REASONING TEST PAPER 1

Directions for questions 1 to 25

Each question is based on a passage. Select the best answer choice given

Passage1

A Company manufactures chairs. In 1994 its installed capacity was 3 lacs. Now it doubled in 1998 and remained the same in 1999. Through 1995-1997 it was 2/3 the capacity of 1998. Capacity utilization is inversely proportional to capacity. In all years except 1994 capacity utilization was below 100% though production increased steadily over the years. In 1994 it was 110%, 1995-85%, 1996-90%, 1997-91% and 1998-76%. In 1999 it was the same as 1996 levels.

The selling price was Rs4 per unit in 1994 increased at 10% per annum till 1996. In 1997 it was Rs5 per unit and thereafter it rose 20% per annum. Unit sales are 90% of production in 1994 and 1995 and 95% in 1997,1998,1999.

1996 was a boom year in which the company sold all that it produced in that year plus the inventory of the last 2 years (assume opening inventory to be zero in 1994). The company has been facing heavy competition and market share by value has been declining from 25% in 1994-95, it was 60% of that in 1998-99. 1996 & 1997 shares were equal to the average share of these 6 years. The company spends 4.33% of its sales revenue every year on advertising.

1. What was the production in 1997?
   1] 350,000 2] 360,000 3] 364,000 4] 365,000

2. What was the total sales revenue in 1996?
   1] 1,900,360 2] 2,066,680 3] 1,890,560 4] 2,135,500

3. What was the advertising expenditure in 1998?
   1] 112,545 2] 120,000 3] 135,000 4] 123,345

4. What were the unit sales in 1996?
   1] 427,000 2] 450,000 3] 360,000 4] 365,000

5. What was the total market in 1997?
   1] 84.39lac 2] 86.45lac 3] 79.69lac 4] cannot be determined

Passage2

IN organizing a newspaper 4 editors are required ;the managing editor, the news editor, the sports editor and the entertainment editor. The managing editor can work only on Wednesday mornings, Thursday afternoons and Friday the whole day. The news editor can work only on Monday afternoons, Tuesday and Thursday the whole day. The sports editor can work only on Monday afternoons, Tuesday mornings and Wednesday the whole day. The entertainment editor can work all day Monday and Wednesday only.

6. If the managing editor cannot edit until each of the others has completed atleast a full day of work, when is the earliest the managing editor can work?
   1]Wednesday afternoon 2]Friday morning
   3]Monday morning 4]Thursday afternoon

7. One of the editors must work completely alone for the whole day in order to prevent confusion and disorder. If no other editor can afford to lose his available time, then the only possible editor privileged with working alone is

(●) 1]The news editor on Tuesday ( ) 2]The managing editor on Friday
( ) 3]The sports editor on Monday ( ) 4]The entertainment editor on Thursday

Passage3

4 people Arti, Banti, Chetan and Dolly have together got Rs100 with them. Arti and Banti together have got as much money as Chetan & Dolly put together. Arti has got more money than Banti. Chetan has half as much money as Dolly has. Arti has Rs5 more than Dolly.

8. Who has got the most money?
(●) 1] Arti ( ) 2] Dolly ( ) 3] Chetan ( ) 4] Cannot be determined

9. How much does Banti have?
(●) 1] 12.03 ( ) 2] 11.6 ( ) 3] 13.3 ( ) 4] None of these

10. Who has got the second biggest sum?
(●) 1] Arti ( ) 2] Chetan ( ) 3] Dolly ( ) 4] Banti

11. What is the ratio of the amount with Chetan and Dolly?
(●) 1] 2:1 ( ) 2] 1:2 ( ) 3] 1:3 ( ) 4] 1:4

12. Who has got the least amount of money?
(●) 1] Banti ( ) 2] Arti ( ) 3] Chetan ( ) 4]Dolly

Passage4

The following is the list of instructions to be followed

Step1: x=0 A=2 B=3

Step2: If X<5 then do Steps3-6 otherwise Step7

Step3: Y=A+B replace A by B replace B by Y

Step4: Type Y

Step5: Increase X by 2

Step6: Goto Step2

Step7: Exit

13. When X=4 what value of Y is typed?
(●) 1] 12 ( ) 2] 8 ( ) 3] 13 ( ) 4] 5

14. Suppose Step5 is replace by 'Increase X by 5' then what would be the last value of Y typed?
(●) 1] 5 ( ) 2] 4 ( ) 3] 6 ( ) 4] 9

15. After the set of instructions is over at Step 7 what is the value of X

1] 5 2] 4 3] 3 4] 7

Passage 5

Five offices in Mumbai are run by five couples

Husbands: Bala, Girish, Jai, Jayesh, Pratap

Wife: Beena, Chand, Maya, Preeti, Sangeeta

Surname: Bakshi, Joshi, Natwar, Parikh, Sahni

Office: Air India, Jet, Ashiana, Indian Court, American Court

- No husband shares a first name initial with his wife; Only one husband who is not Pratap has an identical initial for his first name and surname, but none of the wives does
- The Air India is run by Jai and his wife
- Girish and Maya are one of the couples
- Chand's husband is Mr. Natwar
- Mrs. Joshi is the owner of Jet and Preeti is the owner of American Court; neither of them is married to Jayesh
- The office run by the Sahni has the word 'Court' as part of its name
- The Ashiana is not run by Mr.Parikh whose wife is not Sangeeta

16. Jai's wife is

1] Preeti 2]Chand 3] Maya 4] Beena

17. The Sahni's run the restaurant

1] Ashiana 2] Air India 3] Jet 4] Indian Court

18. Which of the men has the surname Natwar

1]Bala 2] Pratap 3] Jai 4] Jayesh

19. Which of the following women is Mrs. Joshi

1] Preeti 2] Chandni 3] Sangeeta 4] Beena

20. Bala's surname is

1] Parikh 2] Joshi 3] Bakshi 4] Sahni

Passage 5

Five brothers have among them a pair of twins who are neither the oldest nor the youngest. E

is older than C but younger than B. D is younger than 3 brothers

21. The youngest is

1] A 2] B 3] C 4] D

22. One of the twin pair is

1] B 2] C 3] D 4] E

23. The eldest is

1] A 2] B 3] C 4] E

24. The one who has as many elder brothers as younger brothers is

1] A 2] B 3] E 4] none of these

25. Who is the fourth brother

1] A 2] B 3] D 4] E

Explanation to Paper I

1. In 1997 production is 91% of capacity installed

Therefore=91*400,000/100

=364,000

Hence [3]

2. Inventory for 1994

Production in '94=330,000

Sales=297,000 therefore inventory=33,000

Inventory for 1995

Production in 1995=340,000

Sales in 1995=306,000 therefore inventory=34000

Sales for 1996=360000

Total sales=360000+34000+33000=427000 units

Sales revenue=427000*4.84

=2,066,680

Hence [2]

3.Production in 1998=456000 units

Sales=433200 units

Sales revenue=433200*6=2599200

Therefore advt. expense=2599200*4.33%

=112,545

Hence [1]

4. Inventory for 1994

Production in '94=330,000

Sales=297,000 therefore inventory=33,000

Inventory for 1995

Production in 1995=340,000

Sales in 1995=306,000 therefore inventory=34000

Sales for 1996=360000

Total sales=360000+34000+33000=427000 units

Hence [1]

5. Market share=80/4=20%

Sales revenue=345,800*5=1729000

Therefore market =1,729,000/0.20=86.45lac

Hence [2]

6. **Answer is [2]**

7.**Answer is [1]**

The following table can easily explain questions 8 to 12

Names	Arti	Banti	Chetan	Dolly
Amount	Rs38.4	Rs11.6	Rs16.6	Rs33.4

13. While X=0, Y=5, A=3, B=5

While X=2, Y=8, A=5, B=8

While X=4, Y=13, A=8, B=13

Hence [3]

14. While X=0, Y=5, A=3, B=5

If X is increased by 5 further values of Y will not be calculated.

Hence [1]

15. The last value of X is 4

Hence [2]

The following table explains the questions 16 to 20

Husband	**Wife**	**Surname**	**Office**
Jai	Beena	Parikh	Air India
Girish	Maya	Sahni	Indian Court
Jayesh	Chand	Natwar	Ashiana
Bala	Preeti	Bakshi	American Court
Pratap	Sangeeta	Joshi	Jet

16. [4] 17. [4] 18. [4] 19. [3] 20. [3]

The following table explains the questions 21 to 25

1	2	3	4	5
B	E	A	D	C

21. [3] 22. [4] 23. [2] 24. [1] 25. [3]