

### SPJAT SAMPLE PAPER 3

**Time: 50 minutes**

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

STUDENT NAME

S P JAIN'S GMBA REGISTRATION 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

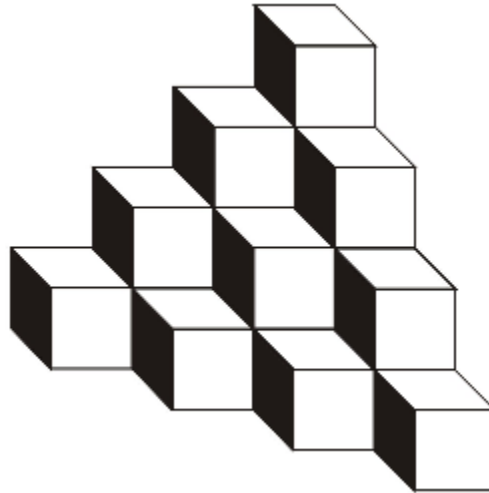
## APPROPRIATION OF MARKS

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

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

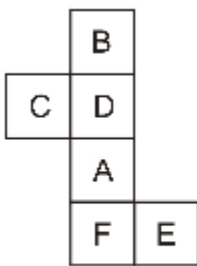
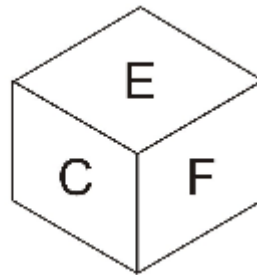
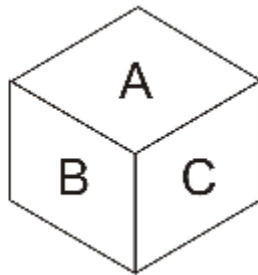
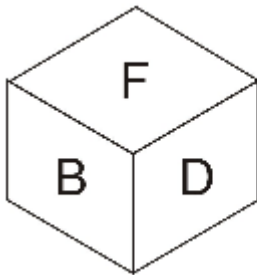
**DIAGRAMMATIC REASONING**

1. How many cubes are there in the figure given below?

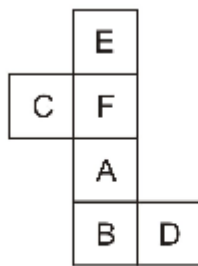


- (A) 10
- (B) 16
- (C) 20
- (D) 24

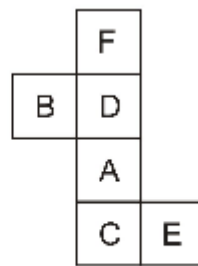
2. A dice has the letters A, B, C, D, E and F printed on its six sides. Shown below are different views of the dice when it is thrown three times. Choose the option that will be formed when the dice is unfolded?



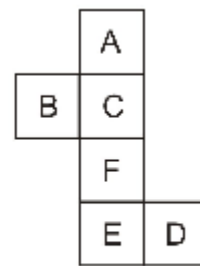
**A**



**B**

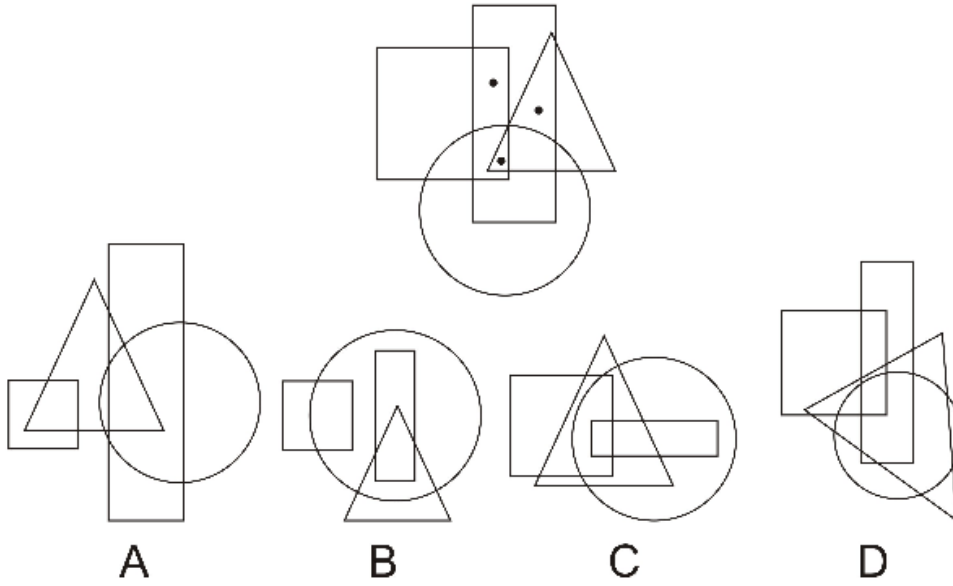


**C**

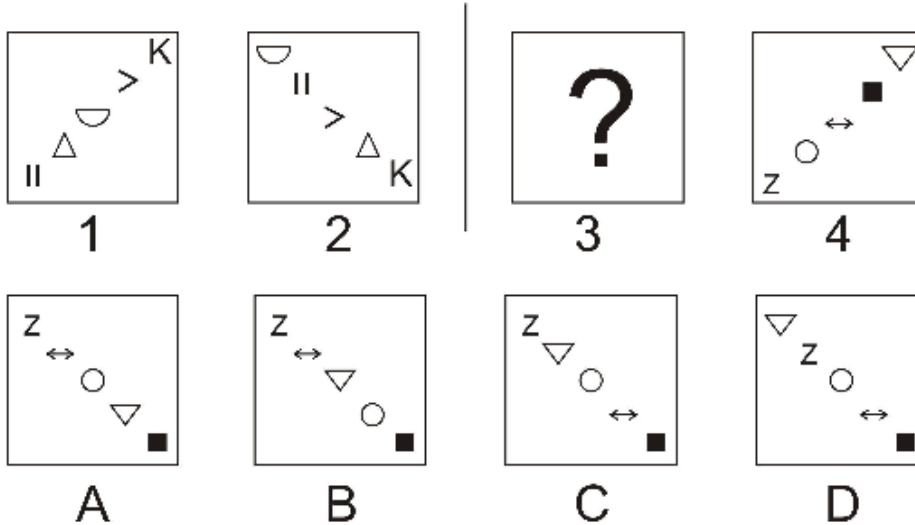


**D**

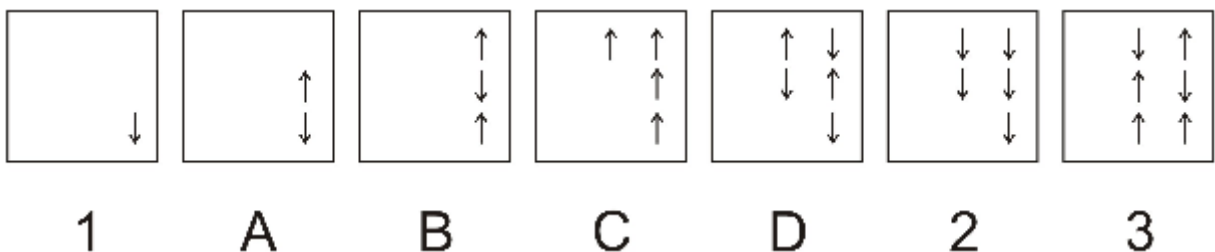
3. From the four options given select the option which satisfies the same condition of placement of the dots as given in the top figure.



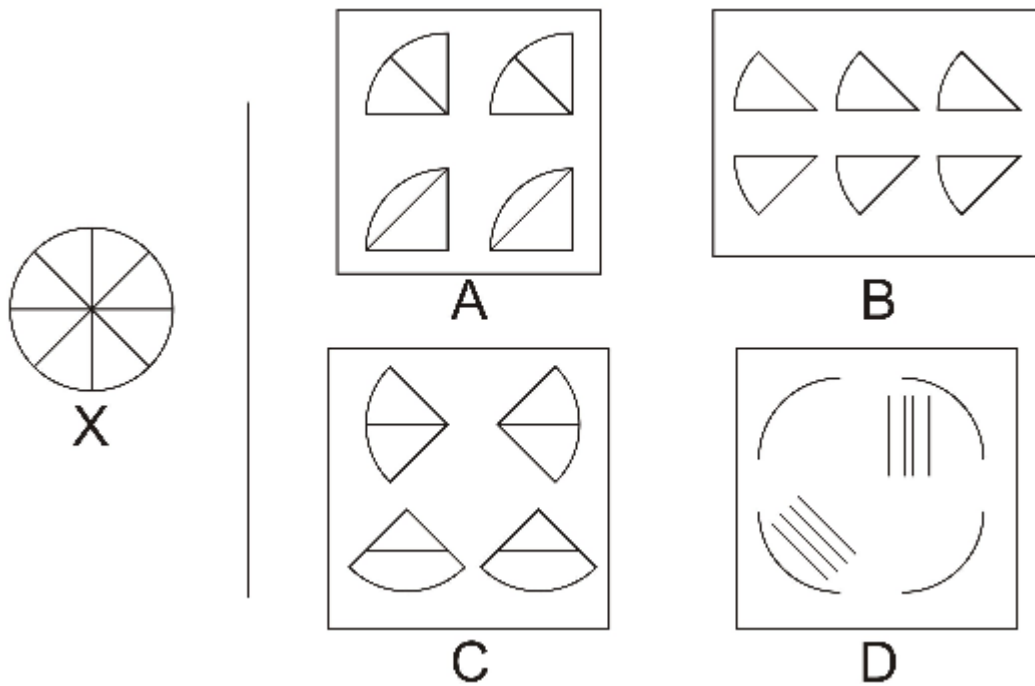
4. Given below the figures labeled 1 and 2 share a particular relationship. From among the options A, B, C and D select the option which shares a similar relationship with the figure labeled 4 and can replace the question mark in the figure labeled 3.



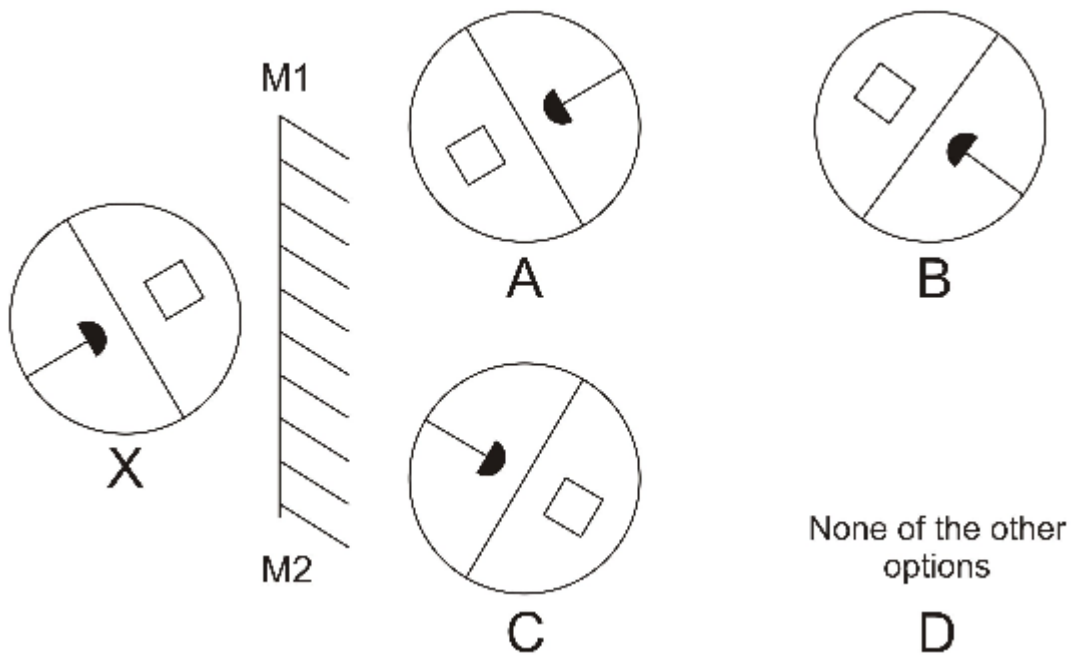
5. Given below is a series of seven figures. It is known that the figures labeled 1, 2 and 3 are correctly placed in the series. However out of the figures labeled A,B,C and D one of them is incorrect and does not fit in correctly in the series. Identify the incorrect figure.



6. The figure labeled X on the left hand side is broken into components. Which of the options out of A, B, C and D correctly represent all the components that make up figure X?



7. The figure labeled as X is held up against a mirror M1-M2. What will be the resulting mirror image of the figure labeled X?



## LOGIC

There are six persons in the Smith family named U, V, W, X, Y and Z. There are three males and three females in the family. In the family there are two married couples and two unmarried individuals. Each of the family members works at a different company. The names of the company they work at are Titan Corp, Energy Inc, Hull Corp, Financial Corp, Barron Industries and Stanley Industries.

V works at the Barron Industries and is Z's sister. W does not work at Stanley Industries. Y works at Energy Inc and is U's mother in law. X is Z's father and he does not work at Titan Corp or Stanley Industries. U is W's wife. Z works at Hull Corp.

1. How many sons does Y have?
  - (A) None
  - (B) One
  - (C) Two
  - (D) Three
  
2. Which of the following is one of the married couples?
  - (A) Y and V
  - (B) V and U
  - (C) X and U
  - (D) None of the other options
  
3. How is Z related to Y?
  - (A) Son
  - (B) Mother
  - (C) Daughter
  - (D) Father
  
4. At which company does U work?
  - (A) Titan Corp
  - (B) Energy Inc
  - (C) Financial Corp
  - (D) Stanley Industries
  
5. Who among the following works at Titan Corp?
  - (A) U
  - (B) V
  - (C) W
  - (D) X

## IQ

1. What number should replace the question mark in the below table?

4X	11Z	7Y
56Y	?	112X
7Y	10X	8Z

2. What comes next in the series?

5, 16, 60, 236, 940,

3. If 4<sup>th</sup> April 2011 was a Monday what was 27<sup>th</sup> January 2010?

4. Given below is a word. By rearranging the letters in this word how many meaningful words can be made (excluding the word which is given below). If no meaningful words can be made by rearranging the letters then write the answer as 'None'

'VASTER'

5. The houses of seven friends P, Q, R, S, T, U and V are located as follows.

T's house is 6km to the west of Q's house

S's house is exactly in the middle of the houses of Q and T

R's house is exactly 3km to the west of P's house.

U's house is 6km to the north of P's house

V's house is 6km to the east of R's house

S's house is 6km to the south of V's house

Which two friends live the farthest apart from each other?

## NUMERACY

1. What is the remainder when  $1027^{199}$  is divided by 5?  
  
(A) 1  
(B) 2  
(C) 3  
(D) 4
  
2. If  $x=8y+11$  then which of the following cannot be a divisor of  $x$ . ( $y$  is a whole number)?  
  
(A) 3  
(B) 5  
(C) 7  
(D) 12
  
3. Farm A had an average output of 300 kgs of wheat per acre. Farm B had an average output of 350 kgs of wheat per acre. It is known that Farm B's area is 15 acres less than Farm A's. It is also known that Farm B in total harvested 2000 kgs of wheat more than Farm A. What is the area of Farm A?  
  
(A) 130 acres  
(B) 135 acres  
(C) 145 acres  
(D) 160 acres
  
4. The area of a circle is increased by 800%. By what percent has the diameter of the circle increased?  
  
(A) 100%  
(B) 200%  
(C) 300%  
(D) 600%
  
5. Pipe A can fill a tank in 3 hours. Pipe B can empty the same tank in 2 hours. If the tank is initially two thirds full then in how many hours will the tank be completely empty in if both the pipes are turned on simultaneously?  
  
(A) 2 hours  
(B) 3 hours  
(C) 4 hours  
(D) 5 hours
  
6. The profit earned when an article is sold for \$ 600 is double the loss incurred when the article is sold for \$150. At what price should the article be sold if a profit of 20% is to be earned?  
  
(A) \$150  
(B) \$300  
(C) \$360  
(D) \$400

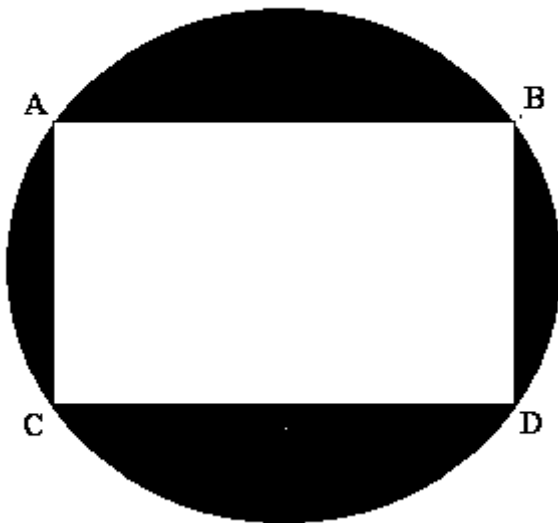


7. Vivian travels by car to office at an average speed of 50 kilometers per hour. She drives home by the same route at an average speed of 100 kilometers per hour.

Based on the information given above define the relationship between the values given in the below columns.

Column A	Column B
Average Speed of Vivian for both legs of her journey to and fro from the office	75 kilometers per hour

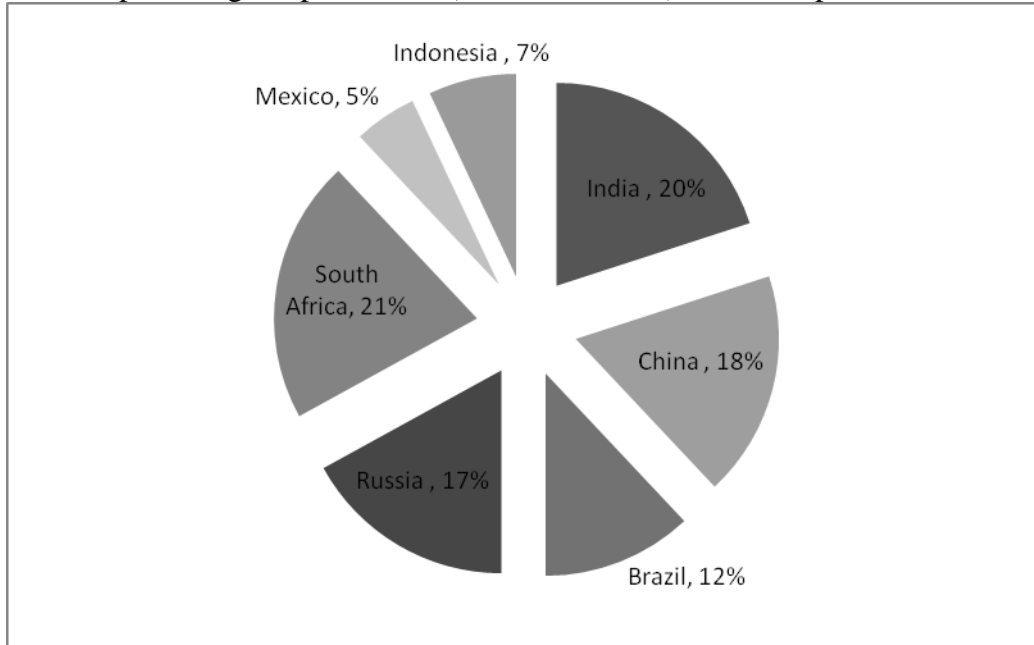
- (A) The quantity in Column A is greater  
(B) The quantity in Column B is greater  
(C) The two quantities are equal  
(D) The relationship cannot be determined from the information given
8. In the below figure the length of the side AB is 12 cm and the length of side AC is 9 cm. Determine the approximate area of the shaded region?



- (A)  $15 \text{ cm}^2$   
(B)  $24 \text{ cm}^2$   
(C)  $35 \text{ cm}^2$   
(D)  $69 \text{ cm}^2$

Question 9 and 10 are on the graph given below

Given below is a chart that shows how the production of Lydia Corporation is spread across the world. The company has manufacturing facilities in seven countries producing scarves. And given below is the percentage of production (in terms of units) that takes place in each country.



9. If it is known that Brazil produces 300,000 scarves then how many more scarves does India produce than Indonesia?

- (A) 25,000
- (B) 80,000
- (C) 175,000
- (D) 325,000

10. Lydia decides to close its Russian Operations. As a result of this, production in Mexico is increased by 20% from current levels of production in the country. What percentage of Lydia's production takes place in Brazil after these changes?

- (A) 12.00%
- (B) 13.65%
- (C) 14.28%
- (D) 16.24%

## READING COMPREHENSION

It is one of the great ironies of the age in which we live that the cacophony of computer-based, electronically produced information that suffuses our every waking moment is carried into our consciousness on patterned waves of just two signs: *1* and *0*. This, of course, is no news. We have all been made aware since the dawn of the present Information Age that the ongoing revolution in computing technology rests on a system of binary coding. I would clarify here that by "binary coding," I mean a system of communication based on units of information that take the form of strings of signs or signals, each individual unit of which represents one or the other of a pair of alternative (usually opposite) identities or states; for example, the signal may be on or off (as in a light switch), positive or negative (as in an electrical current), or 1 or 0 (as in computer coding). One can argue that it is the simplicity of binary coding that gives computing technology and its information systems their great flexibility and seemingly inexhaustible expansiveness. Let us explore an earlier and potentially equally powerful system of coding information that was at home in pre-Columbian South America and which, like the coding systems used in modern computer language, was structured primarily as a binary code.

After the above *grandiose* introduction, it may come as a letdown to the reader to learn that we do not yet know, in fact, how to interpret or read the majority of the information that is presumably encoded in the recording system that I describe and analyze. The system in question is that of the Inca khipu. Khipu (knot) is a term drawn from Quechua, the lingua franca and language of administration of the Inca Empire. The khipu were knotted-string devices that were used for recording both statistical and narrative information, most notably by the Inca but also by other people of the central Andes.

I estimate from my own studies and from the published works of other scholars that there are 600 extant khipu in public and private collections around the world. Although provenience data are notoriously sketchy for museum samples of khipu, what information we do have tends to support the conclusion that most samples were looted from grave sites along the central and south coast of Peru during the late nineteenth and early twentieth centuries. A recent discovery of 32 khipu in burial chambers in the northern Andes is consistent with the presumed funerary disposal of these devices

Following this initial reference to khipu, accounts of these devices appear with considerable frequency in the Spanish chronicles and documents recorded throughout the first few decades of the establishment of the Spanish colony in the land of the Incas. Khipu were one of the principal sources of information used by the Spaniards as they began to compile records pertaining to the former inhabitants of the empire. The former Inca record keepers--known as *khipukamayuc* (knot maker/keeper)--supplied colonial administrators with a tremendous variety and quantity of information pertaining to censuses, tribute, ritual and calendrical organization, genealogies, and other such matters from Inca times. While numerous colonial writers in Peru left accounts of the khipu that inform us on certain features and operations of these devices, none of these accounts is extensive enough to put us on solid ground in our attempts today to understand exactly how the Inca made and consulted these knotted and dyed records.

An issue of utmost concern to several scholars who are intensively studying these devices today centers around the question of whether the khipu recording system should be characterized as a system of "mnemonics," or if it may in fact have constituted a system of "writing." In a word, the matter under dispute is whether khipu were (respectively) string-and-knot-based configurations whose purpose was to provide "cues" to aid the Inca administrator who made any particular sample to recall a specific body of memorized information, or if these devices were constructed with conventionalized units of information that could be read by khipu makers throughout the empire. I should state that I am primarily an adherent of the latter of these two starkly differentiated and ultimately caricatured views of khipu records. In fact, I suspect that the final solution we will arrive at regarding the types of information retained on these devices will look more like a combination of the two forms of record keeping alluded to above.

1. In what type of publication would the above paragraph appear?
  - (A) In a general interest magazine
  - (B) The growth of art and culture during the Renaissance
  - (C) In a history text book on South American History
  - (D) In a book on record keeping techniques of the world
  - (E) None of the other options
  
2. What purpose does the first paragraph serve?
  - (A) To show the difference between recordkeeping in the modern era versus how records were maintained in the past
  - (B) To emphasize the contribution of the Inca's to the functioning of the modern day computer and the binary system
  - (C) To showcase the many advances which were made by the Inca's across different avenues of science and technology
  - (D) To highlight the usage and existence of binary systems of record keeping across different time periods
  - (E) None of the other options
  
3. Which of the following statements is not correct as per the information mentioned in the passage?
  - (A) Even today most of the information stored in khipu's cannot be interpreted
  - (B) The khipu was generally disposed during the funeral of individuals
  - (C) The khipu was used as a record keeping device not only by the Inca's but several other tribes as well
  - (D) The Inca's recorded information related to population numbers and rituals through the use of the khipu
  - (E) All of the above statements are correct as per the information mentioned in the passage
  
4. What is the central argument among scholars regarding the characterization of the khipu records?
  - (A) Whether khipu records can be seen as a valid form of record keeping or just a random way of coding information subject to the whims of the record keeper
  - (B) Whether the khipu records had a consistent system of interpreting them or was each record keeper customizing them to serve as an aid to his memory
  - (C) Whether the khipu records are of any historical value or just an oddity of the South American region
  - (D) Whether the Inca's should be given credit for the binary system used in modern computing as they invented the khipu system hundreds of years ago
  - (E) None of the other options
  
5. What does the word 'grandiose' mean as used in the passage?
  - (A) Concise
  - (B) Lengthy
  - (C) Humble
  - (D) Extravagant
  - (E) Immaculate

# ANSWERKEY FOR SPJAT SAMPLE PAPER 3

## DIAGRAMMATIC REASONING

- |   |   |
|---|---|
| 1 | C |
| 2 | C |
| 3 | C |
| 4 | B |
| 5 | A |
| 6 | D |
| 7 | B |

## LOGIC

- |   |   |
|---|---|
| 1 | C |
| 2 | D |
| 3 | A |
| 4 | D |
| 5 | C |

## IQ

- |   |               |
|---|---------------|
| 1 | 220 Z         |
| 2 | 3756          |
| 3 | WEDNESDAY     |
| 4 | TWO WORDS (2) |
| 5 | Q AND U       |

## NUMERACY

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

## READING COMPREHENSION

- |   |   |
|---|---|
| 1 | D |
| 2 | D |
| 3 | E |
| 4 | B |
| 5 | D |