Each question carries one mark, unless otherwise stated   **Total time: 100 Minutes**

Section 1- Reasoning Ability Test (25 minutes)

Data Interpretation

Directions: Answer the question given below based on the following data:

Natwarlal was a smart thief who decided to rob the three computers in a computer center, namely, Tejas, Prithvi and Vayu. He robbed the computers of one of their peripherals, attacking one computer each in every month of the first quarter of the year. Natwarlal had only three tools i.e., a screwdriver, pliers and a wire cutter. Each month he used a different tool. Finally, his booty comprised a printer, a keyboard and a monitor and he was able to build his own computer system. In January, Natwarlal robbed Prithvi. He did not use the wire cutter in that month. Poor Vayu lost its keyboard when pliers did their trick. Monitor was susceptible only to the edge of the wirecutter. March was the unlucky month for Tejas.

1. Which tool was used in Tejas?
   a) Screwdriver
   b) Pliers
   c) Wire cutter
   d) Can't be determined
2. In which month did Natwarlal acquire the keyboard?
   a) January
   b) February
   c) March
   d) Can't be determined
3. Which peripheral did Prithvi lose?
   a) Printer
   b) Keyboard
   c) Monitor
   d) Can't be determined
4. The month in which the wire cutter was used is _____.
5. Which computer lost its monitor?
   a) Prithvi
   b) Tejas
   c) Vayu
   d) Can't be determined

Data Sufficiency

Direction: Each of the questions below consists of a question and two statements numbered I and II given below it. You must decide whether the information provided in the statements is sufficient to answer the question. Consider the following while answering the questions:

- Mark 1 as the answer, if the question can be answered by using one of the statements alone but cannot be answered using the other statement alone.
- Mark 2 as the answer, if the question can be answered by using either statement alone.
- Mark 3 as the answer, if the question can be answered by using both statements together but cannot be answered using either statement alone.
- Mark 4 as the answer, if the question cannot be answered even by using both statements together.

1. How many liters of orange juice can an orange orchard of 375 orange trees produce?
   I.   Each tree produces an average of 400 oranges.
   II.   Each orange can give one cup of orange juice.
   a) 1
   b) 2
   c) 3
   d) 4

2. Three consecutive integers X, Y and Z are not necessarily in that order. Which is the highest number?
   I.   The average of X and Y is Z.
   II.   X is greater than Y.
   a) 1
   b) 2
   c) 3
   d) 4

3. Maryanne has Rs. 4 in 50-paisa and one-rupee coins. How many 50-paisa coins does she have?
   I.   She has less 50-paisa coins than one-rupee coins.
   II.   She has a total of 5 coins.
   a) 1
   b) 2
   c) 3
   d) 4

4. Zinc, copper, aluminum and tin are melted together in the ratio 8: 6: 3:1 to form a mass. Zinc costs Rs. 30 per kilogram. What is the cost of copper per kilogram?
   I.   The cost of alloy is Rs. 150 per kilogram.
   II.   Cost of aluminum and copper per kilogram is same.
   a) 1
   b) 2
   c) 3
   d) 4

5. Is 2000 the average score in the GRE?
   I.   The highest GRE score is 2390 and the lowest score is 880.
   II.   Half of those who take the GRE score above 2000 and the other half score below 2000.
   a) 1
   b) 2
   c) 3
   d) 4

Deductive Reasoning

Directions: Each question contains five statements followed by four choices. Choose the correct statement(s) which are logically related. For multiple response questions, full marks will be awarded only if all the correct choices are selected and no wrong choice(s) is / are selected. Partial marks will be awarded if some correct choices are selected and no wrong choice(s) is / are selected.

1. Please select the three correct choices:

   A. All nurses are in demand.
   B. No doctor is in demand.
   C. Some nurses are efficient.
   D. Some nurses are in demand.
   E. Some in demand are efficient.

2. Please select the three right choices:

   A. Rohan is a magician.
   B. All jesters are magicians.
   C. Some jesters are criminals.
   D. Some magicians are criminals.
   E. Rohan is a jester.

3. Please select the right set of logically related combination:

   A. Some books are not novels.
   B. All novels are fictions.
   C. Some novels are fictions.
   D. Only novels are fiction.
   E. Some books are not fiction.
      a) ADE
      b) ABC
      c) CED
      d) DBA

4. Please select the right set of logically related combination:

   A. Some painters are farmers, and some are not.
   B. Raman is a farmer.
   C. All painters are choreographers.
   D. Raman is a painter.

E. Some farmers are choreographers.
   a) BAD
   b) CDE
   c) ACE
   d) DAB

5. Please select the right set of logically related combination:

   A. Some fishes are not carnivorous.
   B. All fishes are swimmers.
   C. All fishes are carnivorous.
   D. Some swimmers are not carnivorous.
   E. Some swimmers are carnivorous.
      a) DCB
      b) EDA
      c) BEC
      d) None of the above

Section 2 – Technical Ability Test (35 Minutes)

Mathematical Reasoning

1. Consider LET + LEE = ALL where every letter represents a unique digit from 0 to 9, find out (A+L+L) if E=5.
   a) L
   b) LE
   c) E
   d) A
   e) TL

2. 5 chocolates need to be placed in 3 containers. Each container can hold all the 5 chocolates. In how many ways can the chocolates be placed in the containers if no container can be empty and all chocolates and containers are different?
   a) 27
   b) 150
   c) 300
   d) 60
   e) 320

3. How many arrangements of the letters of the word "KEYBOARD" can be made if the vowels are to occupy only odd places in the word arrangement?
   a) 2880
   b) 2800
   c) 2780
   d) 576
   e) None of these

4. Fill in the missing number in the sequence?
   0, 2, 5, 10, 17, __, 41

5. 8 Liters are drawn off from a can filled with milk and it is then filled with water. This operation is performed three more times. The ratio of the quantity of milk now left in the can to that of the total mixture is 16:81. How much milk did the can hold originally?
   a) 28 liters
   b) 44 liters
   c) 24 liters
   d) 32 liters
   e) 36 liters

Logical Reasoning

Today is Jon Snow's wedding and he has invited his 7 friends (Petyr, Qhorin, Ramsay, Sansa, Theon, Umar, Varys) to attend the wedding. Not all his friends like each other and hence they come to the wedding as per the following conditions:

- If Petyr comes, then Umar does not come
- If Sansa comes, then Theon does not come
- If Theon does not come, then Ramsay does not come
- If Ramsay does not come, then Petyr and Qhorin come
    1. If Qhorin comes, then who must opt not to come to the wedding?
        a) Ramsay
        b) Umar
        c) Theon
        d) Petyr
        e) None of these
    2. If Ramsay does not come, then which of the following must be true?
        a) Petyr and Theon do not come
        b) Umar does not come
        c) Theon comes
        d) Sansa does not come and Qhorin comes
        e) None of these
    3. If Umar comes, then which of the following must not be true?
        a) Theon comes
        b) Varys comes
        c) Ramsay does not come
        d) Qhorin does not come
        e) None of these
    4. Which of the following could be the group of people attending the wedding?
        a) Theon, Umar, Petyr, Qhorin
        b) Varys, Ramsay, Umar
        c) Sansa, Qhorin, Theon, Ramsay
        d) Ramsay, Umar, Sansa
        e) None of these
    5. _____ can attend the party regardless of the presence of any other person.

Section 3 - Verbal Ability Test (20 Minutes)

Critical Reasoning

Directions: For each question in this section, select the best of the answer choices given.

1. Without new-generation computer chips made in Japan, the US Department of Defense cannot guarantee precision of its nuclear weapons. If Japan told Washington that it would no longer sell computer chips to the United States, the Pentagon would be totally helpless and in a dangerous position.   Which of the following statements strengthens the argument?
    a) The accuracy of the missiles depends on the quality of the computers.
    b) The Americans can do a little better than depend on the intelligence of other countries.
    c) Japan can completely upset the American military balance if it sells its computer chips to the Soviet Union instead of to the US.
    d) The Americans have been wise in calling off the arms race.
2. From October 1, it will be mandatory for oil refineries to blend at least 5% of ethanol with petrol. The government is enthusiastically pursuing the fuel called Jetrol, which increases efficiency. Therefore, the problem of fuel prices is also met. The government is very happy about this new finding, which it will introduce in another week's time. Which of the following statements weakens the argument?
    a) The fuel thus produced emits pollutants which are three times more dangerous than that emitted by the existing fuel.
    b) The fuel, jetrol is highly affordable by almost all segments of the population.
    c) The price of spirit is also likely to increase considerably.
    d) Many industries have now begun to manufacture ethanol.
3. Striking results have been obtained from investigations of the general standard of health of different income groups. Public school boys, who overall come from better fed families, are taller, heavier and stronger than secondary school boys. Moreover, infantile death rate among children of laborer was four times as great as it was among the well-to-do children. It can be inferred from the passage that,
    a) Children from high income groups overate.
    b) Even if poorly fed children are given better diet they cannot improve.
    c) Although nutrition is only one factor of difference, it can hardly be without significance.
    d) Public school boys are given more training and physical activities to become taller and stronger.

English Corrective Usage

Directions: Fill in the blank with the correct option that fits in grammatically and logically.

1. High prices keep out the masses and justify the high taxes, in a vicious circle that raises transaction costs and _____in the economy.
    a) Inefficiencies
    b) Intransigencies
    c) Insufficiencies
    d) Inconstancies

2. It is overwhelmingly agreed that the majority of today's emotional and physical problems _____the stresses of life.
   a) has its origin in
   b) have its origins with
   c) have their origins in
   d) have had their origins on

3. Retailing is the key to music business because it relies largely on walk-ins and ____
   a) impulse purchase
   b) immediate decisions
   c) hasty generalization
   d) unexpected transformation

4. IBM was the awesome, undisputed king of the computer trade until the entry of Microsoft and Intel. What has happened since is a _____of fortune.
   a) Startling revelation
   b) Startling reversal
   c) Startling outcome
   d) Startled accumulation

English Error Correction

Directions: In each of the following sentences, some part of the sentence or the entire sentence is underlined. Beneath each sentence you will find four ways of phrasing the underlined part. This is a test of correctness and effectiveness of expression. In choosing answers, follow the requirements of standard written English, that is, pay attention to grammar, choice of words, and sentence construction. Choose the answer that expresses most effectively what is presented in the original sentence; this answer should be clear and exact, without awkwardness, ambiguity or redundancy

1. Skeptics emphasize the fact that many of the conditions said to be related to allergy fluctuate in severity and also has a significant psychological component.
   a) and will have a significant psychological component.
   b) and have a significant psychological component.
   c) and had a significant psychological component.
   d) and also, must be having a significant psychological component.

2. The Dutch Health Council analyzed several studies and found none of the evidence that radiation from mobile phones were harmful.
   a) none of the evidence that radiation from mobile phones was harmful.
   b) not one of the evidences that radiation of mobile phones was harmful.
   c) no evidence that radiation from mobile phones was harmful.
   d) evidence that radiation from mobile phones are not harmful.

3. Fear of any particular enemy is definitely to be an instinctive quality, though it is strengthened by experience, and by the sight of fear of the same enemy in other animals.
   a) is certain to be an instinctive quality,
   b) is of a certainly instinctive quality,
   c) is certainly an instinctive quality,
   d) is surely a certain instinctive quality

4. Globalization too uses economic, <u>social and political relationships as well for creating</u> new boundaries that are not dependent on geographical proximity.
   a) social and political relationship as well for creating
   b) social and political relationships to create
   c) social and political relationships that create
   d) relationships social and political as well to create

English Error Identification

Identify the correct sentence out of the sentences given:

1) Passionate efforts on their own have the ability to become legendary, regardless of their results.
2) Passionate efforts on its own have the ability to become legend regardless of their results.
3) Passionate efforts in its own have the ability to become legendary regardless of its results
4) Passionate efforts on their own has the ability to become legendary regardless of their results.
   a) 1
   b) 2
   c) 3
   d) 4

1) Another relief has been to the airlines and shipping industry in relation of provision of hospitality, and use of hotel, boarding and lodging facilities.
2) An other relief have been to the airlines and shipping industry in relation of provision of hospitability and use of hotel, boarding and lodging facilities.
3) Another relief has been to the airlines and shipping industry in relation to provision of hospitality, and use of hotel, boarding and lodging facilities.
4) Another relief has been for the airlines and shipping industry in relation to provision of hospitality, and the usefulness of hotel, board and lodge facilities.
   a) 1
   b) 2
   c) 3
   d) 4

1) In specific terms, the power sector could gain a lot if the new scheme to tie up coal supply sources work.
2) In specific terms, the power sector can gain a lot if the new scheme to tie up coal supply sources works.
3) As specific terms, the power sector had gained a lot if the new scheme to tie up coal supply's sources work.
4) On specific terms, the power sector will be gained if the new scheme to tie up coal supply's sources work.
   a) 1
   b) 2
   c) 3
   d) 4

1) Earning endorsements from others is one of the primary challenges that we are faced with every day.
2) For earning endorsements from others for one of the primary challenges, that we have to face with every day.
3) Earning endorsements from others is one of the primary challenges that we face every day.
4) Every day to earn endorsements from others is one of the challenges we were faced with.
   a) 1
   b) 2
   c) 3
   d) 4

Reading Comprehension

Directions: Read the following passage and answer the questions that follow on the basis of what is stated / implied in the passage.

Shakespeare is known as one of the world's greatest playwrights. He has written tragedies, histories, and sonnets. But one of Shakespeare's greatest talents was writing comedies. He used many techniques when writing a comedy and some of these seem to be consistent throughout his comedies.

One of the first techniques that should be discussed is the subject matter of Shakespeare's comedies. Shakespeare always uses love and marriage as the content for his comedies. This can be seen in the comedies Much ado about nothing, As You Like it, A Midsummer Night's Dream, and The Taming of The Shrew, where the characters fall in love and get married. Another technique that Shakespeare incorporates into his comedies is the use of the lower class for comedy. Shakespeare tends to poke fun at the lower class and make them into fools in his comedies. An example of this is in Much Ado About Nothing, where Shakespeare has the constable Dogberry and his foolish assistant Verges run around acting like they are riding horses. Another example of Shakespeare's use of the lower class for comedy is in The Taming of The Shrew. In that comedy Shakespeare makes Petruchio's servants bumbling and incompetent.

The use of eavesdropping is another very important device in Shakespeare's comedies. This technique plays a major role in Much Ado About Nothing where it is used to get Benedick and Beatrice together. Also, it is used considerably in As You Like it.

The last technique is the one everyone knows and loves - the happy ending. Shakespeare consistently has a happy ending in his comedies. These happy endings usually involve the lovers finally getting together and getting married after they have solved the problem that had been keeping them apart. This can be seen in Much Ado About Nothing where the situation between Claudio and Hero was cleared up and they were able to marry. Also, Benedick and Beatrice were able to marry with the help of their friends who showed them how they truly felt about each other. Similar situations occur in Shakespeare's other plays, the overall result being a touching and enjoyable ending to the comedy.

As it can be seen Shakespeare was an excellent comedy writer. He used many techniques in his comedies and often these techniques would be reused in other comedies. With such skill in writing these plays and the intuitive use of these techniques it is no wonder why we treasure Shakespeare's comedies.

1. Which of the following can be noted about the techniques used in the comedies of Shakespeare?
   a) They were examples of works that used only a few characters.
   b) They were consistently employed in all his plays.
   c) The techniques were never repeated in his works.
   d) None of the above.
2. Which of the following is seen as being used by Shakespeare as the content for his comedies?
   a) love and marriage
   b) love marriage
   c) love in marriage
   d) marriage for love
3. As understood from the passage,
   a) Shakespeare enjoyed using the lower class to please and entertain the mass.
   b) The techniques that he adopted were consistently evident in all his comedies.
   c) Benedick and Beatrice were the main characters in The Taming of the Shrew.
   d) The happy ending technique was employed in his last comedy.
4. An example of making fads of the lower class is seen in
   a) Midsummer Night's Dream
   b) As You Like it
   c) A Comedy of Errors
   d) Much Ado About Nothing
5. According to the passage, Shakespeare's comedies are treasured because
   a) They used the concept of eavesdropping.
   b) They were also used in his histories.
   c) The ending of the comedy was generally touching.
   d) Of the intuitive use of the techniques in his comedies.

Section 4: Pseudocode Test (Each question of this section carries 2 Marks) (Time 10 Minutes)

1. What will be the outcome of the following pseudo code?

   VALIDATE_DATA
   1) Number=90
   2) If (Number>90 and Number<95) then
   3) display "Data within the range"
   4) else
   5) display "Data not within the range"
   6) end-if
      a) Data within the range will get displayed
      b) Data not within the range will get displayed
      c) Nothing will be displayed

2. The output of the following pseudocode is _____

   1) Set a = 6, b =3, c = 2
   2) if(b>a && a>c && c>b)
   3) b = a + 1
   4) Else
   5) a = b + 1
   6) End-if
   7) Print a + b + c

3. Which of the following series will be printed by the given pseudocode?

   1) Integer i, j, k, n
   2) Set j=1, k=1
   3) For (each i from 1 to 5)
   4)   print k
   5)   j=j+1
   6)   k=k+j
   7) End-for
      a) 1 3 6 10 15
      b) 1 2 3 4 5
      c) 4 6 8 10
      d) 1 1 2 3 5

4. What will be the output of the following pseudocode if a=10 and b=6?

   1) Integer func (Integer a, Integer b)
   2) Integer temp
   3) While(b)
   4) temp = a MOD b
   5) a = b
   6) b = temp
   7) End-while
   8) return a
   9) End-function func()
      a) 2
      b) 4
      c) 3
      d) 1

5. What would be the output of the following pseudocode?

   1) Integer i, j, k
   2) Set k = 6
   3) For (each i from 1 to 1)
   4) For (each j from the value of i to 1)
   5) print k+1
   6) End-for
   7) End-for

   a) 2
   b) 6
   c) 7
   d) 5

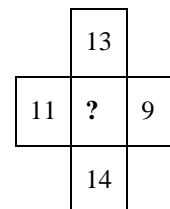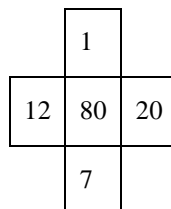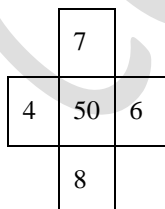## Section 5: Puzzle Solving Test (Time 10 Minutes)

1. Given is the set of nine numbers that relate to each other in a certain way. Determine the missing number in the second set. Assume the second set also works in the same way as the first set.
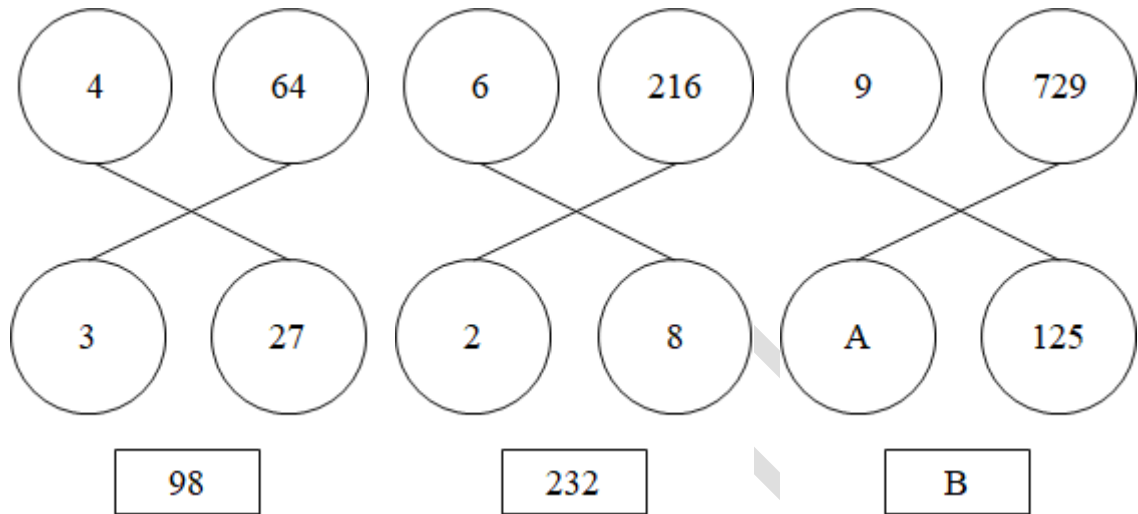   (3 Marks)

4	2	6
5	2	8
6	1	11

7	5	?
8	8	8
9	10	8

   a) 7
   b) 3
   c) 9
   d) 5

2. Find the missing term in the third figure. Assume the third figure works in the same way as the other two. (2 Marks)

	7	
4	50	6
	8	

	1	
12	80	20
	7	

	13	
11	?	9
	14	

   a) 110
   b) 94
   c) 90
   d) 98

3. Find the values of A and B in the third figure. Assume the third figure works in the same way as the other two. (2 Marks)

| 4 | 64 | 6 | 216 | 9 | 729 |
| 3 | 27 | 2 | 8 | A | 125 |

98   232   B

a) A = 5
b) A = 3
c) B = 868
d) B = 738

4. The value of **X** in the diagram below is ___ (3 Marks)

16   25   36   49   64

14   16   22   23

12   **X**   9