

Aptitude Question Paper (2003)

Date: Duration: 90 minutes Max. Marks:

Instructions: 1) All the questions are compulsory.

- Figures to the right indicate the marks for each question of that section.
- Answer the questions by drawing a circle around the option that you think is correct

I. English Language Ability :

A. Part I [1 x 7 = 7 Marks]

Questions 1-7 are incomplete sentences. Beneath each sentence you will see four words or phrases, marked (A), (B), (C) and (D). Choose the one word or phrase that best completes the sentence.

- After the funeral, the residents of the apartment building _____
 a. sent faithfully flowers all weeks to the cemetery.
 b. sent to the cemetery each week flowers faithfully.
 c. sent flowers faithfully to the cemetery each week.
 d. sent each week faithfully to the cemetery flowers.
- Because the first pair of pants did not fit properly, he asked for _____
 a. another pants
 b. others pants
 c. the others ones
 d. another pair
- The committee has met and _____
 a. they have reached a decision
 b. it has formulated themselves some opinions
 c. its decision was reached at
 d. it has reached a decision
- Alfred Adams has not _____
 a. lived lonelyness in times previous
 b. never before lived sole
 c. ever lived alone before
 d. before lived without the company of his friends
- John's score on the test is the highest in the class; _____
 a. he should study last night
 b. he should have studied last night
 c. he must have studied last night
 d. he must had to study last night
- Henry will not be able to attend the meeting tonight because _____
 a. he must to teach a class
 b. he will be teaching a class
 c. of he will teach a class
 d. he will have teaching a class
- Having been served lunch, _____
 a. the problem was discussed by the members of the committee
 b. the committee members discussed the problem
 c. it was discussed by the committee members the problem

d. a discussion of the problem was made by the members of the committee

A.

Part II [1 x 7 = 7 Marks]

In question 8-14, each sentence has four underlined words or phrases. The four underlined parts of the sentence are marked (A), (B), (C), and (D). Identify the one underlined word or phrase that must be changed in order for the sentence to be correct.

1. The main office of the factory can be found in Maple Street in New York City.

- a. the main
- b. be found
- c. in
- d. in

2. Because there are less members present tonight than there were last night, we must wait until the next meeting to vote.

- a. less
- b. than
- c. were
- d. to vote

3. David is particularly fond of cooking, and he often cooks really delicious meals.

- a. particularly
- b. fond of
- c. often cooks
- d. really

4. The progress made in space travel for the early 1960s is remarkable.

- a. progress
- b. made
- c. in space
- d. for

5. Sandra has not rarely missed a play or concert since she was seventeen years old.

- a. not rarely
- b. a play
- c. since
- d. was seventeen years old

6. The governor has not decided how to deal with the new problems already.

- a. The
- b. has
- c. how to deal with
- d. already

7. There was a very interesting news on the radio this morning about the earthquake in Italy.

- a. there was
- b. a
- c. on the
- d. about

A.

B. Part III [1 x 6 = 6 Marks]

In question 15-20, the given pair of words contains a specific relationship to each other. Select the best pair of choices which expresses the same relationship as the given.

1. PROCRASTINATOR : DELAY ::

- a. flatterer : undermine
- b. genius : creativity
- c. tyrant : influence

- d. general : salute
2. APIARY : BEE ::
a. mountain : skier
b. airport : flight
c. schedule : event
d. stable : horse
3. OVATION : APPLAUSE ::
a. grief : loss
b. rout : defeat
c. triumph : failure
d. pathway : ruin
4. DOLPHIN : FLIPPER ::
a. insect : antenna
b. burglar : mask
c. gull : wing
d. plane : radar
5. WATERTIGHT : MOISTURE ::
a. hermetic : air
b. combatant : strife
c. somnolent : boredom
d. ocean : shore
6. PLAYWRIGHT : SCRIPT ::
a. composer : score
b. physician : diagnosis
c. verse : poet
d. king : parliament
A. Part IV [1 x 5 = 5 Marks]

In question 21-25, choose the best word, which is most opposite in the meaning to the given word.

1. LUCID
a. underlying
b. complex
c. luxurious
d. tight
2. LATITUDE
a. frenzy
b. attitude
c. altitude
d. restriction
3. GRATUITOUS
a. Noticeable
b. Useful
c. Needful
d. Original
4. MERITORIOUS
a. Simple
b. Inferior
c. Unrewarding
d. Young
5. VOUCHSAFE
a. steal
b. postpone
c. refuse

d. injure

A. Passage Comprehension [1 x 7 = 7 Marks]

Line 1. A recent investigation by scientists at the U.S. Geological Survey shows that strange animal behavior might help predict earthquakes. Investigators found such occurrences within a ten-kilometer radius of the epicenter of a fairly recent quake. Some birds screeched and flew about wildly; dogs yelped and ran around uncontrollably.

Line 5. Scientists believe that animals can perceive environmental changes several hours or even days before the mishaps. Animals were noted as being restless for several weeks before a Tashkent, Uzbekistan, earthquake. An hour before the disaster, domestic animals refused to go indoors and dogs howled and barked furiously. In 1960, an earthquake struck Agadir in Morocco. Survivors recall that stray animals, including dogs, were seen streaming out of town before the earthquake. In a safari zoo near San Francisco, llamas would not eat the evening before a 1979 quake, and they ran around wildly all night.

Line 12. Unusual animal behavior preceding earthquakes has been noted for centuries. British Admiral Robert Fitzroy reported huge flocks of screaming seabirds over Concepcion, Chile, in 1835. An hour and half later, dogs were seen fleeing, and ten minutes later the town was destroyed. Similar stories of chickens running around in apparent states of panic, horses trembling and dogs barking incessantly were recorded throughout the eighteenth and nineteenth centuries by survivors of earthquake destruction in India, Yugoslavia, Peru, Mexico and the United States.

Line 18. In 1976, after monitoring bizarre animal behavior, the Chinese predicted a devastating earthquake. Although hundreds of thousands of people were killed, the government was able to evacuate millions of others people and thus keep the death toll at a lower level.

1. What prediction may be made by observing animal behavior?

- a. An impending earthquake
- b. The number of people who will die
- c. The ten-kilometer radius from the epicenter
- d. The fact that an earthquake has occurred.

2. The author implies that animals are aware of an impending earthquake because

- a. Of their intelligence
- b. They have certain instinctive abilities to perceive that humans do not possess
- c. They are generally closer to the epicenter than the human observers
- d. They react to other animal behaviors

3. The word "evacuate" in line 20 closest in meaning to

- a. remove
- b. exile
- c. Destroy
- d. emaciate

4. All of the following statements are true EXCEPT

- a. some animals may be able to sense an approaching earthquake
- b. by observing animal behavior scientists perhaps can predict earthquakes
- c. the Chinese have successfully predicted an earthquake and saved many lives
- d. only dogs and horses seem to possess the special perception that allows them to predict earthquakes

5. In line 3 the word "epicenter" is nearest in meaning to

- a. stratosphere
- b. Contour
- c. Periphery
- d. Core

6. The passage implies that if scientists can accurately predict earthquakes there will be

- a. fewer animals going crazy
- b. a lower death rate
- c. fewer people evacuated
- d. fewer environmental changes

7. In line 18 "devastating" means most nearly the same as

- a. destructive
- b. voracious
- c. intense
- d. forthcoming

I. Logical and Analytical Reasoning Ability:

A. Part I : Logical Reasoning Ability [1 x 9 = 9 Marks]

For Question 1-5 : Six actors – Bob, Carol, Dave, Ed, Frank, and Grace – are auditioning for a part in an off-Broadway play. The auditions for a part in an off-Broadway play. The auditions will take place over four consecutive days, starting on a Thursday. Each actor will have one audition. The days on which the different actors will audition must conform to the following conditions :

At least one audition will take place on any day.

No more than two auditions will take place on any day

No more than 3 auditions will take place on any two consecutive days

Bob's audition must take place on Saturday

Carol's audition must take place on the same day as another audition

Frank's audition must take place on a day before grace's audition

Dave's audition must take place on a day after Ed's audition

1. if only one audition takes place on Thursday, which actor could have that audition

- a. Bob
- b. Carol
- c. Dave
- d. Frank
- e. Grace

2. If Bob's and frank's auditions are on the same day, which of the following must be true

- a. Dave's audition will take place on Thursday
- b. Dave's audition will take place on Friday
- c. Grace's audition will take place on Thursday
- d. Carol's audition will take place on Sunday
- e. Ed's audition will take place on Sunday

3. If the director decides to two hold the auditions on Thursday and two on Sunday, how many actors would be eligible to audition on Friday

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

4. If Ed and Grace have their auditions on the same day, which of the following must be true?

- a. Ed's audition will take place on Thursday
- b. Frank's audition will take place on Thursday
- c. Carol's audition will take place on Saturday
- d. Grace's audition will take place on Saturday
- e. Carol's audition will take place on Sunday

5. If Ed's audition is on Saturday, which of the following actors cannot audition on the same day as any other actor?

- a. Bob
- b. Carol
- c. Ed

- d. Frank
- e. Grace

For Question 6-9 : As part of their sports physicals, seven collegiate athletes - F, G, H, I, J, K & L - are being weighed. In announcing the results of the physical exams, the coach has given the following information:

None of the athletes is exactly the same weight as another athlete

K is heavier than L, but lighter than H

I is heavier than J

Both F and G are heavier than H.

6. Each of the following could be true EXCEPT

- a. F is the heaviest
- b. G is the heaviest
- c. I is the heaviest
- d. More than three athletes are heavier than K
- e. More than three athletes are lighter than K

7. Which of the following, if true, would be sufficient to determine which athlete is the lightest?

- a. I is the heaviest
- b. I is lighter than K
- c. K is heavier than J
- d. J is heavier than K
- e. Exactly five students are lighter than F

8. If J is heavier than F, how many different rankings, by weight, of the athletes are possible?

- a. 1
- b. 2
- c. 4
- d. 6
- e. 8

9. If H is heavier than I, which of the following CANNOT be true?

- a. I's weight is equal to the average of F's weight and G's weight
- b. I's weight is equal to the average of K's weight and L's weight
- c. J's weight is equal to the average of K's weight and L's weight
- d. J is the second lightest
- e. J is the lightest

A. Part II : Logical Reasoning Questions [2 x 8 = 16 Marks]

Select the best answer for each of the following questions.

1. Someone wishes to deduce the conclusion that there are at least two men in Calcutta who have exactly the same number of hair on their heads. He begins with a premise that there are more men in Calcutta than there are hair on the head of any person in the entire world (whether men or women).

The desired conclusion can be validly deduced

- a. From the original premise just as it stands
- b. If we add a premise that no man in Calcutta is completely bald, but not from the original premise as it stands.
- c. If we add the premise that there are at least as many men in Calcutta as women, but not from the original premise as it stands.
- d. Only if we add the premise that no man in Calcutta is completely bald, but not from the premise as it exactly stands.
- e. Only if we add the premise that there are at least as many men in Calcutta as women, but not from the original premise as it stands.

2. Department stores range from two to eight floors in height. If a store has more than three floors, it has an elevator.

If the statements above are true, which of the following must also be true?

- a. Second floors do not have elevators

- b. Seventh floors have elevators
 - c. Only floors above the third floors have elevators
 - d. All floors may be reached by elevators
 - e. Some two-floor department stores do not have elevators
1. A valid argument is often defined as one in which it is not possible for all the premises to be true and the conclusion false. A circular argument is sometimes defined as one on which one of the premises is identical to the conclusion.

From these definitions we can infer that...

- a. Every circular argument is valid
- b. Every argument is circular.
- c. No circular argument is valid
- d. Some circular arguments are valid, and some are not.
- e. Some circular arguments are not valid, and some valid arguments are not circular.

Questions 13 and 14 refer to the following scenario:

In a horse race involving six horses, three of the entries were Bag O'Bones, Cold Molasses, and Three-Leg Charlie. All six horses finished, one after the other.

1. No horse finished ahead of Cold Molasses, and no horse finished behind Bag O'Bones. Also, no horse finished between Cold Molasses and Three-Leg Charlie. Therefore,

- a. Cold Molasses finished second or third.
- b. Bag O'Bones came in fourth or better.
- c. Three-Leg Charlie finished second or third.
- d. Three-Leg Charlie may have finished first, but at least he did not finish last.
- e. Bag O'Bones finished ahead of Cold Molasses.

1. Four horses finished between Bag O'Bones and Cold Molasses. Therefore,

- a. Cold Molasses finished last.
- b. Bag O'Bones finished second or third.
- c. Bag O'Bones finished fifth.
- d. Three-Leg Charlie did not finish last.
- e. Either Bag O'Bones finished fifth, or Three-Leg Charlie came in third.

1. Administrators and executives are members of the most stable occupation.

The stability mentioned in the above statement could be dependent on each of the following factors except

- a. Training and skills.
- b. Nature of the occupation.
- c. Status
- d. Relatively high income
- e. Rate of turnover

1. A recent newspaper feature story listed several factors, as "predictors" of likelihood of premature death. Two of these factors were a sedentary life style without regular physical exercise, and sleeping more than 12 hours daily.

If a person were to respond to this news by both joining as an exercise club and buying an alarm clock, that person would probably be

- a. Mistaking an explanation for an argument
- b. Mistaking an argument for an explanation
- c. Mistaking a premise for a conclusion
- d. Mistaking a cause for an indicator
- e. Mistaking an indicator by a cause

1. Ellen : "All three of Shirley's children have the measles!"

Lois: "As a matter of fact, all three of Shirley's children are fine!"

Accepting the assumption that nobody who has measles is fine, which of the following is true about this exchange?

- a. It is possible that both Ellen and Lois are right about Shirley's children.
- b. It is possible that both Ellen and Lois are mistaken about Shirley's children.
- c. Either Ellen is right about Shirley's children, or Lois is right about them, but they are not both right.

d. Ellen and Lois might be both right about Shirley's children, and they might both be wrong about them.

e. None of these alternatives correctly identifies the possibilities for this scenario.

i. Problem Solving Ability

A. Part I : Problem Solving Ability [1 x 25 = 25 Marks]

1. A truck departed from Newton at 11:53a.m. and arrived in Far City, 240 miles away, at 4:41 p.m. on the same day. What was the approximate average speed of the truck on this trip?

- a. 16/1,200 MPH
- b. 40/288 MPH
- c. 1,494/240 MPH
- d. 50 MPH

1. If m, n, o and p are real numbers, each of the following expressions equals $m(nop)$ EXCEPT

- a. $(op)(mn)$
- b. $ponm$
- c. $(mn)(mo)(mp)$
- d. $(mp)(no)$

1. If the ratio of women to men in a meeting is 4 to 1, what percent of the persons in the meeting are men?

- a. 20%
- b. 25%
- c. $33 \frac{1}{3}\%$
- d. 80%

1. Tom received 89, 94, 86, and 96 on the first algebra tests. What grade must he receive on his last test to have an average of 92?

- a. 92
- b. 94
- c. 91
- d. 95

1. If the measures of the three angles of a triangle are $(3x + 15)$, $(5x - 15)$, and $(2x + 30)$, what is the measure of each angle?

- a. 75
- b. 60
- c. 45
- d. 25

1. Which of the following equations can be used to find a number x , if the difference between the square of this number and 21 is the same as the product of 4 times the number?

- a. $x - 21 = 4x$
- b. $x^2 - 21 = 4x$
- c. $x^2 = 21 - 4x$
- d. $x + 4 \times 2 = 21$

1. Emile receives a flat weekly salary of Rs.240 plus 12% commission of the total volume of all sales he makes. What must his rupees volume be in a week if he is to make a total weekly of Rs.540?

- a. Rs.2,880
- b. Rs.3,600
- c. Rs.6,480
- d. Rs.2,500

1. A and B undertake to do a work for Rs.56. A can do it alone in 7 days and B in 8 days. If with the assistance of a boy they finish the work in 3 days then the boy gets Rs.-

- a. 11
- b. 45

c. 43

d. 21

1. A postal truck leaves its station and heads for Chicago, averaging 40mph. An error in the mailing schedule is spotted and 24 minutes after the truck leaves, a car is sent to overtake the truck. If the car averages 50mph, how long will it take to catch the postal truck?

a. 1.6 hours

b. 3 hours

c. 2 hours

d. 1.5 hours

1. In a class of 40 students, 30 speak French and 20 speak German. What is the lowest possible number of students who speak both languages?

a. 5

b. 20

c. 15

d. 10

1. The value of B in the equation $a = (h/2)(B+b)$ is

a. $(2a - b)/h$

b. $2h/a - b$

c. $2a - b$

d. $2a/h - b$

1.

2. The perimeter of a square inscribed in the circumference of radius R is

a. 4R

b. 8R

c. $2R(2)^{1/2}$

d. $4R(2)^{1/2}$

1. If R, S, and Q can wallpaper a house in 8 hours and R and S can do it in 12 hours, how long will it take Q alone to wallpaper the house ?

a. 12 hours

b. 24 hours

c. 8 hours

d. 20 hours

1. An old picture has dimensions 33 inches by 24 inches. What one length must be cut from each dimension so that the ratio of the shorter side to the longer side is 2:3?

a. 2 inches

b. 6 inches

c. 9 inches

d. $10 \frac{1}{2}$ inches

1. In a group of 30 people the average height is 6 feet and 2 inches. Therefore, we can assume that

1. everyone is 6ft and 2 inches

2. most of the people are 6ft and 2 inches.

3. not all could be taller than 6ft and 2 inches.

a. 2 only

b. 3 only

c. 1 and 2 only

d. 1, 2 and 3

1. One wall being made entirely of bricks is 40% built. If we need 1,200 more bricks to complete the wall, how many bricks will the wall have ?

a. 1,500

b. 1,800

c. 2,000

d. 2,400

1. In a College Bookstore where all books are the same price, a + b books are selling for

Rs.1,000. Myron buys 12 books and for each one has a discount of Rs.1. How much does Myron need to pay ?

- $[(a + b) - 1] \times 12$
- $[(a + b)/1000 - 1] \times 12$
- $[(1000/(a + b)) - 1] \times 12$
- $[a + b] \times 1$

1. A square is inscribed in a circle of area 18p. What is the length of a side of the square ?

- 6
- 3
- $3(2)^{1/2}$
- $6(2)^{1/2}$

1. A box contains 6 red marbles and 4 blue marbles. What is the probability that if 2 marbles are simultaneously drawn from the box, both will be red ?

- $2/3$
- $1/3$
- $1/2$
- $1/5$

1. If it is 250 kms from Delhi to Chandigarh and 120 kms from Delhi to Jaipur, what percentage of the distance from Delhi to Chandigarh is the distance from Delhi to Jaipur?

- 12
- 24
- 36
- 48

1. A car goes 15 kms on a litre of petrol. When it is driven at 60 kms per hour it only goes 80% as far. How many litres of petrol will it take to travel 120 kms driving at 60 kms per hour?

- 2
- 6.4
- 8
- 9.6

1. The solution of the equation $4 - 5(2y + 4) = 4$ is

- $1 - 2/5$
- 8
- 4
- 2

1. I went to Lucky Duck Casino and in the first game I lost one-third of my money, in the second game I lost half of the rest. If I still have Rs.1,000, how much money did I have when I arrived at the Casino?

- Rs.1,000
- Rs.2,000
- Rs.3,000
- Rs.6,000
- e.

1. For each Rupee spent by the sales department, the research department spends 20 paise. For every Rs. 4 spent by the research department, the packing department spends Rs.1.50. The triple ratio of the money spent by the sales department to the money spent by the research department to the money spent by the packing department can be expressed as

- 40 : 8 : 3
- 20 : 4 : 1
- 8 : 4 : 1
- 1 : 1 : 5
- 2 : 1 : 5

1. From the beginning to the end of 1996, the price of a rare book rose 20 percent. In 1997, it dropped 25 percent. In 1998, it rose 20 percent. What percent of 1996's starting price is 1998's starting price?

- a. 90
- b. 95
- c. 100
- d. 108

