SPJAT SAMPLE PAPER

Time: 60 minutes

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. There will be negative marking as per indication in each section (Total no. of Sections : 6)

2. Please check the number of questions before you start answering

3. 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

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

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

6. This objective type exam is for 60 minutes

7. 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	Negative Marking per question
Diagrammatic Reasoning	7	3	21	1
Logic	5	2	10	0.5
IQ	5	2	10	0.5
Numeracy	10	3	30	1
Reading Comprehension	5	3	15	1
GK Questions	14	1	14	1
Total	**46**		**100**	

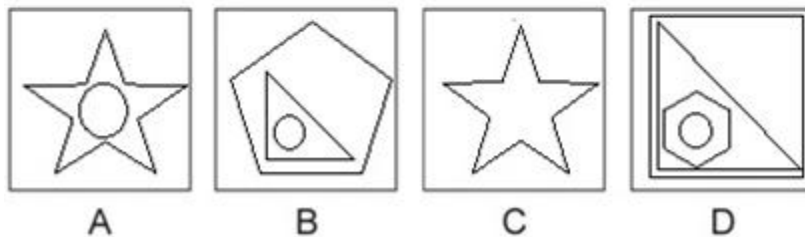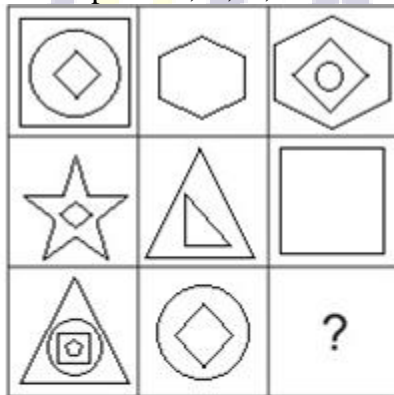## DIAGRAMMATIC REASONING (7Q x 3 marks = 21 marks. Negative marking – 1 mark)
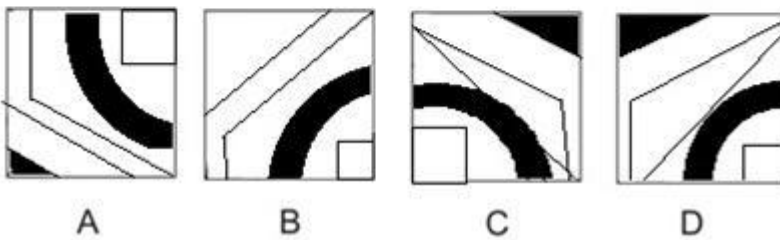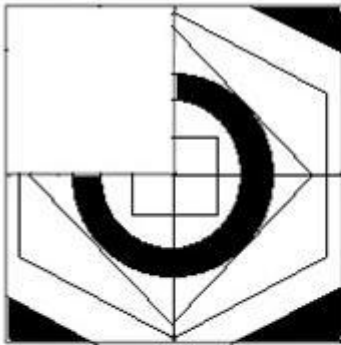
1. The following figures are in a logical series. Out of the options A, B, C, D and E what comes next in the series?
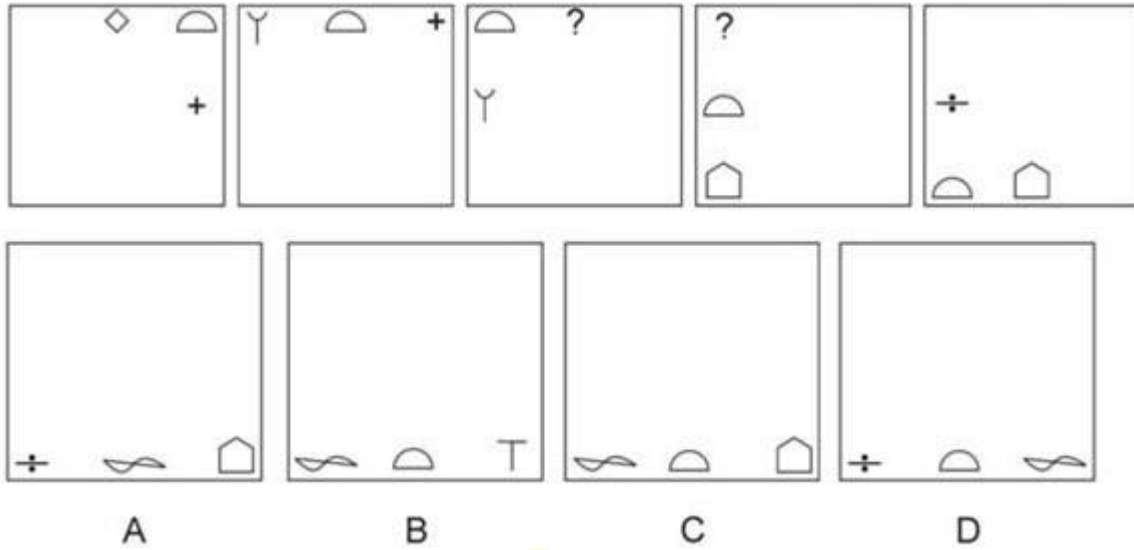

2. Find out which of the option A, B, C, or D completes the below figure matrix.

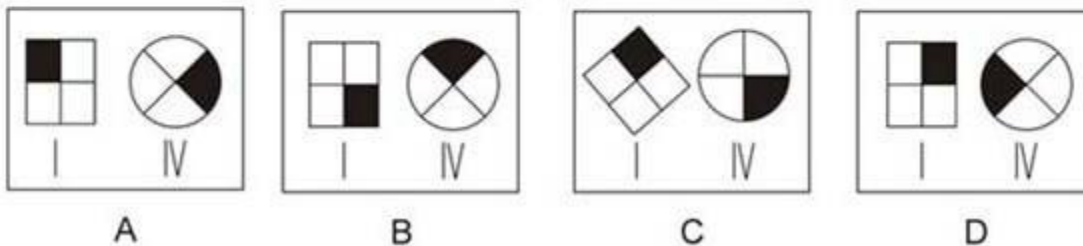3. Complete the pattern of the incomplete figure by selecting one of the figures from the 4 options A, B, C and D.

A   B   C   D

4. Select a figure from the options A,B,C,D or E , the contents of which may replace the question marks in the problem figure such that figure III is related to figure IV in the same way as figure I is related to figure II?

Problem Figure

A   B   C   D
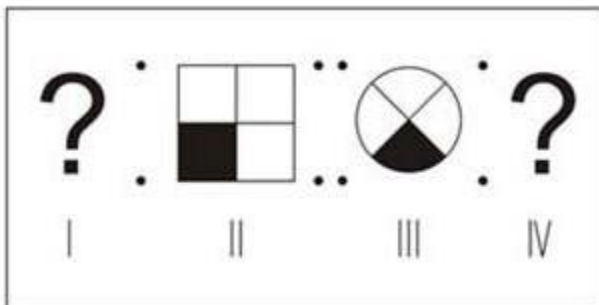
5. How many circles are there in the figure given below:
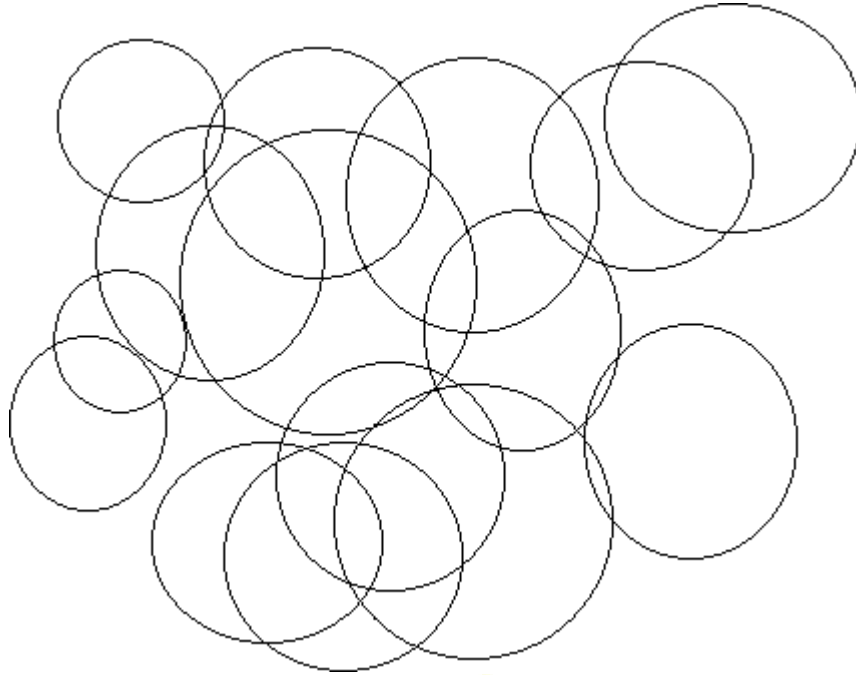
(A) 13
(B) 14
(C) 15
(D) 16
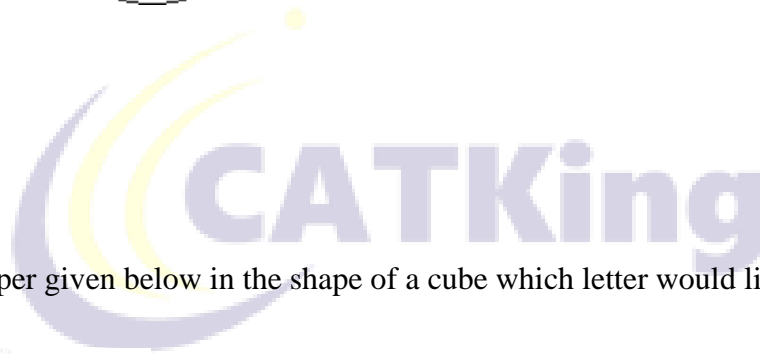
6. On folding the paper given below in the shape of a cube which letter would lie opposite T?

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

7. 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, and D in which figure two dots can be placed using a similar logic?
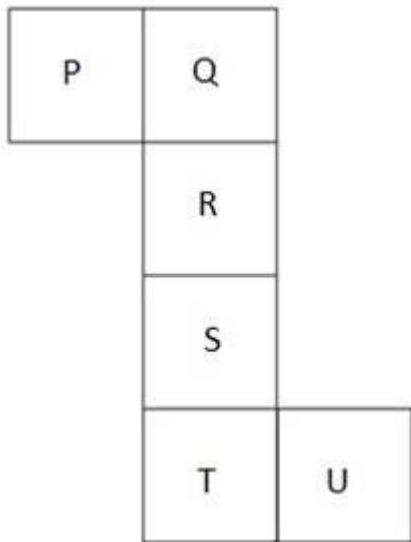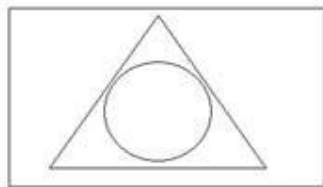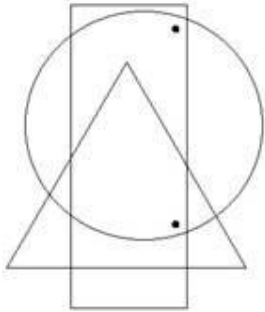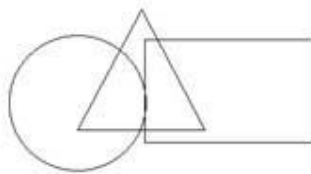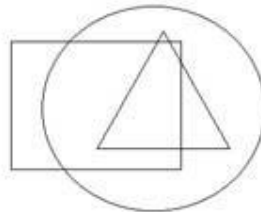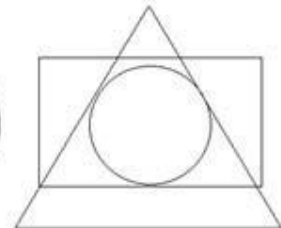

A

B

C

D

LOGIC (5Q x 2 marks = 10 marks. Negative marking – 0.5 mark)

In a particular college there are 4 lectures conducted every day called lecture no.1 (from 9am to 10am) lecture no.2 (from 10am to 11am) lecture no.3 (from 11am to 12 noon) and lecture no.4 (from 12noon to 1pm).

Mr. A teaches four different courses at the college namely the Arts Course, the Science Course, the Commerce Course and the Vocational Course. The college has four different classrooms in which classes are conducted Room A, Room B, Room C and Room D. On a particular day Mr. A teaches one lecture for each of the four courses and each lecture is conducted in a different classroom. The following additional information is provided.

I. There was a one lecture gap between Mr. A conducting the lecture for the Arts Course and conducting the lecture in Room C
II. Out of the lectures conducted in Room D and the lecture conducted for the Vocational Course one of them was conducted as Lecture no.1 and the other as Lecture no.4
III. Mr. A conducted the lecture in Room B before Room C
IV. The Lecture for the Arts Course was not conducted in Room A
V. The Lecture in Room A was conducted before the lecture that was conducted for the Vocational Course
VI. The Lecture for the Commerce Course was conducted before the lecture for the Science Course

1. Which room did Mr. A conduct the lecture in immediately after he conducted the lecture for the Arts Course?

    (A) He taught the lecture in Room A
    (B) He taught the lecture in Room B
    (C) He taught the lecture in Room C
    (D) He taught the lecture in Room D

2. In which room did Mr. A conduct the lecture for the Commerce Course?

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

3. How many lectures were conducted before the lecture was conducted in Room C?

    (A) 0
    (B) 1
    (C) 2
    (D) 3

4. Which of the following statements must be true as per the information provided?

    (A) The lecture in Room A was conducted before the lecture in Room B
    (B) The lecture for the Vocational course was the first lecture conducted
    (C) Two lectures were conducted between the lectures in Room A and Room C
    (D) None of the above options

5. Which of the following statements is true regarding Lecture No.3?

   (A) It was conducted in Room C
   (B) It was conducted for the Vocational Course
   (C) It was conducted in Room A
   (D) It was conducted for the Arts Course

IQ (5Q x 2 = 10 marks. Negative marking – 0.5 mark)

1. If in a certain code, LAMENTING has been coded as 314552957, in that language what will be the code for DRAMATIC?

2. Given below is a familiar saying with all the vowels as well as some of the spacing between words removed . Provide the complete saying as the answer

   DNT THRS S YWLD HVTHM DT Y

3. Find the missing term in the series represented by?

   5,28,57,88,125, ?

4. If 18th October 2012 was a Thursday, what will be the day on 22nd November 2013?

5. What will be the middle digit of the 2nd lowest number after the positions of the digits in each number is reversed?

   182, 971, 652, 897, 469, 556

NUMERACY (10Q x 3 = 30 marks. Negative marking – 1 mark)

1. What is the last digit of the number 1458793^{60} ?

   (A) 3
   (B) 9
   (C) 7
   (D) 1

2. A bucket contains 1 litre of milk. A milkman removes 10% of the content of the bucket and replaces it with water. The next day the milkman again does the same operation and removes 10% of the contents of the bucket and replaces it with water. He then sells the one litre of milk to a customer at the rate of $12 per litre. If the milkman had purchased the milk at $10 per litre what is his profit percentage on his cost price keeping in mind that due to his mixing he was able to save some additional milk?

   (A) 20%
   (B) 48.15%
   (C) 50%
   (D) 55.45%

3. How many numbers are there between 1 and 101 which are multiples of either 5 or 7 or both 5 and 7?

   (A) 36
   (B) 34
   (C) 32
   (D) 20

4. In a knockout tennis tournament there are 519 players signed up. How many matches will be required to be played in the tournament?

   (A) 210
   (B) 211
   (C) 518
   (D) 519

5. Sam observed that when it is 10am in City A it is 4pm on the previous day in City B.
   Sam boards a flight from City A that takes off at 3am City A local time and arrives in City B at 7am City B local time.
   On the return leg of the journey from City B to City A the plane flew at double the speed and took half the time. If Sam boarded the plane at 3am City B local time at what time would he arrive in City A. (ignore the day on which the flight will arrive in City A)

   (A) 4am City A time
   (B) 8pm City A time
   (C) 7 am City A time
   (D) None of the other options

6. A man invested a certain sum of money at 8% compound interest compounded annually. While looking at his investment statement he realized that the interest he earned in the second year was $200 more than the interest he earned in the first year. What was the amount invested by him?

(A) $18,780
(B) $24,675
(C) $31,250
(D) $35,500

7. In the below circle O is the centre of the circle. Angle XOY measures 60 degrees. The radius of the circle is 21cm. What is the length of the arc XY?
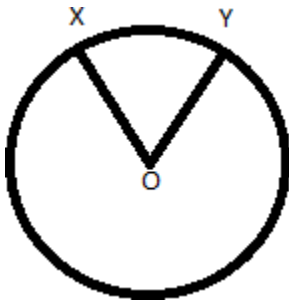
(A) 21cm
(B) 22cm
(C) 23cm
(D) 24cm

8. Given below is a sequence which continues infinitely

½, ¼, 1/8, 1/16…..

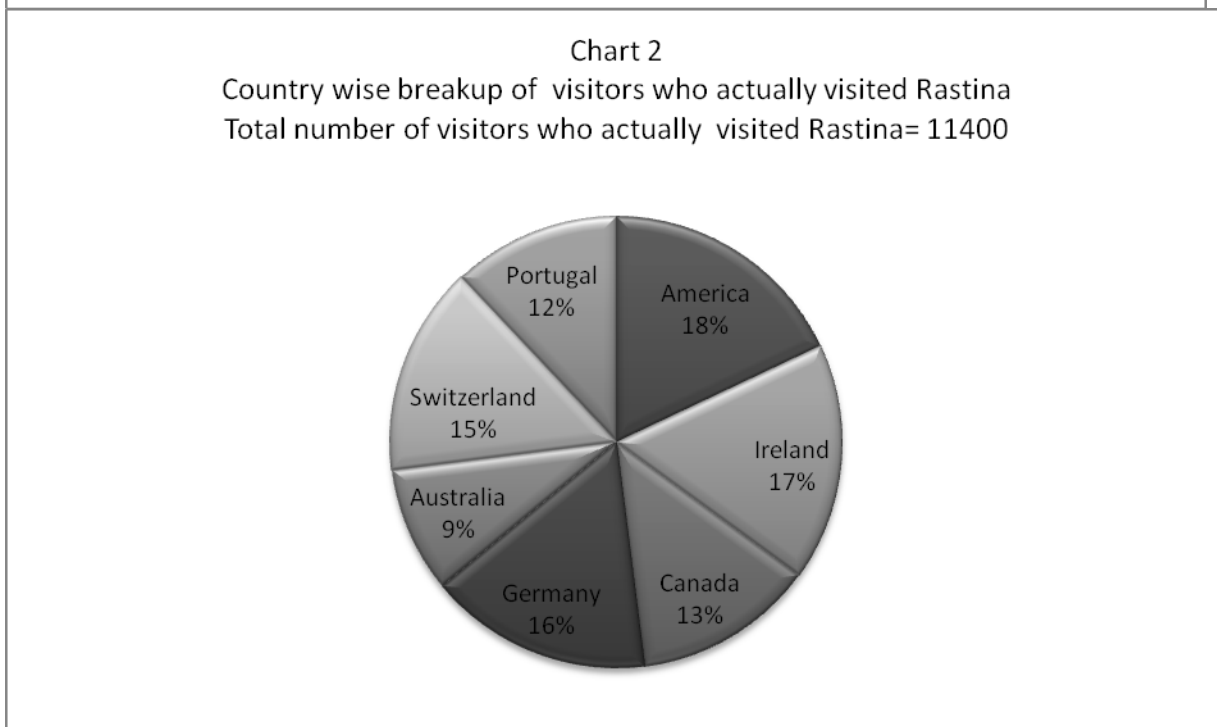| Column A	Column B
The sum of the 12th and 13th terms of the above sequence	The sum of the 11th and 14th terms of the above sequence

(A) The quantity in Column A is greater
(B) The quantity in Column B is greater
(C) The two quantities are equal
(D) The relationship cannot be determined from the information given

Questions 9 and 10 are on the chart given below

Study the graph and answer the questions given below:

The tourism minister of Rastina is studying the following two charts. The first chart shows the number of visitors that were expected to visit Rastina from different countries during the year 2012-2013. Unfortunately due to a flu epidemic hitting the country during the year many visitors canceled their booking. The second chart shows the country wise breakup of the actual number of visitors which visited Rastina during 2012-2013

Chart 1
Country wise breakup of visitors who were expected to visit Rastina
Total number of visitors who were expected to visit Rastina: 17100

- Portugal 16%
- America 22%
- Switzerland 12%
- Ireland 15%
- Australia 8%
- Germany 17%
- Canada 10%

Chart 2
Country wise breakup of visitors who actually visited Rastina
Total number of visitors who actually visited Rastina= 11400

- Portugal 12%
- America 18%
- Switzerland 15%
- Ireland 17%
- Australia 9%
- Germany 16%
- Canada 13%

9. What percentage of visitors who were expected to visit Rastina from Australia actually visited ?

   (A) 62%
   (B) 55%
   (C) 75%
   (D) 80%

10. The number of visitors who **actually** visited Rastina from Germany and America together exceeds the number of visitors who were **expected** to visit from Australia and Canada together by:

   (A) 798
   (B) 888
   (C) 724
   (D) 814

READING COMPREHENSION (5Q x 3 = 15 marks. Negative marking – 1 mark)

The beginnings of the Green Revolution are often attributed to Norman Borlaug, an American scientist interested in agriculture. In the 1940s, he began conducting research in Mexico and developed new disease resistance high-yield varieties of wheat. By combining Borlaug's wheat varieties with new mechanized agricultural technologies, Mexico was able to produce more wheat than was needed by its own citizens, leading to its becoming an exporter of wheat by the 1960s. Prior to the use of these varieties, the country was importing almost half of its wheat supply.

Due to the success of the Green Revolution in Mexico, its technologies spread worldwide in the 1950s and 1960s. The United States for instance, imported about half of its wheat in the 1940s but after using Green Revolution technologies, it became self-sufficient in the 1950s and became an exporter by the 1960s.

In order to continue using Green Revolution technologies to produce more food for a growing population worldwide, the Rockefeller Foundation and the Ford Foundation, as well as many government agencies around the world funded increased research. In 1963 with the help of this funding, Mexico formed an international research institution called The International Maize and Wheat Improvement Center.

Countries all over the world in turn benefited from the Green Revolution work conducted by Borlaug and this research institution. India for example was on the brink of mass famine in the early 1960s because of its rapidly growing population. Borlaug and the Ford Foundation then implemented research there and they developed a new variety of rice, IR8, that produced more grain per plant when grown with irrigation and fertilizers. Today, India is one of the world's leading rice producers and IR8 rice usage spread throughout Asia in the decades following the rice's development in India.

Along with the benefits gained from the Green Revolution, there have been several criticisms. The first is that the increased amount of food production has led to overpopulation worldwide. The second major criticism is that places like Africa have not significantly benefited from the Green Revolution. The major problems surrounding the use of these technologies here though are an **exiguity** of infrastructure, governmental corruption, and insecurity in nations. Despite these criticisms though, the Green Revolution has forever changed the way agriculture is conducted worldwide, benefiting the people of many nations in need of increased food production.

1. What is the tone of the above passage?

    (A) Candid
    (B) Descriptive
    (C) Analytical
    (D) Lamenting
    (E) Sarcastic

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

   (A) Development
   (B) Lack
   (C) Requirement
   (D) Destruction
   (E) Misuse

3. What is the main purpose of the above passage?

   (A) To explain the birth of the green revolution and describe its spread across the globe
   (B) To highlight the reasons for success of the green revolution as compared to political revolutions
   (C) To showcase the ways in which the Green Revolution spread worldwide but could not be implemented in Africa
   (D) To bring to attention how the benefits the benefits of the Green Revolution are taken for granted
   (E) None of the other options

4. Which of the following has been mentioned in the above passage?

   (A) The Green Revolution was a success in every region of the globe
   (B) The use of Green Revolution technologies exponentially increased the amount of land utilized for food production.
   (C) Increase in the area under irrigation has led to rise in the salinity of the land.
   (D) The reason why the 'modern varieties' of crop produced more than traditional varieties is that they are more responsive to controlled irrigation and to fertilizers.
   (E) None of the other options

5. What does the last paragraph of the passage imply?

   (A) There are several disadvantages of the Green Revolution and its implementation should have been given a second thought
   (B) The Green Revolution could only work in countries which had a developed infrastructure
   (C) Though the Green Revolution has had some deficiencies its advantages far outweigh its disadvantages
   (D) The Green Revolution's failure in Africa showcases how corruption can ruin scientific initiatives.
   (E) None of the other options

GENERAL KNOWLEDGE (14Q x 1 = 14 marks. Negative marking – 1 marks)

Mark True (T) or False (F)

1. Kevin Rudd beat Julia Gillard and is the current prime minister of Australia   T   F

2. Quantitative Easing or QE is term used to reduce liquidity in the economy   T   F

3. Sheryl Sandberg is the COO of Google   T   F

4. The newly released Superman movie "Man of Steel" has been directed by Zach Snyder   T   F

5. The price of Gold has dropped sharply in the last 2 months   T   F

6. In May 2013, Roberto Azevedo from Brazil was elected as the next Director General of the World Trade Organization   T   F

7. The currency of Switzerland is the Euro   T   F

8. In May 2013 Canadian astronaut, Chris Hadfield recorded the first music video in space   T   F

9. Shinzo Abe is the current Prime Minister of Japan   T   F

10. LeBron James was named NBA's Most Valuable Player of the 2012-13 Basketball season   T   F

11. A.G. Lafley was appointed CEO of Procter and Gamble in May 2013   T   F

12. The fourth generation core processor announced by Intel in June 2013 is codenamed Haswell   T   F

13. Ra is the symbol of the chemical element Radium   T   F

14. Athena was the Greek goddess of beauty   T   F

ANSWERKEY FOR SPJAT SAMPLE PAPER

DIAGRAMMATIC REASONING

1	D
2	A
3	D
4	A
5	C
6	C
7	C

NUMERACY

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

LOGIC

1	A
2	D
3	D
4	D
5	C

READING COMPREHENSION

1	B
2	B
3	A
4	E
5	C

IQ

1	49141293
2	Do unto others as you would have them do to you
3	166
4	Friday
5	5

GK

1	T
2	F
3	F
4	T
5	T
6	T
7	F
8	T
9	T
10	T
11	T
12	F
13	T
14	F