

# IMT Entrance Test

## December 28, 2003

We are happy to present a comprehensive analysis of this year's IMT entrance test. It has been recreated with the help of PT faculty and PT students from across the nation.

The entrance test for IMT had the same pattern as last year except introduction on managerial aptitude based questions. There were 6 sections in all. The number of questions in each section and sequence of sections was different. Following table represents the comparison of the test from last year's test :

	2002	Total number of Questions	2003	Total number of Questions
	Section - I	English Usage	30	English Usage
Section - II	Reading comprehension	30	Reading comprehension	20
Section - III	Analytical aptitude	30	Analytical aptitude + Managerial aptitude	40
Section - IV	Quantitative Aptitude	50	Quantitative Aptitude	50
Section - V	General Knowledge	40	General Knowledge	25
Section - VI	Reasoning ability	20	Reasoning ability	40

### A bird's eye view :

<b>Total Number of Questions</b>	:	200
<b>Total Time</b>	:	150 minutes
<b>The Marking Scheme</b>	:	The answers had to be marked with a HB pencil only. There was negative markings.
<b>Sectional cut-off</b>	:	There were no sectional cut-offs.

### Expected Cut off :

<b>IMT GHAZIABAD</b>	:	105 – 110
<b>IMT NAGPUR</b>	:	65 -70

Disclaimer: All these questions have been memorised by PT students. We are merely reproducing a few of them here in fragments to ensure that the huge community of students eagerly waiting to see an objective comparison of their performance gets the right picture.

## Detailed Sectional analysis :

### Section 1 Reading Comprehension

This section contained five RC sets of four questions each. The passages were small and direct questions were asked.

Passage No.	Number of words (approx.)	Subject	Number of Questions asked
I	425	Global Warming	4
II	600	Major problems of India	5
III	425	Climatic conditions of Antartica and its importance to world ecosystem.	4
IV	400	Nicholas Piramal Ltd. and its strategic planning.	4
V	400	BSNL and its Strategies.	3

### Section 2 English Usage

This section contained 25 questions and the break up of the section was :

<b>Fill in the blanks</b>	:	5 questions
<b>Sentence Correction</b>	:	5 questions
<b>Antonyms and Synonyms</b>	:	10 questions
<b>Analogies</b>	:	5 questions

Some of the questions reproduced by PT faculty and students are given below:

**DIRECTIONS** : Choose the ANTONYM for the following.

1. SUPERFICIAL
2. TETHER
3. NAIVETE
4. PANDEMONIUM
5. ESCHEW

**DIRECTIONS** : Choose the SYNONYMS for the following.

6. RETORSION
7. PURLIEU
8. VECTORIAL
9. COMPAGINATE
10. ECBETIC

**DIRECTIONS :** Verbal Analogies.

11. YOLK : EGG ::

- (1) Nucleus : Cell  
(3) Duck : Fowl

- (2) Stalk : Corn  
(4) Rind : Melon

**Ans. (1)**

12. WOOD : SAND ::

- (1) Oil : Polish  
(3) Boil : Burn

- (2) Metal : Burnish  
(4) Brick : Jag

**Ans. (2)**

13. VINDICTIVE : MERCY ::

- (1) Avricious : Greed  
(3) Modest : Dignity

- (2) Insightful : Hope  
(4) Skeptical : Truthfulness

**Ans. (4)**

14. RUFFLE : COMPOSURE ::

- (1) Flourish : Prosperity  
(3) Upset : Equilibrium

- (2) Provoke : Discussion  
(4) Hounded : Turmoil

**Ans. (3)**

15. BOUQUET : WINE

- (1) Chaff : Wheat  
(3) Yeast : Bread

- (2) Aroma : Coffee  
(4) Octane : Gasoline

**Ans. (2)**

**Section 3**  
**General Knowledge**

This section contained 25 questions which were on current happenings and who's who of which company.

**Some of the question reproduced by the PT faculty and students are given below.**

1. Who is the CEO of Infosys?

**Ans.** Nandan Nilekani

2. Who is the CM of Chattisgarh?

**Ans.** Raman Singh

3. Which cricketer endorses for a Bandaid company ?

**Ans.** Virendra Sehwag

4. Who is the CEO of Ashok Leyland?

**Ans.** R.Seshayee

5. 'Accord' is a car of a which company?

**Ans.** Honda

6. Spectramind has been bought by which company?

**Ans.** Wipro

7. Which film won the award in the 43rd National film awards festival?

**Ans.** Dweep

8. Which computer was developed by C- Dac company?

**Ans.** Param Gathak

9. 'Bosch' group is allied with which of the group in India?

**Ans.** MICO

10. Who is the CEO of Ranbaxy?

**Ans.** D S Brar

11. Which mobile phone service first bring the free incoming calls facility?

**Ans.** Hutch

12. Which football team won the Durand cup 2003?

**Ans.** Mohun Bagan

13. Which of the commercial bank does Amitabh Bachchan endorse?

**Ans.** ICICI

## Section 4 Reasoning Ability

**DIRECTIONS** (Questions 87 & 88) : Refer to the following information to answer the questions..

There are 6 members in a family P, Q, R, S, T, U, V out of which only 2 are females. One is a lawyer, one a professor, one a teacher, one a manager, one a doctor and one an engineer. No lady in the family is an engineer nor a lawyer. P is the grandfather of S and so on.. some more conditions were given based on which these questions were asked.

87. How is R related to V?

- |            |                     |
|------------|---------------------|
| (1) Mother | (2) Aunt            |
| (3) Sister | (4) Data inadequate |

**Ans.(4)** Data inadequate

88. What is T's profession?

- |                          |             |
|--------------------------|-------------|
| (1) Professor            | (2) Manager |
| (3) Professor or Manager | (4) Doctor  |

**Ans.(3)** Professor or manager

*Success Simplified !*

**DIRECTIONS** (Questions 89 to 92) : The tourism department has organized 4 hours sight seeing tours in the city of Mumbai. The department operates 7 buses for this purpose. Read below the schedule and timings of these buses and answer the questions.

The buses are marked alphabetically as A, B, C, D, E, F and G. From Monday to Friday, first bus leaves at 8 a.m. sharp. Subsequent buses leave at intervals of 45 minutes and 30 minutes alternatively. On Saturdays and Sundays, the first bus leaves at 7.30 a.m. and others follow regularly after a gap of one hour each. Bus 'E' leaves immediately after 'A' and is immediately followed by 'G'. Bus 'C' is not followed by any other bus. Bus 'F' leaves immediately before 'A', but not immediately after 'D'.

89. On Sunday, when bus 'D' complete its tour, which of the following buses will begin its tour?

- |       |       |
|-------|-------|
| (1) E | (2) G |
| (3) C | (4) B |

**Ans.(4)** B

90. If the gap after bus A leaves on Saturday-Sunday is increased by 30 minutes, at what time, tour of bus C will be completed?

- |            |             |
|------------|-------------|
| (1) 3 p.m. | (2) 6 p.m.  |
| (3) 7 p.m. | (4) 11 p.m. |

**Ans.(2)** 6 p.m.

91. At what time bus 'A' leaves on Saturday?

- (1) 9 a.m. (2) 10.30 a.m.  
(3) 11 a.m. (4) 11.45 a.m.

**Ans.(2)** 10 :30 pm

92. If the time gap between two buses is uniformly kept at 45 minutes from Monday to Friday, then the beginning of tour of bus 'C' will mark completion of tour of which of the following buses?

- (1) B (2) F  
(3) A (4) None of these

**Ans.(1)** B.

**DIRECTIONS** (Questions from 93 to 95) : In each of these questions, there are two statements A and B followed by two conclusions numbered I and II. Decide which of the given conclusions logically follows from the two given statements, disregarding common known facts.

**Mark (1) if only conclusion I follows.**

**Mark (2) if only conclusion II follows.**

**Mark (3) if neither I nor II follows.**

**Mark (4) if both I and II follow.**

93. **Statements**

- A. Alcoholic drinks are injurious to health.  
B. All old women drink whisky.

**Conclusions**

- I. All old women have poor health.  
II. All young women are in good health.

**Ans. (1)**

94. **Statements**

- A. All ants are hard-working.  
B. Some ants are lazy.

**Conclusions**

- I. All lazy are hard working.  
II. All hard working are lazy.

**Ans. (3)**

95. **Statements**

- A. All rivers are mountains.  
B. Some rivers are deserts.

**Conclusions**

- I. Some mountains are deserts.  
II. Some deserts are not mountains.

**Ans.(1)**



*Success Simplified!*

**DIRECTIONS** (Questions 96 to 99) : Read the information given below and answer these questions.

- (a) A cube has six sides, each of which has a different colour– black, blue, brown, green, red and white.
- (b) The red side is opposite the black.
- (c) The green side is between the red and the black.
- (d) The blue side is adjacent to the white.
- (e) The brown side is adjacent to the blue.
- (f) The red side is the bottom face.

96. The four colours adjacent to green are

- (1) black, blue, brown, red
- (2) black, blue, brown, white
- (3) black, blue, red, white
- (4) black, brown, red, white

**Ans. (4)**

97. Which of the following can be deduced from statements (a), (b) and (f)?

- (1) Black is on the top
- (2) Blue is on the top
- (3) Brown is on the top
- (4) Brown is opposite to black.

**Ans.(1)**

98. Which one of the statements given above adds no information that is not already given by the other statements?

- (1) (b)
- (2) (c)
- (3) (e)
- (4) (f)

**Ans.(3)**

99. If the red side is exchanged for the green side, and blue is swapped for black, which of the following is false?

- (1) Red is opposite to black.
- (2) White is adjacent to brown.
- (3) Green is opposite blue.
- (4) White is adjacent to blue.

**Ans.(2)**

**DIRECTIONS** : Study the following table, showing monthly sales of cars of five types by five automobile shops and answer these questions.

Type of Cars	Automobiles Shops				
	P	Q	R	S	T
A	1250	3500	1360	2240	2100
B	2100	3080	3700	4200	920
C	3460	4400	4860	4860	4760
D	900	680	700	1120	600
E	300	440	1200	1250	280

100. Which shop was the lowest sales of both type B and type E are compared the other shops?

- (1) P
- (2) Q
- (3) R
- (4) T

**Ans.(1) P**

101. Which shop has a share of 15% sales of the total of type D sold by all the shops ?

- (1) P (2) Q  
(3) R (4) T

**Ans.(4)** T

102. Which shop was the highest sale of each of these type?

- (1) P (2) Q  
(3) R (4) None of these

**Ans.(4)** None of these

103. Which shop sells cars of type B seven times that of types sold by it?

- (1) only P (2) only Q  
(3) Both P & Q (4) only T

**Ans.(3)** Both P and Q

**DIRECTIONS** : Study the following table, showing monthly sales of cars of five types by five automobile shops and answer these questions.

Hotel Name	Pleasant Stay	Desert Palace	Black Lagoon	Lake New	Classic	Radiant	Plaza
2003	65%	55%	70%	49%	71%	47%	59%
2002	43%	72%	76%	46%	64%	64%	63%
2001	63%	71%	65%	61%	58%	66%	65%
2000	72%	68%	60%	64%	61%	72%	49%
1999	81%	67%	64%	63%	59%	69%	45%

104. Which of the following statements is true?

- (1) The lowest average occupancy rate was in the year 2002.  
(2) The average occupancy rate in 1999 was greater than in the year 2000.  
(3) There is a gradual decrease in the average occupancy rate over the year.  
(4) The highest average occupancy rate was witnessed in 1999.

**Ans.(2)** The average occupancy rate in 1999 was greater than in the year 2000.

105. Which of the following statement(s) is/are false?

- (1) The average occupancy rate of Plaza was greater than that of Lake View.  
(2) The greatest average occupancy rate was witnessed in Pleasant Stay.  
(3) The average occupancy rate for Dessert Palace is greater than that of Black Lagoon.  
(4) All the statements are false.

**Ans.(4)** All the statement are false.

106. In which year was the rate of growth in occupancy rate the highest?

- (1) 1999 (2) 2000  
(3) 2001 (4) 2002

**Ans.(3)** 2001

107. Every year HCI gives special awards to the managers of those hotels that had achieved the best and second best occupancy rates. Which of the hotels has won this award at least twice?

- (1) Pleasant Stay and Lake View  
(2) Dessert Palace and Classic  
(3) Black Lagoon and Radiant  
(4) Lake View and Plaza

**Ans.(3)** Black Lagoon and Radiant.

**DIRECTIONS** : Study the following information carefully and answer these question.

**Indian Olympic Association is in the process of selecting a team of four athletes for participating in the relay race in the forthcoming Olympics. After watching their performance in the National Events, the Association has shortlisted seven athletes. Their names are Zacharia Yohanna Wasim Dalbir, Chakravarty, Bishan and Anil. The Association also wants that the team should be well-knit and friendly but is faced with a situation wherein Yohanna and Anil are not friendly, then Zacharia and Chakravarti don't see eye to eye with each other. To make the matters more difficult, Anil and Bishan do not like each other.**

Based on the above requirements and assumptions, answer the following.

108. If both Zacharia and Yohanna have to be included as experienced athletes, which of the other athletes must be in the team as well?

- (1) Dalbir and Chakravarty
- (2) Bishan and Dalbir
- (3) Bishan and Anil
- (4) Only Dalbir

**Ans.(2)** Bishan and Dalbir

109. If Bishan is selected and Yohanna is rejected, the team will consist of

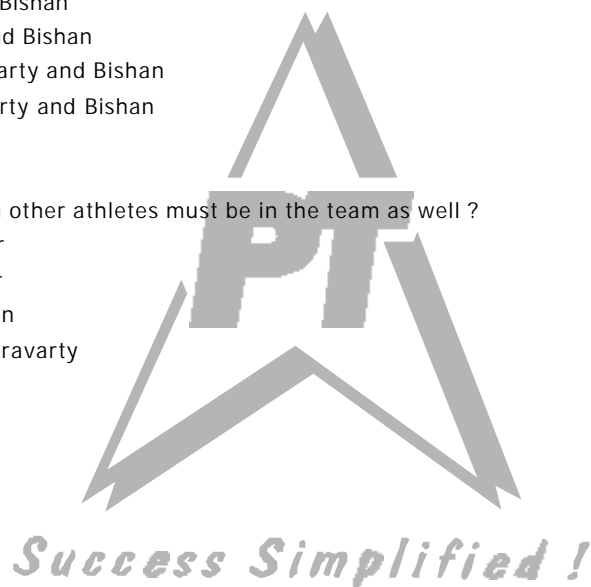
- (1) Wasim, Zacharia, Anil and Bishan
- (2) Wasim, Zacharia, Dalbir and Bishan
- (3) Wasim, Zacharia, Chakravarty and Bishan
- (4) Zacharia, Dalbir, Chakravarty and Bishan

**Ans.(2)**

110. If Anil is in the team, then which other athletes must be in the team as well ?

- (1) Zacharia, Wasim and Dalbir
- (2) Wasim, Yohanna and Dalbir
- (3) Wasim, Zacharia and Bishan
- (4) Wasim, Zacharia and Chakravarty

**Ans.(1)**





## Section 5

### Quantitative aptitude + Numerical aptitude

In this section 50 questions on mathematics and the break up of those was as follows :

Topic Name	Number of Questions
Averages	4
Time, Speed and Distance	3
Clock	1
Work and time	1
P and C	1
R and P	6
Agerealtion	1
Trigonometry	2
Partnership	1
SI and CI	2
Percentages	5
Profit and loss	5
Direction sense	1
linear equation	1
Mensuration -3D	7
Mensuration -2d	7
M & A	1
Partnership	1
Total	50

Some of the questions reproduced by PT faculty and students are given below.

111. A plane left 30 min later than the scheduled time and in order to reach the destination 1500 km away on time has to increase its speed by 250 km . Find its usual speed.

- (1) 750 kmph (2) 655 kmph  
(3) 550 kmph (4) 650 kmph

**Sol.** Go by options , if usual speed is 750 km/h it will take 2 hrs. and at  $750 + 250 = 1000$  km/h it will take 1.5 hrs.  
Hence, **Ans.(1)**

112. Rajender sold a watch at a loss of 5%, had he sold it for Rs.45 more, he would have gained 10%. The cost price of the watch was

- (1) Rs.220 (2) Rs.215  
(3) Rs.250 (4) Rs.300

**Sol.** Observe that 45 is equal to 15%(5% loss + 10% gain) of the cost price. Therefore, cost price = 300. **Ans.(4)**

113. A reduction of 25% in the price of apple would enable the purchaser to get 2 kg of apple more for Rs. 240. Find the reduced price of apples.

- (1) 35 (2) 45  
(3) 40 (4) 30

**Sol.**  $x \times y = 240$  and  $0.75x \times (y + 2) = 240$ , where x is the original price and y is the quantity purchased. Solving get,  $x = 40$  and  $0.75x = 30$ .  
**Ans.(3)**

114. What must be added to the number 6, 10, 14 and 22 so they become proportional?

- (1) 2 (2) 3  
(3) 4 (4) 5

**Sol.**  $\frac{6+x}{10+x} = \frac{14+x}{22+x}$ , on solving we have  $x = 2$ . **Ans.(1)**

115. A merchant purchased a wrist watch for Rs. 450 and fixes the list price in such a way that after allowing a discount of 10% he still gains 20%. The list price of the wrist watch is

- (1) 500 (2) 600  
(3) 700 (4) 750

**Sol.**  $450 \times 1.2 = 0.9x$  (where  $x$  is the list price),  $x = 600$ . **Ans.(2)**

116. A ladder 15m long reaches a window which is 9 metres above the ground on one side of the street. Keeping its foot on the same point, the ladder is turned to other side of the street to reach a window 12 metres high. The width of the street is

- (1) 19 (2) 20  
(3) 18 (4) 21

**Sol.** In the first case, length of the street is  $\sqrt{15^2 - 9^2} = 12\text{m}$ . In the second case, length of the road is  $\sqrt{15^2 - 12^2} = 9\text{m}$ . Total length of the road =  $12 + 9 = 21$ . **Ans.(4)**

117. A man goes 150m due east and than 200m due north. What is his distance from the starting point?

- (1) 150 (2) 200  
(3) 250 (4) 300

**Sol.**  $\sqrt{150^2 + 200^2} = 250$ . **Ans.(3)**

118. The mean of 100 items is found to be 30. If at the time of calculation two items were wrongly taken as 32 and 12 instead of 23 and 11. The correct mean is

- (1) 29.4 (2) 29.5  
(3) 29.8 (4) 29.9

**Sol.** An extra sum of 10 was added ( $32 + 12 - 23 - 11$ ), so the actual mean increased by  $\frac{10}{100} = 0.1$ . So, actual mean =  $30 - 0.1 = 29.9$ .

**Ans.(4)**

119. A man had some hens and some cows. In all there were 72 heads and 232 legs. How many hens in all did he have?

- (1) 28 (2) 44  
(3) 72 (4) none of these

**Sol.** Let no. of hens be  $x$  and no. of cows be  $y$ .  $\therefore x + y = 72$  and  $2x + 4y = 232$ . On solving, we have  $x = 28$ . **Ans.(1)**

120. The product of a boy's age of before 5 years and after 9 years is 15. Find his present age

- (1) 9 (2) 6  
(3) 5 (4) None of these

**Sol.**  $(x - 5)(x + 9) = 15$ , on solving we have  $x = 6$ . **Ans.(2)**

121.  $A : B :: 4 : 7$  and  $B : C :: 5 : 9$ , then find  $A : B : C$  ?

**Sol.**  $A : B : C :: 20 : 35 : 45$ . **Ans.**

122. A circle has a circumference of 132cm. A square is inscribed in the circle such that the vertices lie on the circumference. Find the area of the square.

**Sol.**  $2\pi r = 132$  or  $r = 21$ . The diameter of the circle (=42) is the diagonal of the square.

$\therefore$  The area of the square =  $\frac{42^2}{2} = 882\text{cm}$  **Ans.**

123. What is the angle subtended by the minute hand between 9 : 00 am and 9 : 35 am?

**Sol.** 5 min =  $30^\circ$ .  $\therefore$  35min =  $210^\circ$  **Ans.**

124. The ratio between the height of the pole to the shadow is  $1 : \sqrt{3}$ . Find the angle of elevation of the sun.

**Sol.**  $\tan x^\circ = \frac{1}{\sqrt{3}}$ . So,  $x = 30^\circ$  **Ans.**

125. Find the number of points if exactly 15 lines can be drawn by joining any two points.

**Sol.**  ${}^x C_2 = 15$ , solving we have  $x = 6$ . **Ans**

## Section 6 Analytical Aptitude (Managerial Aptitude)

In Analytical Aptitude section there were 10 questions asked on Data Sufficiency (4 option). One DI set of 5 questions was asked. One set of 10 questions was based on Managerial Aptitude. 15 questions were based on Critical Reasoning.

**DIRECTIONS :** Each of the following questions has two statements (A) and (B). Mark your answer as  
(1); if only statement (A) is sufficient to answer the question.  
(2); if only statement (B) is sufficient to answer the question.  
(3); if both the statements (A) and (B) are necessary to answer the question.  
(4); if neither of the statement is sufficient to answer the question.

1. Is  $x$  is greater than 0?

(A)  $x^3 + 1 = 0$

(B)  $x^2 - 1 = 0$

**Sol.** Only statement (A) is sufficient as only possible answer is  $x = -1$ . **Ans.(1)**

2. Is  $y > x$ ?

(A)  $x + y = 2$

(B)  $x/y = 2$

**Sol.** Both the statement are required to answer the question. **Ans.(3)**

3. Is  $n$  the square of an integer  $k$ ?

(A)  $n = 4i^2$  with  $i$  an integer

(B)  $n^2 = A^2 + B^2$  with  $A, B$  as integer

**Sol.** Only statement a is sufficient to answer the question **Ans.(1)**

4. Is  $xy < 0$ ?

(A)  $1/x < 1/y$

(B)  $x > 0$

**Sol.** Both the statement are not sufficient to answer the question **Ans.(4)**

5. A square had originally sides with length  $S$ . The length of the side is increased by  $x\%$ . Did the area of the square increase by more than 10%?

(A)  $x > 5$

(B)  $x < 10$

**Sol.** Both the statement are not sufficient to answer the question **Ans. (4)**

6. Is  $k^2 + k - 2 = 0$  ?

(A)  $k < 1$

(B)  $k < -2$

**Sol.** Only statement B is sufficient to answer the question. **Ans.(2)**

7. Which is larger  $a^b$  or  $b^a$ ? ( $a > 0$  and  $b > 0$ )

(A)  $a = 1$

(B)  $b > 2$

**Sol.** Both the statement are required to answer the question. **Ans.(3)**

8. Which of the four numbers  $w, x, y, z$  is the largest?

(A) The average of the four numbers is 25.

(B) The numbers  $w, x, y$  are less than 24.

**Sol.** Both the statements are required to answer the question. **Ans.(3)**

9. How many of the numbers  $x$  and  $y$  are positive?

(A)  $x < 5$

(B)  $x + y = 24$

**Sol.** Both the statements are insufficient to answer the question. **Ans.(4)**

### Managerial Aptitude Set

**DIRECTIONS :** The questions that follow relate to the passage given below. Evaluate, in terms of the passage, each of the items given, then select your answer from one of the following classifications.

- (1) A **Major Objective** in making the decision; one of the goals sought by the decision maker.
- (2) A **Major Factor** in making the decision; an aspect of the problem, specifically mentioned in the passage that fundamentally affects and/or determines the decision.
- (3) A **Minor Factor** in making the decision, a less important element bearing on/or affecting factor rather than a major objective.
- (4) A **Major Assumption** in making the decision, a projection or opposition arrived by the decision maker before considering the factors and alternatives.

A passage of 500 words (approx) was followed by 10 questions.

