# NMAT-2003 <br> INSTRUCTIONS TO TEST TAKERS 

THIS TEST is of 90 minutes duration, contains 100 questions and is meant to be taken at one sitting without any rest breaks.

THE TEST has three sections. Section I has 40 Quantitative Skills questions, Section II has 35 Critical Reasoning questions and Section III has 25 English language questions.

EACH QUESTION has four options. Shade the appropriate oval against each question in the score sheet. Shade the oval completely and do not shade more than one oval, as the answer will be treated invalid.

USE HB pencils for shading the ovals.
DO YOUR scratch work on the space available in the test booklet and NOT on the answer sheet or any additional paper. You are not allowed to use any calculating devices or scales.

FOR EVERY correct answer you score 1.5 points. For every wrong answer there is a negative marking of 0.5 . It is, therefore advisable to abstain from guessing wildly.

AFTER YOU finish taking the test, score it with the help of the answer key provided.
The correct way of shading the ovals.


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## SECTION-I <br> QUANTITATIVE

## QUESTIONS : 40

## DIRECTIONS for questions 1 to 15: Choose the correct alternative.

1. The lowest number which when divided by 16,21 and 30 will leave a remainder of 5 is:
a] 1680
b] 1685
c] 1675
d] 1600
2. Father's age is 3 times son's age. Five years back, the sum of their ages was 70 years. Find the age of the son five years hence.
a] 25 years
b] 15 years
c] 12 years
d] 20 years
3. A mixture of 40 litres of spirit and water, contains $70 \%$ spirit. How much water must be added to decrease the spirit percentage from 70 to 40 ?
a] 40 litres
b] 20 litres
c] 30 litres
d] 25 litres
4. Two trains $\mathrm{A}-150 \mathrm{~m}$ long and $\mathrm{B}-100 \mathrm{~m}$ long cross each other in 1 second, as noted by a passanger in train A. If B is travelling at a speed of $180 \mathrm{~km} / \mathrm{hr}$, find the speed of A .
a] $50 \mathrm{~m} / \mathrm{s}$
b] $200 \mathrm{~m} / \mathrm{s}$
c] $150 \mathrm{~m} / \mathrm{s}$
d] $100 \mathrm{~m} / \mathrm{s}$
5. Three pipes $x, y$ and $z$ are opened simultaneously. $x$ fills a cistern in 20 minutes, $y$ in 30 minutes, while $z$ empties the cistern in 40 minutes. How soon will the tank be filled?
a] $18 \frac{1}{7}$ minutes
b] 20 minutes
c] $15 \frac{1}{7}$ minutes
d] $17 \frac{1}{7}$ minutes
6. If the vertices of triangle coinsides with the centers of the circles, then what is the radius of the circle, if the shaded portion has area of $4 \sqrt{3}$ sq.m.?

a] 4 cm
b] 2 cm
c] 2 m
d] 4 m
7. A container has 4 red, 3 green and 2 yellow balls. What is the probability that the yellow ball is not picked in the first attempt?
a] $\frac{2}{9}$
b] $\frac{2}{7}$
c] $\frac{5}{7}$
d] $\frac{7}{9}$
8. A boy has 4 shirts and 3 trousers. In how many ways can he select a dress considering that he does not wear the same combination on consecutive days?
a] 12
b] 13
c] 11
d] 10
9. A coin is tossed 3 times. What is the probability of getting a head each time?
a] $\frac{1}{4}$
b] $\frac{1}{2}$
c] $\frac{3}{4}$
d] $\frac{1}{8}$
10. If $10+2 \sqrt{8} \div 10+10 \times \sqrt{8}=a+b \sqrt{8}$. Find $a$ and $b$.
a] $10,21.5$
b] $10,10.2$
c] $10, \sqrt{50}$
d] $10,16.3$
11. In a class of 20 students, the average age is 20 years. On the addition of another 2 students, the average age increases to 21 years. Find the age of the other student, if one of them is 31 years
a] 29 years
b] 31 years
c] 30 years
d] 32 years
12. In an election, A wins over B by a margin of 260 votes which is $13 \%$ of total number of votes. If $0.5 \%$ of votes are invalid, how many votes were valid?
a] 2000
b] 1995
c] 1990
d] 2010
13. 150 kg . of food last for 25 men for 3 days, how long will 200 kg last for 30 men ?
a] $1 \frac{1}{3}$ days
b] $3 \frac{1}{3}$ days
c] $2 \frac{1}{3}$ days
d] 2 days
14. A buys an article at Rs.700. He sells to B at a profit of $5 \%$. B sells to C at loss of $10 \%$. What did C pay for the article?
a] Rs. 680.5
b] Rs. 661.5
c] Rs. 671.5
d] Rs. 669.5
15. What is the centroid of a triangle having vertices $(6,3),(-1,0),(3,3)$ ?
a] $\left(2, \frac{8}{3}\right)$
b] $\left(2, \frac{4}{3}\right)$
c] $\left(\frac{8}{3}, 2\right)$
d] $\left(\frac{4}{3}, 2\right)$

DIRECTIONS for questions 16 to 19: Refer to the pie chart and bar graph below and answer the questions that follow.


Total production $=700$ million tonnes
16. What is Juidal cost/quintal?
a] 0.5 million
b] 0.3 million
c] 0.4 million
d] 0.6 million
17. If Tata exports $25 \%$ of its production, what is its foreign revenue?
a] 60.5 million
b] 62.5 million
c] 65 million
d] 63 million
18. If Birla exports $30 \%$ of its production at 1.5 times the market value in India, then what is the profit earned?
a] 25 million
b] 30 million
c] 27 million
d] 20 million
19. Which company had highest cost/tonne?
a] Juidal
b] Sail
c] Ispat
d] Tata

DIRECTIONS for questions 20 to 24: Refer to the line graph below and answer the questions that follow.

20. What is the average age of the group?
a] 19 years
b] 17 years
c] 16.5 years
d] 18 years
21. How many students lie above the age of 15 years?
a] 28
b] 26
c] 25
d] 32
22. What is the average age of students above 15 years?
a] 15.5 years
b] 24.9 years
c] 20 years
d] 22.8 years
23. If $20 \%$ of the students below the age group of 10 are girls, find the number of boys below 10 years of age.
a] 1
b] 6
c] 3
d] 4
24. If the oldest students in the group, leaves the group the average would
a] decrease by 2
b] increase by 2
c] decrease by 4
d] increase by 4

## DIRECTIONS for questions 25 to 28: Refer to the bar graph below and answer the questions that follow.

The figure below shows num ber of students taking an exam ination over 4 years.

25. For which of the following year is the percentage of growth of number of students from the previous year, the maximum?
a] 1999
b] 2000
c] 2001
d] 2002
26. What is the overall percentage increase during the given period?
a] $314.7 \%$
b] $298.5 \%$
c] $257.14 \%$
d] $202.6 \%$
27. If $12 \%$ of the students taking the exam in 2000 are taking it for the 2 nd time, then how many are appearing for the 1st time?
a] 114400
b] 126000
c] 100500
d] 110000
28. If $46 \%$ of students are engineers, how many students appeared for other exams in 2002?
a] 119600
b] 135000
c] 100800
d] 129600

DIRECTIONS for questions 29 to 40: Each of the following questions is followed by two statements.
Mark [a], if the question can be answered by using any of the statements alone, but not by using the other statement alone.

Mark [b], if the question can be answered only by using both the statements together.
Mark [c], if the question can be answered by using either of the statements alone.
Mark [d], if the question cannot be answered.
29. If $X \neq 0$ and $X^{2} Z-4 X Y+Y=0$, what is the value of $Z$ ?
I. $Z=32 X$.
II. $Z=4 Y$.
30. Given P-T-S, Is PQ \| RS?

I. $\mathrm{b}=2 \mathrm{a}$
II. $\mathrm{c}=3 \mathrm{a}$
31. What is the percentage discount?
I. The customer get three successive discounts of $20 \%, 25 \%$, and $10 \%$.
II. The customer pays Rs. 108 after the discounts for the actual cost of Rs.200.
32. In 1997, ABC Corporation had sales of Rs. 70000 and had a profit of Rs.3500. The Corporation profit in 2000 was what percent of its sales in 2000 ?
I. The difference between sales and profit in 2000 was $20 \%$ greater than the difference between sales and profit in 1997.
II. Sales and profit in 2000 each increased by $20 \%$ over sales and profit in 1997.
33. The ratio of the distance travelled to the usual speed of a person is:
I. Walking $\frac{4}{5}$ th of his usual speed, he is 5 minutes late.
II. Walking $\frac{5}{4}$ th of his usual speed, he is 5 minutes soon.
34. If $X^{5}=X^{3}$, what is the value of $X$ ?
I. $X \neq 1$
II. X < 0
35. What is the value of $X$ ?

I. $\mathrm{X}=\mathrm{Y}=\mathrm{Z}$
II. $Z=60$
36. If PS is a straight line, what is the value of $x+y$ ?

I. $\mathrm{s}=40^{\circ}$
II. $\mathrm{r}=70^{\circ}$
37. What is the perimeter of rectangle OPQR?

I. $b c=8$
II. $\mathrm{R}=(4,0) ; \mathrm{P}=(0,2)$
38.


What is the length of segment PT?
I. Q is mid-point of PR , and $\mathrm{PQ}=2 \quad$ II. S is mid-point of RT , and $\mathrm{RS}=2$
39. What is the length of QR ?

I. $\angle \mathrm{SQR}=60^{\circ}$
II. $P Q=6$
I. The length of PT is 2 .
II. The length of RS is $\sqrt{3}$.
40. If m and n are integers, what is the value of $\mathrm{m}+\mathrm{n}$ ?
I. $(x+m)(x+n)=x^{2}+5 x+m n$
II. $m n=4$

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## SECTION-II

## REASO NING

## QUESTIONS : 35

DIRECTIONS for questions 41 and 42:
Mark [a] if only 1 is implicit.
Mark [b] if only 2 is implicit.
Mark [c] if both are implicit.
Mark [d] if neither is implicit.
41. God gives human beings wealth, fame and power as a test.

1. Only those are dear to God who are not carried away by the things mentioned above.
2. Human beings need not make an effort to acquire these things as they are given by God.
3. Most of the people in Metropolitan cities lead an extremely busy life.
4. Life in rural areas is more relaxed.
5. There are some people in Metropolitan cities who don't have to rush all the time.

DIRECTIONS for questions 43 and 44: An argument is followed by two statements. Identify which is implicit.
43. "Smoking is prohibited in public place in Tamilnadu"
I. This is going to affect the sales of Indian cigarette manufacturers.
II. Indian cigarette manufacturers are finding alternative mechanisms to satisfy their customers.
a] Only I follows
b] Only II follows
c] Both follow
d] None follows.
44. The market share of Bisleri has come down after the launch of Aquafina and Kinley.
I. Existing customers of Bisleri have jumped to other brands.
II. Aquafina and Kinley are of better quality than Bisleri.
a] Only I follows
b] Only II follows
c] Both follow
d] None follows.

DIRECTIONS for questions 45 to 48: In this type of question, you have to understand a given statement or passage, and decide what conclusion can be drawn from it, or what is the implicit meaning. Like all other types, this one too is best illustrated with an example:

For the questions below three conclusions are drawn from the main passage/statement. Mark:
Mark [a] if only I follows
Mark [b] if only II follows
Mark [c] if only III follows
Mark [d] if all follow
45. Archaeological excavations at Panda show that it was a major trade centre during 6th century BC to 2nd century BC. The use of dish-on-stand shows the great antiquity of the site.
I. Dish-on-stand was necessary to trade.
II. Dish-on-stand fell into disuse later.
III. Dish-on-stand was not used elsewhere.
46. Consumption of an average size banana daily can reduce the risk of getting a stroke by 50 per cent.
I. Only half the people who eat an average size banana daily will get a stroke.
II. The stroke will be only half as severe for people who eat an average size banana daily.
III. A person is half as likely to get a stroke if s/he eats an average size banana daily as if s/he doesn't eat it.
47. The average reader does not go deep into published stories. He reads the headlines and forgets the facts. Readers do not exercise their minds and reports are taken at face value.
I. If there is a truthful report and a misleading headline, the average reader will carry a mistaken understanding of the event reported.
II. The average reader does not have the time to go deep into published stories.
III. The average newspaper reader is gullible.
48. US employers expect to add fewer jobs in the coming months. Most sectors will feel the pinch except manufacturing where job prospects will hold steady and finance, insurance and real estate where they could improve.
I. Employment in agriculture is less likely to rise than in bicycle making.
II. Employment in banking is more likely to rise than in software.
III. Employment in textiles is not less likely to rise than in food processing.

DIRECTIONS for questions 49 to 51: Refer to the data below and answer the following questions
49. CAGE : BDF and KICK : JFG then MOUSE:
a] RNTL
b] NRTL
c] NPVT
d] TLRS
50. FOLIC : VOOIX then ELIMINATE $=$ ?
a] WLRMRNZTW
b] WLRMRMZS
c] VLRMRNZUV
d] VLRMRNZTV
51. COPE : HVYP then FACTUAL :
a] KHLEHPC
b] LHMEHPC
c] KHKEHQC
d] None of these

DIRECTIONS for the questions 52 and 53: For the following questions, choose the option where the third statement can be logically derived from the first two statements together and not from any one alone.
52. a] Some dogs are not cats; some dogs are monkeys; some cats are monkeys.
b] Some bones are nails; some bones are cartilages; some nails are cartilages.
c] Some markers are permanent; some permanent are white board markers; some white board markers are markers.
d] All As are Bs; some As are Cs; some Cs are Bs.
53. a] All North-Indians are clever; Pushpa is clever; Pushpa is a north Indian.
b] All alcohol is a carcinogen; Balaji likes Brandy; Balaji is susceptible to Cancer.
c] All Bio-Data are curriculum vitae; Bio-data are not exhaustive enough; Curriculum Vitae are not exhaustive.
d] All Americans are Janus-Headed; Naom Chomsky is not Janus-headed; Naom Chomsky is not an American.

DIRECTIONS for questions 54 and 55: A statement is followed by four options. Choose the option/ options that is/are logically consistent.
54. If you get 80 correct you will be called for group discussion

1] You were not called for group discussion; you did not get 80.
2] You were called for group discussion; you got 80 .
3] You got 80; you were not called for group discussion.
4] You got 80; you were called for group discussion.
a] 1 and 4
b] 2 and 3
c] 2 and 4
d] only 2
55. Whenever question paper is easy, evaluation will be strict.

1] Question paper was easy; evaluation was strict.
2] Evaluation was strict; question paper was easy.
3] Evaluation was not strict; question paper was not easy.
4] Question paper was not easy; evaluation was not strict.
a] 1 and 2
b] 1 and 3
c] 2 and 3
d] 2 and 4

DIRECTIONS for questions 56 to 59: Two statements are followed by two possibilities. Choose the right answer which applies to the inferences.
Mark [a], if only [1] follows.
Mark [b], if only [2] follows.
Mark [c], if both follows.
Mark [d], if none follows.
56. No house is mouse. No mouse is rabbit. So,
1] No house is rabbit.
2] No rabbit is house.
57. All wheels are round. All coins are round. So,
1] All coins are wheels.
2] All wheels are coins.
58. All horses are donkeys. Some donkeys are monkeys
1] All horses are monkeys.
2] Some monkeys are horses.
59. No flower is a plant. No plant is tree.
1] No tree is flower.
2] No flower is tree.

## DIRECTIONS for questions 60 and 61: Choose the correct alternative.

60. Five people were walking along the street. S was ahead of $\mathrm{P}, \mathrm{Q}$ was following R , T was between P and R . Who was in the middle?
a] Q
b] R
c] S
d] T
61. Introducing a man a woman said: "He is the only son of my father's father. How are the woman and man related."
a] Aunt
b] Niece
c] Sister
d] None of these

DIRECTIONS for questions 62 to 65: The words given in the question have a definite relationship. Choose the option which has a similar relation.
62. Claustrophobia: Closed space ::
a] Agoraphobia : Spider
b] Cancerophobia : Cancer
c] Anglophobia : French
d] Necrophobia : Dead bodies
63. Rose : Flower ::
a] Nimbus : Wind
b] Tornado : Clown
c] Rape : Seed
d] Stag : Dog
64. Cul de sac : Blind alley ::
a] Cadaverous : Frightening
b] Cadaverous : Bold
c] Honey : Bee
d] Rose : Flower
65. Ice : Cool ::
a] Coal : Embers
b] Embers : Hot
c] Wood : Hard
d] Hill : Strong

## IRECTIONS for questions 66 to 68: Find the odd man out:

66. Dinosaur, Lion, Tiger, Cow, Buffalo
a] Dinosaur
b] Lion
c] Tiger
d] Buffalo
67. Grass, leaf, chlorophyll, branch, green
a] branch
b] leaf
c] chlorophyll
d] grass
68. Clip, lipstick, hair pin, comb, earring
a] clip
b] lipstick
c] earring
d] comb

DIRECTIONS for questions 69 to 71: Arrange the sentence in a logical sequence.
69. 1. Which sent him to judicial custody
2. He was produced before
3. As Thete was caught red-handed
4. A judicial committee.
a] $1,2,3,4$
b] $3,4,2,1$
c] $2,4,1,3$
d] $3,2,4,1$
70. 1. Mr. Mehta, retired yesterday
2. He will not just walk into retired life
3. He will also continue to fight against injustice
4. The man all the criminals dreaded.
a] $1,2,3,4$
b] $4,1,2,3$
c] $4,1,3,2$
d] $4,3,2,1$
71. 1. Why does the media always blame me?
2. I love my country and game like no one else
3. He cried out in anguish as usual.
4. The conference was always a torture.
a] $1,2,3,4$
b] $4,3,1,2$
c] $1,4,2,3$
d] $4,2,3,1$

DIRECTIONS for questions 72 to 75: Each question is followed by two statements, I and II.
Mark [a] If statement I alone is sufficient, but statement II alone is not sufficient to answer the question.

Mark [b] If statement II alone is sufficient, but statement I alone is not sufficient to answer the question.

Mark [c] If both statements I and II together are sufficient to answer the question.
Mark [d] If statements I and II together are not sufficient to answer the question.
72. Which is the heaviest out of iron, aluminium and gold?

Statement I : Gold is very costly.
Statement II : Aluminium is lightest of all three.
73. Who is the shortest among Aditya, Srinivas and Kalyani?

Statement I : Kalyani is shorter than Aditya but taller than Srinivas.
Statement II : Srinivas is shorter than Aditya.
74. Out of Vidya, Vinod and Ashish who is married?

Statement I : Ashish has one child whose name is Amar.
Statement II : Vinod and Vidya are husband and wife.
75. Is Mumbai a metropolitan city?

Statement I : A metropolitan city must have a population over 20 lakhs.
Statement II : This year Mumbai's population exceeded 20 lakhs.

## QUESTIONS : 25

DIRECTIONS for questions 76 to 90: Read the following passage and answer the questions that follow.

## PASSAGE - 1

The Chinese philosophers were not only averse to epistemology, they had an almost gallic disdain for prolonged metaphysics. No young metaphysician could admit that Confucius is a philosopher, for he says nothing about metaphysics and less about epistemology; he is as positivistic as Spencer or Comte; his concerns is always for morals and the state. Worse than that, he is disreputably intelligible; and nothing could be so damaging to a philosopher. But we "moderns" have become so accustomed to windy verbiage in philosophy that when philosophy is presented without the verbiage we can, with difficulty, recognise it. One must pay a penalty for having a prejudice against obscurity.

The story tried to salt itself with a seasoning of humour, not only because wisdom is not wise if it scares away merriment, but because a sense of humour being born of perspective bears a near kinship to philosophy; each is the soul of the other. But this appears to have displeased the pundits; nothing so hurt the book with them as its smiles. A reputation for humour is disastrous to statesmen and philosophers. Germany could not forgive Schopenhauer his story of Lluzelwann, only France has recognized the depth behind the wit and brilliance of Voltaire.

I trust that the book never misled its reader into supposing that by reading it they would become philosophers overnight, or that they would be saved the trouble, or pleasure, of reading the philosophers themselves. God knows there is no shortcut to knowledge; after forty years of seeking her one finds "Truth" still veiled and what she shows of herself most disconcerting. Instead of aiming to be a substitute for philosophers, the story implicitly offered itself as an introduction and an invitation; it quoted the philosophers lavishly, so that the taste for them might linger when the book was closed; time and again it prodded the readers to the original texts; and warning was given that one reading of them would hardly be enough.
76. Who has Confucius been compared to?
a] Spencer
b] Comte
c] Both
d] None
77. What according to the author have the moderns become accustomed to?
a] excess of words
b] conciseness
c] terseness
d] none of these
78. What does the author try to tell the masses?
a] Humour bears a relation with philosophy.
b] Pundits did not like humour.
c] One reading of the book cannot make one a philosopher.
d] Confucius is a philosopher.
79. 'Being born of' would mean:
a] Being collateral to
b] Being engendered by
c] Being relevant to
d] Being related to
80. 'Salt itself' means:
a] Make itself realistic
b] Make itself interesting
c] Redeem itself
d] Promote itself

## PASSAGE - 2

In the past, parents and psychologists could only guess that a baby was thinking. Most of our knowledge about infants came from direct observation by psychologists. No wonder, such information often smacked of ignorance on the part of the investigator. But, as result of advances in scientific observation, we now know far better about the early years than ever. Video cameras have refined our ability to observe as well as record the behaviour of infants. As a researching tool for exploring human behaviour, the camera has been as useful as the microscope was in revealing unseen organisms.
81. What is the author trying to focus on?
a] Psychologists gave information on infants.
b] Human behaviour has been studied keenly.
c] In past days, people were not scientific.
d] Behaviour of infants has been studied in a scientific way rather than observation by psychology.
82. The para above is based on:
a] Fact
b] Studies
c] Research
d] History
83. The para is:
a] informative
b] descriptive
c] narrative
d] passive
84. What describes the use of the camera the best?
a] Researching tool
b] Reveals unseen organisms
c] As a microscope
d] Ability to observe well
85. Why was human behaviour not understood well?
a] Because there was no camera.
b] Psychologist were not good in observation.
c] People were ignorant.
d] People did not feel the necessity to understand and study human behaviour.

## PASSAGE - 3

Last Monday millions of Americans dialled long distance and got nowhere. The phone was silent, or, worse, kept spewing out the annoying message that "All circuits are busy." They weren't busy, they had stopped working. Airline and hotel reservation numbers went dead. Catalogue shoppers couldn't order pink azaleas or amber cable-knit sweaters. Callers were disconnected, bereft of their inalienable right to reach out and touch someone. For nine hours, AT \& T's well- publicised Right Choice telephone network proved the wrong choice, virtually collapsing wide, delaying or aborting
more than half its telephone traffic. The telephonic debacle was not due to a burnt- out computer or balky transistor. It was caused by a new societal hazard of the 90 's: the mysterious failure of a complicated computer-software program. And the next time it happens, the result may be death rather than merely loss of dial tone.

Software is the invisible Achilles' heel of the computer revolution. During the 80's computers grew smaller, more powerful and ubiquitous. Computers now control not only the nation's telephone communications, but everything from traffic lights and microwave ovens to the aircraft over Manhattan; even the average modern automobile contains a half-dozen tiny computers. But as engineers have shrunk computer hardware - chips, screens, keyboards - the software, the coded instructions that tell computers what to do, has ballooned in size and become less dependable. The public is already aware of the danger of illicit hackers and malevolent computer viruses but, in fact, even the best intentioned programmer can produce an inadvertent disaster. We've learned the hard way the truth of the old computer refrain: garbage in, garbage out.

Software is measured in lines - each line instructing the computer to perform a specific task. A decade ago a program containing a few thousand lines was considered long. Now, a simple word - processing program for a personal computer can contain 50,000 lines; the directions for a jumbo jet will run over a million. As programmes grow massive, errors become inevitable, and frequent. According to a recent Congressional report called "Bugs in the Program," software failure costs the nation more than a billion dollars each year. "We're faced with an increasingly technologic society with a hollow core of faulty software", says Gregory Simon, co-author of the report. "The AT \& T failure is just a shot across the bow".

The AT \& T glitch was caused by a computer program that determines the most efficient path for routing long distance calls. The program had worked flawlessly for months, until some unforeseen and still unknown combination of telephone calls caused an error to surface. The malfunction rapidly spread across the country, since the same program is used in all of the company's 114 interconnected switching centres nation-wide. The 72 screen array at AT \& T's Network Operations Centre in Bedminister, N. J., which shows the network's condition, was soon a tangle of criss-crossed lines. "We were confused about what we were seeing because it was so widespread," said Cheryl Nelson, console supervisor at the NOC. "It was the most horrible thing that could happen".
86. When the author refers to "garbage in, garbage out" he means:
a] computer software is responsible for the malfunctioning of a computer, to the same extent as the hardware.
b] quality of software decides the functioning of the computer.
c] computer cannot function irrespective of software.
d] none of the above.
87. Which of the following would alter the authors perceptions regarding the software?
a] Even as computer hardware got miniaturised, the software has ballooned in size.
b] The software is the coded instruction that tells the computer what to do.
c] Any other area of computerisation may be tampered with but not the software because of its built-in foolproof programming.
d] None of the above.
88. AT \& T carried an image of reliability. This was tarnished by a software programme which ...
i. worked perfectly for months.
ii. determines the most efficient path for routing long distance calls.
iii. is the same for all company's interconnected switching centres.
iv. was compiled by a team of experts over a period of one year.
a] i and ii
b] i, iii and iv
c] i and iii
d] ii and iv
89. For a large part of the day AT \& T's telephone network went dead. This incident is characterised by the author in various ways. Which of the following does not fit in?
a] Failure of a complicated software programme.
b] The telephone fiasco was due to a burnt-out computer.
c] Callers were disconnected, bereft of their inalienable right to reach out to others.
d] It was caused by a new societal hazard of the 90 's.
90. "Computers are becoming less dependable". According to the passage, this is mainly because of ...
a] reduction in hardware and increase in coded instructions.
b] malfunctioning of computers.
c] failure of programmers.
d] software becoming more complicated.

DIRECTIONS for questions 91 to 94: Each of the questions given below has an error. Find the suitable replacement from the options given so as not to change the meaning of the given sentence.
91. I am in desperate need of my mother's advice.
a] I am in desperate need of my mother's advice.
b] I desperately need my mother's advice.
c] I desperately need my mother's advice.
d] I am in desperate need of my mother's advice.
92. Having completed, my homework and I ran home.
a] I having completed my honework ran home.
b] Having completed my homwork ran home.
c] Having completed my homework ran home.
d] Having completed my homework, I ran home.
93. A triangle has 4 angles
a] A triangle has 4 angles
b] A triangle has 3 angles
c] A triangle is 3 angles
d] A triangle has 4 angle
94. He, who rises will, fall
a] He who rises will fall
b] He , who rises will fall
c] He , who rises, will fall
d] He who rises, will fell.

DIRECTIONS for questions 95 to 97: Choose the phrase / word closest in meaning to the capitalised word.
95. PERNICIOUS
a] minute care
b] destructive
c] vigilant
d] relevant
96. COMFORT
a] to carry oneself
b] to agree
c] to give solace
d] to alleviate
97. EGRESSION
a] hostility
b] departure
c] effusion
d] digression

DIRECTIONS for questions 98 to 100: Choose the one which is farthest from the possible meaning of the word.
98. MANUAL
a] physical
b] draft copy
c] pertaining to man
d] hand book
99. POLEMIC
a] controversial
b] logically argued
c] warlike
d] aggressive attack
100. SET
a] seat
b] dispose
c] compose
d] deliberate

## EXPLANATORY ANSWERS

## SECTION-I

1. L.C.M. of 16,21 and 30 is 1680.
$\therefore 1685$ is the required answer. Hence, [b].
2. Let the son's age be x years. $\therefore$ Father's age is 3 x years

Also, $3 x-5+x-5=70$
$\Rightarrow 4 x=80 \Rightarrow x=20$
$\therefore$ Son's age five years hence will be 25 years. Hence, [a].
3. Initial content of spirit $=\frac{70}{100} \times 40=28$ litres.
$\therefore$ Water $=12$ litres.
If $x$ litres of water is added, $\frac{12+x}{40+x}=\frac{60}{100} \Rightarrow 2 x=60 \Rightarrow x=30$ litres.
Hence, [c].
4. Distance travelled will be same as the length of $B=100 \mathrm{~m}$

Speed $=50 \mathrm{~m} / \mathrm{s}+\mathrm{x}_{\mathrm{A}}$.
Given, $\frac{100}{50+\mathrm{x}_{\mathrm{A}}}=1$
$\therefore \mathrm{x}_{\mathrm{A}}=50 \mathrm{~m} / \mathrm{s}$. Hence, $[\mathrm{a}]$.
5. Time to fill the tank $=\frac{1}{\mathrm{~T}}=\frac{1}{20}+\frac{1}{30}-\frac{1}{40}=\frac{7}{120}$
$\therefore \mathrm{T}=\frac{120}{7}=17 \frac{1}{7}$ minutes. Hence, [d].
6. The shaded portion is an equilateral triangle.
$\therefore$ Area of $\Delta=\frac{\sqrt{3}}{4} \times(\text { side })^{2}=4 \sqrt{3} \ldots$ (given)
$\Rightarrow a=4 \ldots$ (Let $a$ be the side of equilateral triangle)
$\therefore$ The radius of circle $=2 \mathrm{~m}$. Hence, $[\mathrm{c}]$.
7. Probability that yellow ball is picked in the first attempt $=\frac{2}{9}$
$\therefore$ Probability that yellow ball is not picked in the first attempt $=\frac{7}{9}$
Hence, [d].
8. Shirts can be selected in ${ }^{4} C_{1}=4$ ways.

Trousers can be selected in ${ }^{3} \mathrm{C}_{1}=3$ ways.
$\therefore$ Total number of ways $=12$.
This includes previous day combination
$\therefore$ Number of ways $=12-1=11$. Hence, [c].
9. $\quad \mathrm{P}$ of getting head $=\frac{1}{2}$
$\therefore$ For 3 successive cases, probability $=\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}=\frac{1}{8}$.
Hence, [d].
10. $10+2$ (sq. rt of 8$) \div 10+10 \times($ sq. rt of 8$)=a+b \sqrt{8}$
$\Rightarrow 10+2 \sqrt{8} \div 10+10 \sqrt{8}=\mathrm{a}+\mathrm{b} \sqrt{8}$
$\Rightarrow 10+\frac{\sqrt{8}}{5}+10 \sqrt{8}=a+b \sqrt{8}$
$\Rightarrow 10+\sqrt{8}\left(\frac{1}{5}+10\right)=a+b \sqrt{8}$
$\Rightarrow 10+\sqrt{8}\left(\frac{51}{5}\right)=a+b \sqrt{8}$
$\therefore \mathrm{a}=10$ and $\mathrm{b}=\frac{51}{5}=10.2$. Hence, $[\mathrm{b}]$.
11. The sum of ages of students $=20 \times 20=400$

After addition, sum of ages $=21 \times 22=462$
$\therefore$ Age of the other student $=462-400-31=31$ years. Hence, [a].
12. If $13 \%$ of the total number of votes are 260 , then total votes $=2000$.
$0.5 \%$ of votes are invalid. $\therefore$ Number of invalid votes $=\frac{0.5}{100} \times 2000=10$
$\therefore$ Number of valid votes $=1990$. Hence, [c].
13. Men Unit Days

| 25 | $\downarrow$ | 150 | $\downarrow$ | 3 |
| :--- | :--- | :--- | :--- | :--- |
| 30 |  | 200 |  | $\frac{200}{150} \times \frac{25}{30} \times 3=3 \frac{1}{3}$ days |

Hence, [b].
14. B buys the article at $\frac{105}{100} \times 700=$ Rs. 735

C buys it at $\frac{90}{100} \times 735=$ Rs. 661.5 . Hence, $[b]$.
15. The centroid of a triangle
$=\left(\frac{x_{1}+x_{2}+x_{3}}{3}, \frac{y_{1}+y_{2}+y_{3}}{3}\right)$
$=\left(\frac{6-1+3}{3}, \frac{3+0+3}{3}\right)=\left(\frac{8}{3}, 2\right)$. Hence, $[c]$.
16. Juidal's production $=\frac{9}{100} \times 700=63$ million tonnes.

Revenue $=340$ million .
$\therefore$ Cost/tonne $=\frac{340}{63}$
$\therefore$ Cost/quintal of Juidal $=\frac{340}{63 \times 10} \cong 0.5$ million. Hence, [a].
17. Tata's production $=\frac{22}{100} \times 700=154$ million tonnes.

Revenue $=250$ million.
$\therefore$ Cost/tonne $=\frac{250}{154}$ million
$25 \%$ of the production $=154 \times \frac{1}{4}$
$\therefore$ Foreign Revenue $=\frac{250}{154} \times \frac{1}{4} \times 154=62.5$ million. Hence, [b].
Alternatively,
Foreign Revenue $=\frac{\text { Cost } \times 25}{100}=\frac{250 \times 25}{100}=62.5$ million.
18. Birla's production $=\frac{25}{100} \times 700=175$ million tonnes; Revenue $=180$ million.
$\therefore$ Cost/tonne $=\frac{180}{175}$ million
$30 \%$ of production $=\frac{3}{10} \times 175$
$\therefore$ Profit $=0.5 \times \frac{3}{10} \times 175 \times \frac{180}{175}=27$ million. Hence, $[c]$.

Alternatively,
Profit $=\frac{\text { Cost } \times 30}{100} \times 0.5=\frac{180 \times 3}{10} \times \frac{1}{2}=27$ million.
19. Cost/tonne for Juidal $=\frac{\text { Revenue }}{\text { Total Production }}=\frac{340}{\frac{9}{100}} \times 700=\frac{340}{63} \cong 5.4$ million;

Similarly, cost/tonne for Sail $=\frac{450}{98} \cong 4.6$ million;
Cost/tonne for Ispat $=\frac{300}{210} \cong 1.4$ million and cost/tonne for Tata $=\frac{250}{154} \cong 1.6$ million. Hence, [a].
20. Average age $=\frac{3 \times 2+9 \times 3+10 \times 6+13 \times 4+15 \times 6+17 \times 2+22 \times 7+25 \times 10+30 \times 7}{2+3+6+4+6+2+7+10+7}$
$=\frac{883}{47}=18.78 \cong 19$ years. Hence, [a]
21. Number of students with age more than 15 years $=2+7+10+7=26$. Hence, [b]
22. Average age of students above 15 years $=\frac{17 \times 2+22 \times 7+25 \times 10+30 \times 7}{26} \cong 24.9$ years.

Hence, [b].
23. Number of students below age 10 years $=5$
$\therefore$ Number of boys $=\frac{80}{100} \times 5=4$. Hence, [d].
24. Total age of the group $=883$

Total age when the oldest leave the grop $=883-210=673$
Average age $=\frac{673}{40}=16.83$
Average decreases by $18.78-16.83 \approx 2$. Hence [a]
25. Increase for $1999=\frac{110-70}{70}=0.5714 \cong 57.14 \%$

Years 2000 and 2002 can be eliminated by observation.
Increase for $2001=\frac{200-130}{130}=0.5385 \cong 53.8 \%$. Hence, [a].
26. Percentage increase $=\frac{250-70}{70} \cong 257.14 \%$. Hence, [c].
27. The number of students appearing for the first time in year $2000=\frac{88}{100} \times 130000=114400$.

Hence, [a].
28. Number of students appearing for other exams in $2002=\frac{54}{100} \times 250000=135000$.

Hence, [b].
29. Replacing $Z$ from statement $I$ gives a cubic equation: $32 \mathrm{X}^{3}-4 \mathrm{XY}+\mathrm{Y}=0$. $\therefore$ I alone is not sufficient.
Replacing Z from statement II gives: $4 \mathrm{YX}^{2}-4 \mathrm{YX}+\mathrm{Y}=0$ or $\mathrm{Y}(2 \mathrm{X}-1)^{2}=0$.
If $\mathrm{X}=\frac{1}{2} ; \mathrm{Y}=0$ and hence Z can take any value. II alone is not sufficient.
Both statements together gives us a cubic equation in Z with real roots (if X and Y are replaced with $Z): Z^{3}-32 Z^{2}+8 \times 32 Z=0$. This gives us, $Z\left(Z^{2}-32 Z+256\right)=0$ $\Rightarrow Z=0$ or $Z^{2}-32 Z+256=0 \Rightarrow Z=0$ or $(Z-16)^{2}=0 \Rightarrow Z=0$ or $Z=16$.
$\therefore$ Unique value of Z cannot be determined. Hence, [d].
30. Statements I and II together establish the triangles as $30-60-90$ triangles, hence $\mathrm{c}=90$, which makes the interior angles supplementary. Hence, [b].
31. Statement I gives overall discount and statement II gives discount $=\frac{\text { total discount }}{\text { actual price }}=\frac{92}{200}$. Hence, [c].
32. Statement I gives the following equation for 2000 sales: Profit $+66500 \times \frac{120}{100}$.

I alone is not sufficient.
Statement II allows us to calculate actual sales and profit values in 2000, and thus the sales/ profit ratio. Hence, [a].
33. Ratio of distance travelled to usual speed is the normal time taken (distance $=$ speed $\times$ time). Either statement alone does not give us usual time t .
Statement I gives: $d=(t+5) \times \frac{4 s}{5}$
Statement 2 gives: $d=(t-5) \times \frac{5 s}{4}$
Both statements are required to answer the question. Hence, [b].
34. $X^{5}=X^{3}$ gives us $X^{3}\left(X^{2}-1\right)=0$. This gives us $X=0$ or 1 or -1 .

Statement I gives $\mathrm{X}=0$ or -1 , hence insufficient.
Statement II gives $\mathrm{X}=-1$, hence sufficient. Hence, [a].
35. $2(\mathrm{X}+\mathrm{Y}+\mathrm{Z})=360^{\circ}$

From I: $\mathrm{X}=\mathrm{Y}=\mathrm{Z}$. Hence, $\mathrm{X}=60^{\circ}$
From II: $Z=60$. To find value of $X$, value of $Y$ also should be known. Hence, [a].
36. Using exterior angles, $\mathrm{x}=\mathrm{s}+\mathrm{t}, \mathrm{y}=\mathrm{s}+\mathrm{r}$. Hence, $\mathrm{x}+\mathrm{y}=2 \mathrm{~s}+\mathrm{r}+\mathrm{t}$

Now, $\mathrm{r}+\mathrm{s}+\mathrm{t}=180$. Hence, $\mathrm{x}+\mathrm{y}=\mathrm{s}+180$
Statement I is sufficient, statement II is not. Hence, [a].
37. Perimeter $=2(b+c)$

Statement I does not give unique value for $b+c$. Hence, $I$ alone is not sufficient.
Statement II gives $b=4$ and $c=2$. Hence, [a].
38. Statement I gives $\mathrm{PQ}=\mathrm{QR}=2$

Statement II gives RS $=\mathrm{ST}=2$
$\therefore$ Combining I and II, we get, PT $=8$. Hence, [b].
39. From I and II, PQR is an isosceles triangle and $\mathrm{PQ}=6$. Hence, $\mathrm{QR}=6$. Hence, [b].
40. I. $(x+m)(x+n)=x^{2}+5 x+m n$
$\Rightarrow x^{2}+(m+n) x+m n=x^{2}+5 x+m n$
$\Rightarrow \mathrm{m}+\mathrm{n}=5$. Hence, I alone is sufficient.
II alone is not sufficient. Hence, [a].

## SECTION-II

41. None of the statements are implied. Hence, [d].
42. [1] cannot be assumed for lack of data. "Most of the people" points to [2] as an implicit assumtion. Hence, [b].
43. Smoking is prohibited in Tamilnadu. This may or may not affect sales of the Indian cigarette manufacturers. Thus I is not implicit. II is not implied in the argument. Hence, [d].
44. None follow. We cannot say from the argument that the existing customers have jumped to other brands. Nor is II implicit. Hence, [d].
45. If use of dish-on-stand shows antiquity, that is, shows that the finds must belong to a period before a certain point in time, it must have fallen into disuse later. We know nothing about whether it had anything to do with trade or whether it was used elsewhere. Hence, [b].
46. Risk is probability. In this case probability must apply to individuals. Whatever one's risk (probability) of stroke, that probability is halved if you eat an average size banana daily. The statement says nothing about what proportion of people will get a stroke or about its severity. Hence, [c].
47. The average newspaper reader is said to read headlines but not go deep into stories. This means that what is remembered comes from the headline. There is no reason given of why readers do not go deep into stories. Even if news reports are taken at face value, readers are not necessarily gullible otherwise. Hence, [a].
48. We have been told that most sectors will see less new employment than manufacturing; and manufacturing less than finance, insurance and real estate. It only remains to note the sector to which the given industries belong and put them in an order: agriculture < bicycle manufacturing, banking > software, and textiles (manufacturing) > food processing (agri-based). Hence, [d].
49. $C A$ is replaced with $B$, which is the $\frac{\text { position of } A+\text { position of } B}{2}$. AG is replaced with $D$ which is the position $\frac{\text { position of } \mathrm{A}+\text { position of } \mathrm{G}}{2}$. Hence, [b].
50. Write the alphabet 1 to 13 in order and 14 to 26 in reverse order below 1 to 13 . The first letter is replaced with the corresponding letter in the reverse set. The second letter remains unchanged. The process is repeated for all the letters in the word. Hence, [d].
51. The coding is in the pattern $+5,+7,+9,+11$ and so on. Hence, [a].
52. [d] follows as seen from the venn diagram.

53. [d] follows as can be seen from the venn diagram.


Noam Chomsky

54. If you get 80 correct you will be called for the group discussion implies that those called for the group discussion have to get 80, thus [2] follows. However it does not imply all those who get 80 will be called for the group discussion, note that it is only one of the criterions. Hence, [d].
55. This can be explained with the help of venn diagrams.

Times when evaluation
is strict


Note that [1] and [3] follow from the diagram. Hence, [c].
56.


None of the options can surely follow. Hence, [d].
57.


None of the options follow. Hence, [d].
58.


Although [2] is a possibility, it cannot follow for sure. Hence, [d].
59.


As can be seen from the diagram, none of the options can follow definitely. Hence, [d].
60. Three arrangements are possible:
$\mathrm{Q} \rightarrow \mathrm{R} \rightarrow \mathrm{T} \rightarrow \mathrm{P} \rightarrow \mathrm{S}$; or
$\mathrm{Q} \rightarrow \mathrm{P} \rightarrow \mathrm{T} \rightarrow \mathrm{R} \rightarrow \mathrm{S}^{\prime}$ or
$\mathrm{P} \rightarrow \mathrm{S} \rightarrow \mathrm{T} \rightarrow \mathrm{Q} \rightarrow \mathrm{R}$
In any of the cases, T will be in the middle. Hence, [d].
61. The woman and the man are daughter and father. Hence, [d].
62. Claustrophobia is a fear of closed spaces. Similarly, necrophobia is a fear of dead bodies. Hence, [d].
63. Rose is a flower. Similarly, rape is a variety of seed. Hence, [c].
64. The relationship is that of synonyms. Hence, [a].
65. Ice has a quality of being coed, while embers are hot. Hence, [b].
66. Dinosaur is the only extinct animal. Hence, [a].
67. Except branch, all other signify or are associated with green colour. Hence, [a].
68. Except comb, all others are specifically used by women. Hence, [d].
69. As Thete was caught red-handed, he was produced before a judicial committee, which sent him to judicial custody. Hence, [d].
70. The man all the criminals dreaded, Mr. Mehta, retired yesterday. He will not just walk into retired life, he will also continue to fight against injustice. Hence, [b].
71. 3 states the consequence of 4 and hence follows 4. Hence, [b].
72. (i) This statement is irrelevant as it is not discussing the weights of the three items.
(ii) This also doesn't gives about any information that which is heaviest, we can only say that either of iron or gold is the heaviest.
Hence, [d].
73. (i) Kalyani < Aditya and Kalyani > Srinivas, thus, Srinivas will be shorter than Aditya. Hence, Srinivas is the shortest.
(ii) Srinivas < Aditya, but we cannot say whether Kalyani is shorter than Srinivas or not. Hence, an answer cannot be deduced. Hence, [a].
74. (i) We cannot assume that Ashish is married. He may have adopted the child whose name is Amar.
(ii) Vinod and Vidya are married as they are husband and wife. Hence, [b].
75. (i) This statement sets a condition that when a city can be called metropolitan. But we don't know anything about Mumbai's population.
(ii) This statement gives Mumbai's population but we don't know the condition that when a city can be called metropolitan.
Combining both (i) and (ii): We can say that Mumbai is a metropolitan city. Hence, [c].

## SECTION-III

76. Refer para 1. Confucius is compared to both Spencer and Comte. Hence, [c].
77. Refer para 1. "... accustomed to windy verbiage in ..." Hence, [a].
78. Through the passage, the author tries to convey that philosophy is difficult to understand. The last line summarises this thought effectively. Hence, [c].
79. In the given context, 'being born of' refers to its pertinence or revelence. Hence, [c].
80. To 'salt itself' means to try to make itself interesting. Hence, [b].
81. The passage highlights the fact that scientific observation has been effective in study of infant behaviour. Hence, [d].
82. The passage talks about facts that have been proven through research. Hence, [c].
83. The paragraph is factual or informative in nature. Hence, [a].
84. In the given context, the camera is primarily used as a research tool. Refer the last sentence of the passage. Hence, [a].
85. Although the camera helps in research, unavailability of the camera was not the reason for not studying human behaviour. Hence, [a] is ruled out. [b] and [d] are not substantiated by the passage. [c] is the reason why human behaviour was not understood. Hence, [c].
86. Refer to the last 3 sentences of paragraph 2. Hence, [b].
87. The author does not trust computer software hence if it is proved that computer softwares are foolproof it would alter the author's perceptions regarding software. Hence, [c].
88. Refer to paragraph 4, sentences 1 and 2. Hence, [a].
89. Refer to the 1st paragraph, sentence 8. Hence, the statement that does not fit in is [b].
90. Refer to sentence 4 of paragraph 2. Hence, [a].
91. Here both options ' $c$ ' and ' $d$ ' are grammatically correct. Option ' $c$ ' an adverb is used after pronoun which is wrong. Hence, [d].
92. The only correct sentence is option [d].
93. Both options ' $a$ ' and ' $b$ ' are grammatically correct. However option ' $a$ ' is correct as the meaning of sentence is not to be changed. Hence, [a].
94. Note the punctuation, option [c] is the correct answer.
95. Pernicious means destructive. Hence, [b].
96. To comfort means to give solace. Hence, [c].
97. Egression means departure. Hence, [b].
98. Manual means all of the given options except [b]. Hence, [b].
99. Polemic means an aggression attack, controversial, or warlike. Only [b] is not related. Hence, [b].
100. Among the given words, only 'deliberate' is not related to set. Hence, [d].

## SCORE SHEET



Directions: 1] Mark your answers by darkening the appropriate circle with an HB pencil.
2] Erase clearly any answer you want to change.
3] Make no stray mark anywhere on the score sheet.

| $1 \mathbf{2 1 4}$ | $\mathbf{1 2 3 4}$ | $\mathbf{1 2 3 4}$ | $\mathbf{1 2 3 4}$ | $\mathbf{1 2 3 4}$ |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 10000 | 210000 | 410000 | 610000 | 81 | 0000 |
| 20000 | 220000 | 420000 | 620000 | 82 | 0000 |
| 30000 | 230000 | 430000 | 630000 | 83 | 0000 |
| 40000 | 240000 | 440000 | 640000 | 84 | 0000 |
| 50000 | 250000 | 450000 | 650000 | 85 | 0000 |


| 60000 | 260000 | 460000 | 660000 | 860000 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 70000 | 270000 | 470000 | 670000 | 87 | 0000 |
| 80000 | 280000 | 480000 | 680000 | 88 | 0000 |
| 90000 | 290000 | 490000 | 690000 | 89 | 0000 |
| 100000 | 300000 | 500000 | 700000 | 90 | 0000 |


| 110000 | 310000 | 510000 | 710000 | 910000 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 120000 | 320000 | 520000 | 720000 | 920000 |
| 130000 | 330000 | 530000 | 730000 | 930000 |
| 140000 | 340000 | 540000 | 740000 | 940000 |
| 150000 | 350000 | 550000 | 750000 | 950000 |


| 160000 | 360000 | 560000 | 760000 | 960000 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 170000 | 370000 | 570000 | 770000 | 97 | 0000 |
| 180000 | 380000 | 580000 | 780000 | 98 | 0000 |
| 190000 | 390000 | 590000 | 790000 | 99 | 0000 |
| 200000 | 400000 | 600000 | 800000 | 100 | 0000 |

ANSWER KEY
NMAT-2003

| SECTIO N - 1 |  |  |  |  |  |  | NO. OF QUESTIONS | 40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-b | 2-a | 3-c | 4-a | 5-d | 6-c | 7-d |  |  |
| 8-c | 9-d | 10-b | 11-a | 12-c | 13-b | 14-b | NO. OF MISTAKES |  |
| 15-c | 16-a | 17-b | 18-c | 19-a | 20-a | 21-b |  |  |
| 22-b | 23-d | 24-a | 25-a | 26-c | 27-a | 28-b | CORRECT ANSWERS |  |
| 29-d | 30-b | 31-c | 32-a | 33-b | 34-a | 35-a |  |  |
| 36-a | 37-a | 38-b | 39-b | 40-a |  |  |  |  |


| SECTION -2 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $41-d$ | $42-b$ | $43-d$ | $44-d$ | $45-b$ | $46-c$ | $47-a$ |
| $48-d$ | $49-b$ | $50-d$ | $51-a$ | $52-d$ | $53-d$ | $54-d$ |
| $55-c$ | $56-d$ | $57-d$ | $58-d$ | $59-d$ | $60-d$ | $61-d$ |
| $62-d$ | $63-c$ | $64-a$ | $65-b$ | $66-a$ | $67-a$ | $68-d$ |
| $69-d$ | $70-b$ | $71-b$ | $72-d$ | $73-a$ | $74-b$ | $75-c$ |

NO. OF QUESTIONS
35 ATTEMPTED QUESTIONS NO. OF MISTAKES CORRECT ANSWERS


| SECTION - 3 |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $76-\mathrm{c}$ | $77-a$ | $78-\mathrm{c}$ | $79-\mathrm{c}$ | $80-\mathrm{b}$ | $81-\mathrm{d}$ | $82-\mathrm{c}$ |
| $83-\mathrm{a}$ | $84-a$ | $85-\mathrm{c}$ | $86-\mathrm{b}$ | $87-\mathrm{c}$ | $88-a$ | $89-\mathrm{b}$ |
| $90-\mathrm{a}$ | $91-\mathrm{d}$ | $92-\mathrm{d}$ | $93-\mathrm{a}$ | $94-\mathrm{c}$ | $95-\mathrm{b}$ | $96-\mathrm{c}$ |
| $97-\mathrm{b}$ | $98-\mathrm{b}$ | $99-\mathrm{b}$ | $100-\mathrm{d}$ |  |  |  |

NO. OF QUESTIONS

## 25

 ATTEMPTED QUESTIONS NO. OF MISTAKES CORRECT ANSWERS $\square$