokratia* was coined by democracy's enemies, members of the rich and aristocratic elite who did not like being outvoted by the common herd, their social and economic inferiors. If this theory is right, democracy must originally have meant something like 'mob rule' or 'dictatorship of the proletariat'.

By the time of Aristotle (fourth century BC) there were hundreds of Greek democracies. Greece in those times was not a single political entity but rather a collection of some 1,500 separate *poleis* or 'cities' scattered round the Mediterranean and Black Sea shores 'like frogs around a pond', as Plato once charmingly put it. Those cities that were not democracies were either oligarchies - where power was in the hands of the few richest citizens - or monarchies, called 'tyrannies' in cases where the sole ruler had **<u>usurped</u>** power by force rather than inheritance. Of the democracies, the oldest, the most stable, the most long-lived, but also the most radical, was Athens.

The origin of the Athenian democracy of the fifth and fourth centuries can be traced back to Solon, who flourished in the years around 600 BC. Solon was a poet and a wise statesman but not - contrary to later myth - a democrat. He did not believe in people-power as such. But it was Solon's constitutional reform package that laid the basis on which democracy could be pioneered almost 100 years later by a progressive aristocrat called Cleisthenes.

Cleisthenes was the son of an Athenian, but the grandson and namesake of a foreign Greek tyrant, the ruler of Sicyon in the Peloponnese. For a time he was also the brother-in-law of the Athenian tyrant, Peisistratus, who seized power three times before finally establishing a stable and apparently benevolent dictatorship. It was against the increasingly harsh rule of Peisistratus's eldest son that Cleisthenes championed a radical political reform movement which in 508/7 ushered in the Athenian democratic constitution.

1. What is the tone of the above passage?

   (A) Descriptive
   (B) Analytical
   (C) Argumentative
   (D) Candid

2. What is the meaning of the word 'usurped' as used in the above passage?

   (A) Granted
   (B) Seized
   (C) Merged
   (D) None of the other options

3. What is the main purpose of the passage?

   (A) To highlight the difference between Democracy in Ancient Greece and the present day
   (B) To emphasize why Democracy is the best form of government
   (C) To showcase how Democracy was born in Ancient Greece
   (D) None of the other options

4. Which of the following has NOT been mentioned in the above passage?

   (A) All cities in Ancient Greece were democracies
   (B) Cleisthenes advocated political reform in opposition to the harsh rule of Peisistratus's eldest son
   (C) It was due to constitutional reforms made by Solon that democracy could emerge in Athens
   (D) All of the above options have been mentioned in the passage

5. At one point in the passage why does the author state "democracy must originally have meant something like 'mob rule' or 'dictatorship of the proletariat"

   (A) In Ancient Greece democracy meant the rule of tyrants but in translation to English was converted to mean people power
   (B) Democracy as practiced in Ancient Greece was merely a ruse used by dictators to legitimize their rule
   (C) It took Democracy several thousands of years to evolve from chaotic mob rule to the Democracy that is practiced today
   (D) None of the other options

GENERAL AWARENESS(8Q x 2 = 16 marks.)

1. Who was appointed as the Prime minister of Italy in April 2013?

   (A) Enrico Letta
   (B) Mario Monti
   (C) Silvio Berlusconi
   (D) Massimo D'Alema

2. The mascot for the 2014 football World Cup in Brazil is

   (A) Fuleco
   (B) Zakumi
   (C) Goleo VI
   (D) Footix

3. Who won the 2013 Bahrain Formula 1 Grand Prix?

   (A) Kimi Raikkonen
   (B) Sebastian Vettel
   (C) Romain Grosjean
   (D) Lewis Hamilton

4. In April 2013 technology which company reported its first quarterly decrease in profit over the last ten years?

   (A) Google
   (B) Yahoo
   (C) Apple
   (D) Samsung

5. Which country overtook China to become third strongest economy in Asia as per the Asian Competitiveness Annual Report 2013?

   (A) Malaysia
   (B) Sri Lanka
   (C) Japan
   (D) UAE

6. What is the symbol of the chemical element Tin?

   (A) Sb
   (B) Sn
   (C) T
   (D) Ti

7. What is the currency of China?

   (A) Yen
   (B) Renminbi
   (C) Ringgit
   (D) Baht

8. Out of the below options which company is Carlos Ghosn currently the CEO of?

   (A) Toyota
   (B) Volkswagen
   (C) Renault
   (D) General Motors

ANSWERKEY FOR SPJET SAMPLE PAPER 6

LOGIC			**IQ**	
1	D		1	C
2	C		2	A
3	A		3	D
4	C		4	C
5	C		5	B
			6	B
			7	D
			8	C
			9	C
			10	B

DIAGRAMMATIC REASONING			**READING COMPREHENSION**	
1	D		1	A
2	C		2	B
3	A		3	C
4	B		4	A
			5	D

NUMERACY			**GK**	
			1	A
1	D		2	A
2	A		3	B
3	C		4	C
4	C		5	D
5	B		6	B
6	B		7	B
			8	C