Please fill in the following information with a ball-point pen:
STUDENT NAME
S P JAIN'S REGISTERED APPLICATION NUMBER: $\qquad$ (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. 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

|  | No. ofl\|Marks per Total <br> Questions <br> question <br> Sarks per <br> Section |  |  |
| :--- | :--- | :--- | :--- |
| Diagrammatic Reasoning | 7 | 3 | 21 |
| Logic | 6 | 2 | 12 |
| IQ | 6 | 2 | 12 |
| Numeracy | 10 | 4 | 40 |
| Reading Comprehension | 5 | 3 | 15 |
| Total | $\mathbf{3 4}$ |  | $\mathbf{1 0 0}$ |

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

1. How many triangles are there in the below figure?

(A) 27
(B) 26
(C) 28
(D) 17
2. If the image given below is reflected in a pool of water which of the options shall it resemble out of A, B, C, D and E.



A


B


C


D


E
3. Find out which of the options completes the figure matrix given below.



A


B


C


D

None Of the Other options

E
4. Select an option, the contents of which may replace the question marks in the problem figures such that figure III is related to figure IV in the same way as figure I is related to figure II?



A


B


C


D


E
5. On folding the paper given below into the shape of a cube (like a dice) which letter would lie opposite A?

6. Given below is a figure which has two dots placed in it according to a particular logic. Identify out of the options A, B, C, D and E in which option two dots CANNOT be placed using a similar logic?



B


C


D

None Of the Other options

E
7. The below five figures are in a logical series. Out of the options A, B, C, D and E what comes next in the series?


A

B

C

D

E

## LOGIC

At a movie theatre six people are randomly chosen to take part in a survey. Out of the 6 people 4 are working professionals and 2 are college students. These six people each live in 4 different parts of the city namely Area P, Area Q, Area R and Area S. In the survey each person is asked two questions

Question 1- What type of movies do they like? Each person answered a different type of movie out of Cartoons, Science Fiction, Comedies, Dramas, Documentaries and Tragedies.

Question 2 - Who is their favourite actress? Again each person answered a different actress namely $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}$ or F .

The following information is provided
None of the working professionals like Science Fiction or Tragedies.
Only two persons live in Area Q and one of them likes Cartoons and the other likes Tragedies
One of the persons who lives in Area R likes Documentaries
One of the persons who lives in Area S likes Dramas
The college students live in Area Q and Area P
The person whose favourite actress is C does not like Dramas
The person whose favourite actress is E does not like Cartoons
Two working professionals who are the only people living in their respective areas have their favourite actresses as B and C

1. The person whose favourite actress is B lives in which area?
(A) Area $P$
(B) Area Q
(C) Area R
(D) Area S
2. The favourite actress of the person who lives in Area R is?
(A) A
(B) B
(C) C
(D) D
3. The person whose favourite actress is A likes what kind of movies?
(A) Tragedies
(B) Science Fiction
(C) Comedies
(D) Cannot be determined with the information provided
4. The working professional living in Area Q likes what kind of movies?
(A) Comedies
(B) Cartoons
(C) Documentaries
(D) Dramas
5. One of the persons living in Area $P$ likes which of the following kind of movies?
(A) Cartoons
(B) Documentaries
(C) Tragedies
(D) Science Fiction
6. If in a certain code MERGER has been coded as NGUKJX, in that language what will be the code for STRATEGY?
7. Given below is a familiar saying with all the vowels, punctuations as well as some of the spacing between words removed. Provide the complete saying as the answer

## STRGHTFRM THHRSS MTH

3. Find the next term in the series below?
$2,8,24,60,136,292, ?$
4. If $10^{\text {th }}$ April 2014 is a Thursday, what was the day on $8^{\text {th }}$ May 2012?
5. What will be the middle digit of the $2^{\text {nd }}$ highest number after the positions of the first and third digits in each of the below numbers is reversed?

138429568222483

## NUMERACY

1. Based on the below information choose the option which correctly defines the relationship between the Column A and Column B
$a b \neq 0$

| Column A | Column B |
| :---: | :---: |
| $\mathrm{a}^{2} \mathrm{~b}^{2}$ | $(-\mathrm{ab})^{2}$ |

(A) The quantity in Column $A$ is greater
(B) The quantity in Column B greater
(C) The quantity in Column A and Column B are equal
(D) The relationship between the columns cannot be determined without further information
2. The age of John 21 years from now will be half that of Parson at that time. Currently the ratio of John's age to Parson's age is $5: 17$. What was the age of Parson 2 years ago?
(A) 15 years
(B) 49 years
(C) 32 years
(D) 11 years
3. The average of 40 numbers is zero. Of them, at the most, how many can be greater than zero?
(A) 0
(B) 1
(C) 39
(D) 20
4. The smallest number which when diminished by 14 , is exactly divisible $24,32,36,42$ and 56 is:
(A) 2015
(B) 2030
(C) 2016
(D) 2420
5. Two cards are drawn together from a pack of 52 cards. The probability that one is a heart and one is a club, is:
(A) $1 / 8$
(B) $2 / 102$
(C) $3 / 20$
(D) $13 / 102$
6. A man completes a journey in 20 hours. He travels half of the journey's distance at the rate of $84 \mathrm{~km} / \mathrm{hr}$ and the other half of the journey's distance at the rate of $96 \mathrm{~km} / \mathrm{hr}$. Find the total distance that the man covered during the journey?
(A) 448 km
(B) 1792 km
(C) 896 km
(D) 908 km
7. The percentage profit earned by selling an article for $\$ 960$ is equal to the percentage loss incurred by selling the same article for $\$ 640$. At what price should the article be sold to make a $30 \%$ profit?
(A) $\$ 800$
(B) $\$ 1840$
(C) \$ 1200
(D) $\$ 1040$

8. The diameters of the circles in the above figure (not drawn to scale) are 6 m and 10 m . Calculate the approximate area of the shaded portion.
(A) $45 \mathrm{~m}^{2}$
(B) $50 \mathrm{~m}^{2}$
(C) $55 \mathrm{~m}^{2}$
(D) $60 \mathrm{~m}^{2}$

Questions 9 and 10 are on the chart given below
Percentage of City Population using Smart Phones in Mumbai and New Delhi over 5 years Given below is a chart tabulating their answers


It is known that Mumbai's population in year 1 was 10 Million and that of Delhi was 10 Million as well, and that the population of both cities have increased at a constant rate of $10 \%$ compounded annually since then.
9. What is the number of people using smart phones in Mumbai in the $1^{\text {st }}$ year as a percentage of the number of people using smart phones in New Delhi in the $5^{\text {th }}$ year? Round off your answer to the nearest integer percentage.
(A) $25 \%$
(B) $28 \%$
(C) $30 \%$
(D) $35 \%$
10. What is the ratio of the number of smart phone users in Mumbai during year 1 to those in New Delhi during year 2?
(A) $1: 1$
(B) $50: 51$
(C) $75: 100$
(D) $8: 11$

## READING COMPREHENSION

Adherents of most historical models identify many of the same features of the Ancient Régime as being among the causes of the French Revolution. Historians at one time emphasized class conflicts from a Marxist perspective; that interpretation fell out of favour in the late 19th century. The economy was not healthy; poor harvests, rising food prices, and an inadequate transportation system made food even more expensive. The sequence of events leading to the revolution involved the national government's virtual bankruptcy due to its poor tax system and the mounting debts caused by numerous large wars. The attempt to challenge British naval and commercial power in the Seven Years' War was a costly disaster, with the loss of France's colonial possessions in continental North America and the destruction of the French Navy. French forces were rebuilt and performed more successfully in the American Revolutionary War, but only at massive additional cost, and with no real gains for France except the knowledge that Britain had been humbled. France's inefficient and antiquated financial system was unable to finance this debt. Faced with a financial crisis, the king called an Assembly of Notables in 1787 for the first time in over a century. Meanwhile, the royal court at Versailles was isolated from, and indifferent to the escalating crisis. While in theory King Louis XVI was an absolute monarch, in practice he was often indecisive and known to back down when faced with strong opposition. While he did reduce government expenditures, opponents in the parliaments successfully thwarted his attempts at enacting much needed reforms. Those who were opposed to Louis' policies further undermined royal authority by distributing pamphlets (often reporting false or exaggerated information) that criticized the government and its officials, stirring up public opinion against the monarchy.
Many other factors involved resentments and aspirations given focus by the rise of Enlightenment ideals. These included resentment of royal absolutism; resentment by peasants, laborers and the bourgeoisie toward the traditional seigniorial privileges possessed by the nobility; resentment of the Catholic Church's influence over public policy and institutions; aspirations for freedom of religion; resentment of aristocratic bishops by the poorer rural clergy; aspirations for social, political and economic equality, and (especially as the Revolution progressed) republicanism; hatred of Queen Marie-Antoinette, who was falsely accused of being a spendthrift and an Austrian spy; and anger toward the King for firing finance minister Jacques Necker, among others, who were popularly seen as representatives of the people.

1. What is the meaning of the word 'thwarted' as used in the above passage?
(A) Aided
(B) Supplemented
(C) Popularized
(D) Opposed
(E) Ignored
2. What is the tone of the above passage?
(A) Candid
(B) Lamenting
(C) Descriptive
(D) Sarcastic
(E) Analytical
3. What is the main purpose of the above passage?
(A)To contrast the French Revolution to a Marxist revolution
(B) To highlight the causes of the French Revolution
(C) To emphasize the difficulties in initiating a revolution
(D) To showcase the various benefits derived from the French Revolution
(E) None of the other options
4. Which of the following options correctly describes King Louis XVI as per information provided in the passage?
(A) As a powerful monarch who refused to undertake any reforms
(B) As an hesitant ruler who was attempting reforms but was unable to do so
(C) As an extravagant emperor who only cared for his personal well-being
(D) As a strong leader who boldly undertook changes to modernize France
(E) None of the other options
5. Which of the following has been mentioned in the above passage?
(A) Social laws were no longer applied, and efforts toward economic equality were abandoned before the French Revolution
(B) Extravagant spending by Queen Marie-Antoinette was one of the primary causes of the revolution
(C) The American Revolutionary war was heavily inspired by the French Revolution.
(D) A humbled Britain took revenge on the French monarchy by spreading rumours
(E) None of the other options

## ANSWERKEY FOR SPJAT SAMPLE PAPER 5

| DIAGRAMMATIC REASONING |  | NUMERACY |  |
| :---: | :---: | :---: | :---: |
| 1 | B | 1 | C |
| 2 | A | 2 | B |
| 3 | E | 3 | C |
| 4 | B | 4 | B |
| 5 | F | 5 | D |
| 6 | D | 6 | B |
| 7 | B | 7 | D |
|  |  | 8 | B |
|  |  | 9 | C |
|  |  | 10 | D |
|  | LOGIC | READING COMPREHENSION |  |
| 1 | D | 1 | D |
| 2 | C | 2 | E |
| 3 | D | 3 | B |
| 4 | B | 4 | B |
| 5 | D | 5 | E |
|  | IQ |  |  |
| 1 | TVUEYKNG |  |  |
| 2 | STRAIGHT FROM |  |  |
|  | THE HORSES |  |  |
|  | MOUTH |  |  |
| 3 | 608 |  |  |
| 4 | TUESDAY |  |  |
| 5 | 6 |  |  |

