Management Aptitude Test September

04, 2005

We are very please to present you the detailed analysis of Management Aptitude Test held on September 04, 2005 on various centres all over India. This year also the AIMA MAT tradition continue, there were five sections each containing 40 questions. These 200 questions, to be solved in a time span of 150 minutes. No sectional time limits were mentioned. While there was 1 mark allotted for each correct answer, no quantification was done for negative marking. Thus, while solving the paper students had to concentrate more on accuracy.

Total Number of Questions	200 Objective type questions.
Total Time	150 minutes.
The Marking Scheme	1 mark for each correct answer.
	Negative marking was not quantified
Number of options	FOUR
Sectional Break-up	

Sections	Number Of Questions	
Language Comprehension	40	
Mathematical Aptitude	40	
Intelligence and Critical Reasoning	40	
Data Analysis and Sufficiency	40	
Indian and Global Environment	40	
Total	**200 Questions**	

Sections	Questions
Language Comprehension	40
Mathematical Aptitude	40
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Indian and Global Environment	40

200 Total   **Questions**

Detailed Analysis

In the following pages we have provided some of the actual test questions with their solutions for your reference.

SECTION I LANGUAGE

COMPREHENSION

The section comprises of 40 questions on *Reading Comprehension* and *English Usage.* There were four passages of average 600 words and three to four questions were asked on each passage. Five questions were each on *Critical Reasoning, Sentence Correction* and *Para Jumbling.* While five questions were based on a new type in which three sentences marked A, B and C were given and two of these three sentences had the same meaning, the students have to find which were they. Five questions were on *Dictionary Definitions* of words GROUND, MIX, STEEP, LAST and DRUM. The bird's eye view of the section is as follows

Topics		Number of Question	Level of Difficulty
Reading Comprehension			
Passage I	The cheap products of China and their impact on Indian markets (Approx. 860 words)	4	Easy to Moderate
Passage II	Eating habits of sugar and their effects on human health (Approx. 520 words)	4	
Passage III	Environmentally destructive tourism (Approx. 330 words)	3	
Passage IV	E-governance (Approx. 710 words)	4	
English Usage			
Critical Reasoning		5	Easy
Sentence Correction		5	Moderate
Same Meaning		5	Moderate
Para Jumbling		5	Moderate
Dictionary Definition		8	Easy

Passage IV	E-governance (Approx. 710 words)	4	
	English Usage		
Critical Reasoning		5	Easy
Sentence Correction		5	Moderate
Same Meaning		5	Moderate
Para Jumbling		5	Moderate
Dictionary Definition		8	Easy

SECTION   II
MATHEMATICAL
APTITUDE

In the *Mathematical Aptitude* section there were questions on Arithmetic topics like *Numbers, Ratio and Proportion, Mixtures, Work and Time, Percentage, Area and Volumes etc.* Some questions were also based on *Trigonometry and Permutation and Combination.* The detail break-up of the questions of this part is shown in the following table. We have recalled some of the questions which are as follows

41. On a road three traffic lights change after 48, 72, 108 seconds. If all the three lights changes simultaneously on 8:20:00 pm,
    then at what time the lights will again change simultaneously?
    (1)   8 : 27 : 12   (2)   8 : 25 : 14   (3)   8 : 30 : 00   (4)   8 : 29 : 30

42. If average age of a class (including boys and girls) is 15.8. If the average age of boys is 16.4 and the average age of girls is 15.4 , then the number of boys and girls in the class is

43. Rajan got married 8 years ago. His previous age is 6/5 times his age at the time of his marriage. Rajan's sister was 10 years younger to him at the time of his marriage. The age of Rajan's sister is
    (1)   32   (2)   38   (3)   36   (4)   40

44. An empty fuel tank of a car was filled with A type petrol when the tank was half empty, it was filled with B type   petrol.   Again
when the tank was half empty, it was filled with A type of petrol. When the tank was half empty it was filled with B type   of   petrol.
What is the percentage of A type petrol in the tank at present?
    (1)   13.5%   (2)   40%   (3)   37.5%   (4)   50%

45. 150 identical pieces of a calculator costs Rs. 250 each to a businessman. The transportation and packing cost is Rs. 2500 and labelled price of each calculator is Rs. 320. If the businessman gives 5% discount on each calculator, then what would his profit percentage?

46. A and B two alloys of gold and copper prepared by mixing metals in the ratio 7 : 2 and 7 : 11 respectively. If equal quantities of the alloys are melted to form a third alloy C, the ratio of gold and copper in C will be
    (1)   5 : 7   (2)   7 : 5   (3)   8 : 9   (4)   9 : 5

47. Shekhar started a business investing Rs.25000 in 1999. In 2000 he invested an additional amount of Rs.10000 and Rajeev joins him with on amount of Rs.35000. In 2001, Shekhar invested another additional amount of Rs.10000 and Jatin joined them with an amount of Rs.35000. What will be Rajeev's share in the profit of Rs.1, 50, 000 earned at the end of 3 years from the start of the business in 1999?

    (1) 45000   (2) 70000   (3) 50000   (4) 75000

48. A garrison of 3300 men had provision for 32 days, when given at the rate of 550 gms per head. At the end of 7 days a reinforcement arrives and it was found that the provisions will last 17 days more, when given at the rate of 825 gms per head.What is the strength of the reinforcement?

    (1) 1500   (2) 1800   (3) 1700   (4) 1600

49. A contract has to be completed in 46 days and 117 men were set to work, each working 8 hours a day. After 33 days 4/7 th of the work is completed. How many additional men may be employed so that the work may be completed in time, each man now working 9 hours a day

    (1) 80   (2) 82   (3) 81   (4) 83

50. A cistern has two taps which fills it in 12 minutes and 15 minutes respectively. There is also a waste pipe in the cistern, when all the three pipes are opened, the empty cistern to full in 20 minutes. How long will the waste pipe take to empty the full cistern?

    (1) 5   (2) 15   (3) 10 '   (4) 20

51. Bombay Express left Delhi for Bombay at 14:30 hrs, travelling at a speed of 60 kmph and Rajdhani Express left Delhi for Bombay on the same day 16:20 hours, travelling at a speed of 80 kmph. How far away from Delhi will the two trains meet?

    (1) 120   (2) 450   (3)   360   (4)   500

52. A train 108 m long moving at a speed of 50 kmph crosses a train 112 m long coming from the opposite direction in 6 seconds. The speed of the second train is

    (1) 48 kmph   (2) 60 kmph   (3) 54 kmph   (4) 82 kmph

53. A man rows to a place 48 km distance and back is 14 hours. He finds that he can row 4 km with the stream in the same time as 3 km against the stream. The rate of the stream is

    (1) 1   (2) 1.8   (3) 1.5   (4) 3.5

54. A hemispherical bowl is filled to the brim with a beverage. The contents of the bowl are transferred into a cylindrical vessel whoseradius is 50% more than its height. If the diameter is same for both the bowl and the cylinder the volume of the beverage in the cylindrical vessel is

    (1) 66%   (2) 100%   (3) 78.5%   (4) None of these

55. A spherical bowl of lead 3 cm in diameter is melted and recast into three spherical balls. The diameter of the two of these are 1.5 cm and 2 cm respectively. The diameter of the third ball is
    (1)   2.5   (2)   3   (3)   2.60   (4)   3.5

56. A hollow square of internal and external diameter of 4 cm and 8 cm respectively is melted into a cone of base diameter 8cm. The height of the cone is
    (1)   12 cm   (2)   15 cm   (3)   14 cm   (4)   18 cm

57. A man sell Rs.5000, 12% stock at 156 and invest the proceed partly in 8% stock at 90 and the balance at 9% stock at 108. He thereby increase his income by Rs.70. How much of the proceed were invested in each stock?
    (1)   Rs.3600 in 8% stock and Rs.4200 in 9% stock (2)   Rs.7200 in 8% stock and Rs.7800 in 9% stock
    (3)   Rs.3400 in 8% stock and Rs.4000 in 9% stock (4)   Rs.4800 in 8% stock and Rs.5400 in 9% stock

58. In how many ways the word MATHEMATICS can be arrange so that vowels always come together?
    (1)   10080   (2)   120960   (3)   490960   (4)   None of these

59. A man and his wife appear in an interview for companies in the same post the probability of the husband's selection is 1/7 and the probability of the wife's selection is 1/5. What is the probability that one of them selected?
    (1)   4/5   (2)   8/15   (3)   2/7   (4)   4/7

60. A man buys a watch for Rs.1950 in cash and sells it for Rs.2200 at a credit of one year. If the rate of intrest is 10% per annum the man
    (1)   gains Rs.55 (2)   losses Rs.30 (3)   gain Rs. 50 (4)   gain Rs. 30

61. The banker's discount on a certain sum due 2 years hence is 11/10 of the true discount. The rate percent is (1)   11   (2)   5   (3)   10   (4)   5.5

62. There are two temples one on each bank of river, just opposite to each other. One temple is 54m high. From the top of the temple, the angles if depression of the top and the foot of the other temple are 30 and 60 respectively. Find the width of the river and the height of the other triangle?
    (1)   50.16 m   (2)   16 m   (3)   32.11 m   (4)   31.14 m

63. $\left\{ \dfrac{1}{\log_{xy} xyz} + \dfrac{1}{\log_{yz} xyz} + \dfrac{1}{\log_{zx} xyz} \right\}$
    (1)   4   (2)   3   (3)   5   (4)   2

64. In how many ways the word MATHEMATICS can be arranged?
    (1)   136   (2)   1680   (3)   2450   (4)   192

65. If log2 = 0.30105, then find the number of digits in 256.

Apart from these questions there were three questions each on *Area, Height and Distance, Mensuration* and *Percentages* and one question each on *Mixtures, SI/CI, Work and Time* and *Numbers.*

SECTION III INTELLIGENCE AND CRITICAL
REASONING

In this section 5 questions were each on *Statement-Conclusion, Statement-Argument, Statement-Course of Action* and *Statement-Assumption.* While 10 questions each on *Data Arrangement* and *Misc. topics* like *Direction sense, Coding Decoding* and *Arithmetic based LR.* The questions of Data Arrangement were distributed in two sets of four and three question and three separate questions. Overall the section was moderate. The detail breakup is shown below

Topics	Number of	Level of Difficult
Statement/Conclusion	5	Easy
Statement/Argument	5	Easy
Statement/Course of Action	5	Moderate
Statement/Assumption	5	Moderate
Data Arrangement	10	Moderate
Misc. Topics	10	Moderate

Topics	Number of Questions	Level of Difficulty
Statement/Conclusion	5	Easy
Statement/Argument	5	Easy
Statement/Course of Action	5	Moderate
Statement/Assumption	5	Moderate
Data Arrangement	10	Moderate
Misc. Topic	10	Moderate

We have recalled some of the questions which are as follows

DIRECTIONS: In each of the following questions a statement is given followed by two conclusions. mark the answer is

121.Statement :Morning walks are good for health

Conclusions:I. All healthy people go for morning walks. II.   Evening walks are harmful.

122.Statement:The best way to escape from a problem is to
solve it.

Conclusions : I. Your life will be dull if you don't face a

problem.

II. To escape from problem, you should always have some solutions with you.

123. Statement: Vegetable prices are soaring in the market.
Conclusions: I. Vegetables are becoming a rare commodity. II. People cannot eat vegetables.

124. Statement: Until our country achieves economic equality, political freedom and democracy would be meaningless.
Conclusions: I. Political freedom and democracy go hand in hand.

II. Economic equality leads to real political freedom and democracy.

125. Statement: Parents are prepared to pay any price for an elite education to their children.
Conclusions: I. All parents these days are very well off.

II. Parents have an obsessive passion for a perfect development of their children through good schooling.

DIRECTIONS: A statement is followed by two argument I and II. Decide which of the arguments is a 'strong' argument and which is a 'weak' argument. Mark answer as

(1) if only argument I is strong;
(2) if either I or II is strong;
(3) if only argument II is strong; and
(4) if neither I not II is strong.

126. Statement : Should telecasting feature films be stopped?
Arguments : I. Yes. Young children are misguided by the feature films.

II. No. This is the only way to educate the masses.

SECTION IV DATA ANALYSIS AND
SUFFICIENCY

The fourth section was on Data Analysis and Sufficiency. In this section five questions were on Data Sufficiency, while in the remaining section the questions were on Data Interpretation. There were two tables, one combination of pie chart and table, one line graph and one bar graph and five questions were asked on each set, the questions were easy to moderate. We have recalled some of the questions which are as follows

DIRECTIONS: *For each of the following questions two conclusions are followed by statement given. You have to find that which conclusion logically follows the statement given. Mark your answer as*

(1) if only conclusion I follows.
(2) if only conclusion II follows.
(3) if both the conclusions follows.
(4) neither of the conclusion follows.

81. Why haven't Indian scientists made much headway in any field after independence?
   I.   Indian scientists are not provided with upto date laboratory facilities
   II. Indian scientists regains that knowledge of western science advances is enough for a nation to advance

82. There were 54 members of cooperative society. How many members attended the recent Annual General Meeting (AGM)?
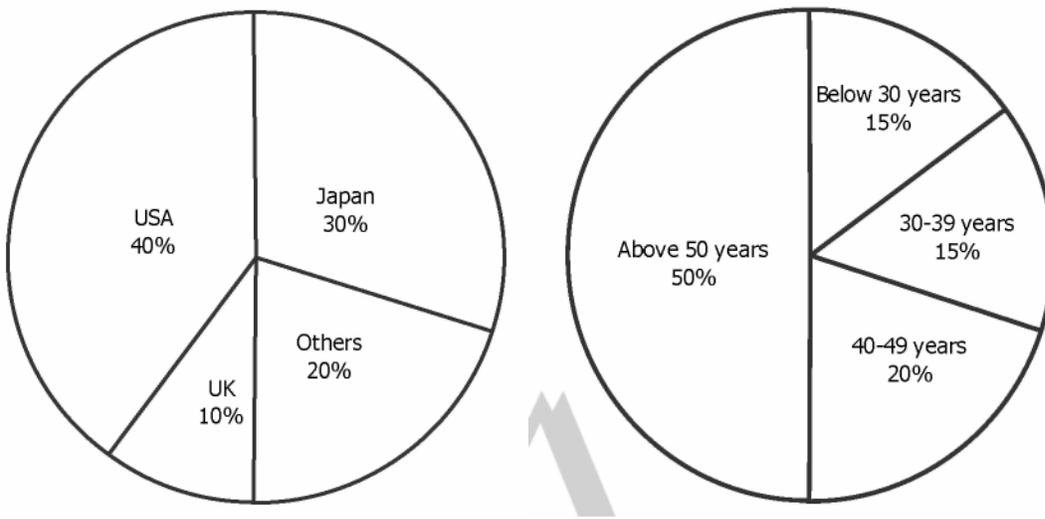   I.   Normally 2/3 members attend the meeting
   II. 1/6 of the members were out of the town.

83. Is cigarette smoking is injurious to health?
    I.   No smokers have a longlife span.   II.   The incidence of heart attack is more in smokers.

84. Does television viewing affects the performance of students?
    I.   The number of failures in class XII is more this year.   II.   Television watching is harmful to the eyes.

85. When will the prices of the Air Cooler be the lowest?
    I.   From January to July end companies offer 15% off season discount.
    II.   During November the prices will be 20%.

DIRECTIONS: *The following pie chart exhibit the distribution of the overseas tourist traffic from India. The two charts who the tourist distribution by country and the age profile of the tourists respectively. Examine the charts carefully to answer these questions.*

107. The ratio of the number of Indian tourists that went to USA to the number of Indian tourists who were below 30 years of age is (1)   2 : 1   (2)   3 : 8   (3)   8 : 3   (4)   Cannot be determined

108. Amongst other countries, Switzerland accounted for 25% of the Indian tourist traffic. It is known from official Swiss records that a total of 25 lakh Indian tourists had gone to Switzerland during the year. What is the number of 30-39 year old Indian tourists who went abroad in that year?
    (1)   18.75 lakh   (2)   50 lakh   (3)   25 lakh   (4)   75 lakh

109. Based on the information in the above question what was the volume of traffic of Indian tourists in the US? (1)   150 lakh (2)   200 lakh   (3)   125 lakh   (4)   None of these

110. On the basis of information in the above two questions; what can be informed about the number of 50+ year old who visited UK during the year?
    (1)   At least 25 lakh   (2)   At least 10 lakh   (3)   Exactly 25 lakh   (4)   Cannot be determined

DIRECTIONS : *Study the line Graph below to answer the question.*

■Workforce   —●—Productivity

111. By how much percentage has production changed (approximately) in 2003 as compared to its value for 2000? (1)   -3% (2)   0%   (3)   +5%   (4)   +7%

112. The percentage change in which of the mentioned areas is the highest over the period 2000-2003?
   (1)   Workforce   (2)   Productivity   (3)   Production   (4)   Both (1) and (3)

113. Which two variables have moved in the same direction in the mentioned period?
   (1)   Workforce and productivity   (2)   Production and productivity
   (3)   Workforce and production   (4)   None of these

DIRECTIONS Q.114- Q.120: *Each of these questions has problem and two statements numbers I and II. Decide if the information given in the statements is sufficient for answering the problem. Mark the answer as*

   (1)   If statement I by itself is sufficient to answer the question, but statement II by itself is not.
   (2)   If statement I and II taken together are sufficient to answer the question, even though neither statement by itself is sufficient.
   (3)   If statement II by itself is sufficient to answer the question, but statement I by itself is not.
   (4)   If either statement by itself is sufficient to answer the question.

114. If $-\frac{3}{4}x + 3y - \frac{1}{2} = \frac{3}{2v} - \frac{1}{4}x$ what is the value of x?

   I. $y^2 = 4$ II.   y =

   2

115. A list contains 11 consecutive integers. What is the greatest integer on the list?
    I.   If x is the smallest integer on the list, then $(x + 72)^{1/3} = 4$.
    II.   If x is the smallest integer on the list, then $1/64 = x^{-2}$.

116. If a rectangle has length a and width b, what is its area?
    I. $2a = 15/b$ II. $a = 2b - 2$

117. What is the ratio of men to women enrolled in a certain class?
    I.   The number of women enrolled in the class in 3 less than half the number of men enrolled.
    II.   The number enrolled in the class in 2/5 of the number of men enrolled.

118.   What is value of b?

    I. $2a - b = 3$ II. $a = b - (1 - a)$

119. If a not= b, what is the value of a + b? I. $a^2 - \dfrac{b^2}{a} - b = 6$

    II. $(a + b)^2 = 36$

120. If $22^m + 1 = 2^{n + 2}$, what is the value of m + n?
    I. $2^3 n - 1 = 256$ II. $2^{m + 2n} = 256$

SECTION V INDIAN AND GLOBAL ENVIRONMENT

The fifth and last section was on *General Awareness,* there were 40 questions on surrounding environment weer asked in th sections. Some questions were from *Business and Economics.* Some recalled questions are as follows

1. Commonwealth Games 2001 were held at
2. UNO Day is celebrated on
3. G-15 is a group of
4. Which of the following is not a permanent member of UNO
5. The capital of *Arunachal Pradesh* is
6. Who is the present leader of opposition of *Rajya Sabha?*
7. Raoorkela Steel Plant is established with the help of
8. Meeting of Rajya Sabha are presided by
9. Kuchipuri is the folk dance of which country? **J**
10. Merdeka cup is related to which sports
11.   *Gautam Singhania* is the CEO of which company?
12. *Mary Dierce* belongs to
13. Planning Commission has set out double per capita income by the year

16. Current average rate of growth our GDD is all set to double every .... year.
17. Avenger is a bike model launched by
18. NABARD stands for
19. American automobile industry executive have voted .... as the topmost outsourcing destination.
20. The adline '*Flying for everyone'* is associated with
21. Which tennis star was won maximum number of grand slam single titles so far
22. Which are the new promoters of *Dabhol company (DPC)*
23. Which of the following has become the hottest job sector/industry?
24. *P. Harikrishna* is associated with
25. One of the world's biggest gas resources was recently found in
26. The highest score in an innings in test cricket has so far been made by
27. The score in one thing in test cricket her his so give reach made by

28. *Lufthansa* is the airlines service of
29. *Nanavati commission* was appointed for
30. The currency of China is

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Overall Analysis

As the scores of this test are used a lot of institutes thus an exact cut-off cannot be provided.

But a score of approx. 110 + should be a very good scores for the best institutes accepting the MAT scores.