



LRDI Practice Test - 1

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Answer Key



Explanations



## LRDI Practice Test - 1

**Directions for questions 1 to 4:** Answer the questions based on the following information.

No.	Hotel name	Class given by WTDC	Address	No. of customers/year
1	Taj Residency	A	Pune, Maharashtra	15334
2	Taj Group	B	Trivandrum Kerala	11500
3	Apollo International	A	Jalgaon, Maharashtra	13450
4	Madhuban Deluxe	C	Jodhpur, Rajasthan	17995
5	Ashoka Group	B	Hyderabad, A.P.	12635
6	Mandar International	A	Mumbai, Maharashtra	15300
7	Lucky Palace	B	Bikaner, Rajasthan	5700
8	Blue Star International	C	Aurangabad, Maharashtra	14342
9	Cozy Inn International	C	Nagpur, Maharashtra	11782
10	Royal Palace	D	Calicut, Kerala	13500
11	Radisson	A	Vishakapatnam, A.P.	12637
12	Hyatt	B	Dhule, Maharashtra	13583
13	Le Meridian	B	Cochin, Kerala	10000
14	Hilton	C	Bangalore, Karnataka	17777
15	Renaissance	A	New Delhi	1500

**Note :**

- WTDC = World Tourism Development Corporation

## LRDI Practice Test - 1

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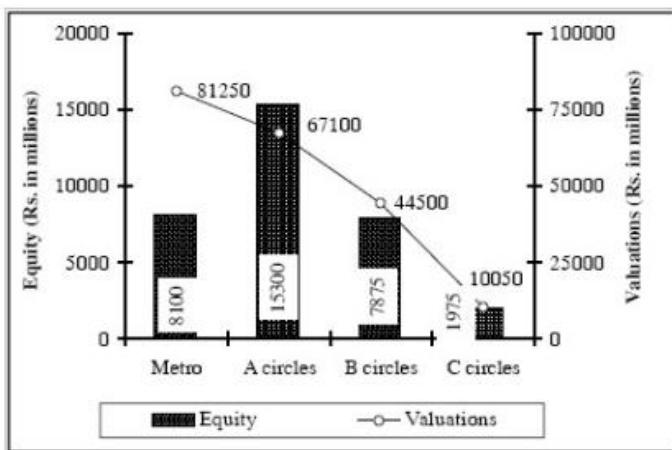
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**Note :**

1. WTDC = World Tourism Development Corporation
  2. State government can control the hotels only which lies in its territory.
  3. The hierarchical order of best to worst is A, B, C and D.
1. Maharashtra Government decides to add '+' in A class category, i.e. (A will become A+ and so on ...) if number of customers per year exceeds 13,450, then the number of such 'A' class hotels that will be changed to A+ is
- a. 1 b. 2 c. 3 d. 4 e. 5
2. How many hotels with more than 11,500 customers per year have grades better than C?
- a. 5 b. 6 c. 7 d. 8 e. 9
3. Due to a boost in tourism, 'grade A' hotels attracted 1,500 customer per year more than the given number, 'grade B' hotels attracted 1,000 customer per year more than the given number, 'grade C' hotels attracted 750 customer per year more than the given number, and 'grade D' hotels attracted 500 customer per year more than the given number. From the hotels with names starting with letters M and R, which hotel has the highest customers per year?
- a. Mandar International b. Madhuban Deluxe c. Radisson
  - d. Royal Palace e. Renaissance
4. If grades are reversed (i.e. A and D will interchange their grades and B and C will), then answer to question number 3 becomes
- a. Mandar International b. Madhuban Deluxe c. Radisson
  - d. Royal Palace e. Renaissance

**Directions for questions 5 to 8:** Answer the questions based on the following graph.

Following graph shows the Indian retail market valuations and equity in various regions for the year 2006. The bar graph indicates the equity and the line graph indicates the valuations. Each Indian state falls under only one of these circles.



5. The valuation of the companies is the least multiple of the equity in
  - a. Metro b. A -circles c. B-circles
  - d. C-circles e. Cannot be determined
  
6. If the total valuation of the retail market in 2006 is Rs. 20,290 crore, the combined share of metro and A-circles in the valuation of the retail market is
  - a. 69.29% b. 71.42% c. 73.11% d. 75.69% e. 61%
  
7. The Indian Government decided to write off losses in value of Rs. 1,000 crore, which were distributed in the ratio 4 : 5 for Metro and A-circle respectively, thereby increasing their valuation by these amounts. By what percentage should the equity of A circles be reduced so that their valuation to equity ratio equals that of B circle companies?
  - a. 1% b. 33% c. 16% d. 26% e. 25%

reduced so that their valuation to equity ratio equals that of B circle companies?

- a. 1% b. 33% c. 16% d. 26% e. 25%

8. If Delhi accounts for 42% of the metro valuation whereas Maharashtra and Karnataka account for 25% and 22% of the A-circles valuation respectively, then the ratio of their total valuation is

- a. 3 : 5 : 7 b. 28 : 40 : 45 c. 15 : 19 : 23
- d. 23 : 21 : 45 e. None of these

**Directions for questions 9 to 13:** Answer the questions based on the following information.

The figures in the table show the prices of five different stocks over a period of one week. The price given is the same for both buying and selling of stocks.

Stocks	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
A	198	200	204	199	201	203	205
B	1012	1025	1023	1030	1034	1067	1032
C	52	57	58	54	55	56	53
D	423	412	416	414	417	418	425
E	43	58	64	62	63	64	6

9. Which stock has registered the maximum percentage increase over the given 7 days?
  - a. A b. B c. D d. E e. C
  
10. Which investment strategy will result in a larger gain?
  - I. Buy 100 shares of A on day 1 and sell 50 shares each on days 5 and 6.
  - II. Buy 50 shares of B and C each on day 1 and sell on day 6.

III. Buy 100 shares of B on day 1 and sell 50 shares each on days 5 and 6.

a. I b. II c. III d. II and III e. All are same

11. If you define upper limit as 20% increase in price of the stock between any two consecutive days, which stock hits the upper limit over the period of 7 days?

a. Stock A b. Stock C c. Stock D d. Stock B e. Stock E

12. Which statement is true?

I. Stock C has given the least percentage return.

II. Stock E is the most volatile.

III. Stock A has given the second least percentage return.

a. Only I b. Both I and II c. Only II

d. All I, II and III e. None of these

13. If the stocks have the following weights

A - 20%,

B - 30%,

C - 25%,

D - 15%,

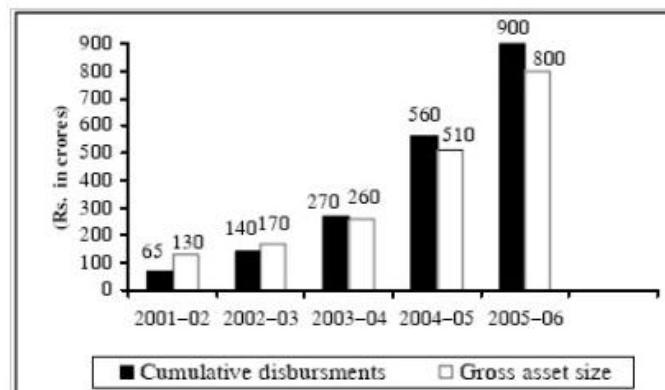
E - 10%

and the sensex is defined as the weighted average of prices of these stocks only, what is the change in the sensex value from day 4 to day 5?

a. 1% b. 0.55% c. 0.2% d. 0.4% e. None of these

**Directions for questions 14 to 16:** Answer the questions based on the following graph.

The following graphs give the cumulative disbursements and gross asset size of a finance company (Rupees in crores) for the period 2001-02 to 2005-06.



The table below shows the profit after tax and gross profit of the company for the period 2001-02 to 2005-06.

	2001-02	2002-03	2003-04	2004-05	2005-06
Profit after tax (Rs. In crores)	2	3	4	9.5	16.5
Gross profit (Rs. In crores)	8	12	14	21	33

14. What was the percentage increase in gross asset size from 2001-02 to 2005-06?

a. 615% b. 500% c. 623% d. 523% e. 515%

15. What was the total amount of disbursements (rupees in crores) from 2002-03 to 2004-05?

a. Rs. 560 crore b. Rs. 495 crore c. Rs. 970 crore

d. Rs. 1,130 crore e. Rs. 850 crore

16. What was the highest percentage increase in gross profits during any of the years over that of the previous year?

a. 50% b. 57% c. 53% d. 51% e. 45%

**Directions for Questions 17 to 20:** Answer the questions on the basis of the information given below.

The table below gives the fares of different carriers, which is the same as the cost incurred by each carrier (rail or air) to service its customers on various routes. Among the air carriers, Jet Airways and Indian Airlines are full-service airlines and Air Deccan is a low-cost airline. Assume fares are the only resource available to meet the cost-structure, unless otherwise stated.

#### The Fare Chart (in rupees)

Route Number	Routes	Jet Airways	Indian Airlines	Air Deccan	Rail II AC	Rail I AC
I	Bangalore-Hyderabad	4,700	4,705	2,375	1,211	2,286
II	Mumbai-Goa	3,405	3,410	2,135	1,232	2,345
III	Chennai-Bangalore	3,235	2,905	1,755	747	1,402

A person's log-in time is defined as the time taken by him/her to start working after the completion of journey.

Log-in time for a train journey is 2 hrs while for an aeroplane journey, it is 0 hr.

Cost structure of a full-service airline (%) (in India)	
Fuel	20
Depreciation	7
Interest	3.5
Marketing	8
Food/Passenger amenities	3
Airport charges	6
Administration	8
Salaries & Wages	27
Maintenance	14.5
Insurance	3
Total	100%

Cost structure of a low-cost airline (%) (in India)	
Fuel	26
Depreciation	1
Interest	3
Marketing & distribution	7
Airport charges	15
Administration	2
Salaries & Wages	12
Maintenance	19
Insurance	2
Capital costs	13
Total	100%

17. Mr. Sinha books some tickets for his family for different locations. Some of these tickets have been booked with Indian Airlines, some with Jet Airways and some with Air Deccan according to the following scheme:

Route	Carrier	Number of tickets
I	Jet Airways	3
II	Indian Airlines	4
III	Air Deccan	2

Approximately how much amount goes to meet the 'Fuel' expenses of all the carriers out of the total amount paid by Mr. Sinha?

a. Rs. 6,385 b. Rs. 6,460 c. Rs. 6,590 d. Rs. 6,861 e. None of these

18. Travel by Air and Rail I AC/Rail II AC takes 2 hrs and 7 hrs respectively in covering Bangalore-Hyderabad. Mr. Ravi Shankar is paid a fixed salary of Rs. 30,000 for a 30 days  $\times$  5 hr job. What is the loss/profit of the company, if the company sends him by Air Deccan instead of Rail I AC? (Assume the time taken in journey and log-in time is calculated within the job hours and there is no time involved except these. Assume no other factor has any role to play and during journey time or log-in time, he doesn't work. If the job-hour has ended on that day, then log-in time is calculated on next day. The total

expenses are calculated as the sum of fare and the salary of the period of time for which the employee has not worked during the job- hours.)

a. Rs. 311 profit b. Rs. 1311 profit c. Rs. 311 loss

d. Rs. 1131 profit e. None of these

19. In the previous question, what will be loss/profit of the company if it sends all its employees by Jet Airways instead of Air Deccan?

a. Profit of Rs. 1,014 b. Profit of Rs. 14 c. Loss of Rs. 14

d. Profit of Rs. 1,410 e. Cannot be determined

20. Sum of which of the following accounts form the maximum of the whole cost-structure of Indian Airlines?

a. Fuel, Maintenance

b. Maintenance, Fuel, Airport Charges

c. All others except Fuel, Maintenance and Depreciation

d. Salaries, Wages and Fuel

e. Airport charges and marketing

**Directions for questions 21 to 25:** Each question is followed by two statements, I and II. Answer each question using the following instructions:

Mark (a) if the question can be answered by using the statement I alone but not by using the statement II alone.

Mark (b) if the question can be answered by using the statement II alone but not by using the statement I alone.

Mark (c) if the question can be answered by using either of the statements alone.

Mark (d) if the question can be answered by using both the statements together but not by either of the statements alone.

Mark (e) if the question cannot be answered on the basis of the two statements.

21. What is the last digit of  $3^a - 2^b$  ?

I. Both a and b leave a remainder 3 when divided by 4.

II.  $a > b$

22. Alicia lost 60% of her matches during her first year of playing competitive handball. If she played no tie matches, what was her overall winning percentage in the first 2 years?

I. She won 73% of her matches in her second year.

II. She played twice as many matches in her second year as she played in her first.

23. Was Bharath early on time or late for his class if he was not on time for the class as per his watch?

I. He thought his watch was 15 min ahead of normal time.

II. Actually his watch was  $7\frac{1}{2}$  min behind normal time.

24. If  $d = \sqrt{3}$ , what is the value of r, if  $(r + d)^3 = d^3 + r^3$ ?

I.  $r < 0$

II. r is not equal to 0.

Mark (c) if the question can be answered by using either of the statements alone.

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25. Ram departs from Delhi towards Chandigarh at 10 a.m. and Shyam leaves Chandigarh for Delhi at the same time. At what time does Ram reach Chandigarh?

I. The ratio of speeds of Ram and Shyam is 2 : 3.

II. Shyam reaches Delhi at 12 noon, 20 min after crossing Ram.

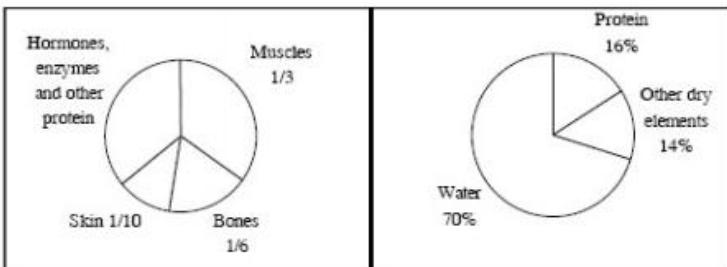
#### Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
25					

## LRDI Practice Test - 2

**Directions for questions 1 to 4:** Study the graphs given and then answer the questions. One graph gives the ratio of muscles, skin, bones and hormones, enzymes and other proteins in human body. The other graph shows the percentage of proteins, water and other dry elements in the human body.

1. What part of the human body is made of neither bones nor skin nor muscles?



- a.  $\frac{2}{5}$  b.  $\frac{3}{5}$  c.  $\frac{1}{40}$  d.  $\frac{3}{80}$  e.  $\frac{1}{20}$

2. What will be the quantity of water in the body of person weighing 50 kg?

- a. 20 kg b. 30 kg c. 71.42 kg d. 120 kg e. 35 kg

3. If skin is entirely made of proteins, then what per cent of the proteins is contributed to the skin?

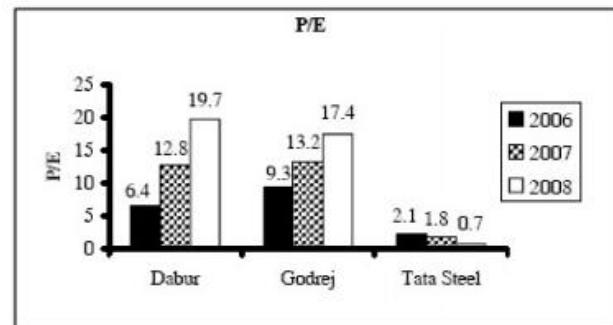
- a. 16.66% b. 10% c. 50% d. 62.5% e. 15%

4. What will be the angle subtended by the arc of the circle at the center which represents the portion of proteins and other dry elements in the human body?

- a.  $54^\circ$  b.  $126^\circ$  c.  $108^\circ$  d.  $252^\circ$  e.  $118^\circ$

**Directions for questions 5 to 8:** Answer the questions based on the following tables.

This graph gives the P/E ratio of three companies — Dabur, Godrej and Tata Steel — for three years, viz. 2006, 2007 and 2008.



This table gives the P/BV ratio of the three companies for the three years.

Company name	2006	2007	2008
Dabur	1.1	1.1	1.7
Godrej	3.1	6.2	5.4
Tata Steel	2.9	1.6	0.4

Average price of the shares of the three companies for the three years:

**Average price (Rs.)**

Company name	2006	2007	2008
Dabur	64	178	242
Godrej	940	1270	1140
Tata Steel	17	12	7

P/E = Average price to earning

P/BV = Average price to book value

Average price = Average price of share in that particular year

Following guidelines were followed during the three year period.

I. 50% of profit has to be paid, by way of taxes when shares are sold.

II. There are no shares at the beginning of 2006.

III. Sell 500 shares of a company in a year, if its P/E decreases by greater than 25% in that year.

IV. Buy 1,000 shares of a company in a year, if its P/E increases by greater than 25% in that year.

V. Buy 1,000 shares of a company in a year, if the average price of its share decreases by more than 20% in that year.

5. Which company share appreciated most from 2006 to 2008 in terms of change in average share price?

a. Dabur b. Godrej c. Tata Steel d. Both Dabur and Godrej e. Cannot be determined

6. Which company's P/E ratio has appreciated the most from 2006-2008?

a. Dabur b. Godrej c. Tata Steel d. Both Dabur and Godrej e. Both Godrej and Tata Steel

7. If an investor apply guideline number II and V for Godrej from 2006 to 2008, what will be his portfolio at the end of 2008?

[Note: Portfolio means number of shares and market value.]

a. 1500, Rs. 14,40,000 b. 800, Rs. 9,60,000 c. 1000, Rs. 13,20,000 d. o, o e. Cannot be determined

8. If Shivku applies rules II, III and IV for Dabur from 2006-08, how much tax did he pay in both the years together?

a. Rs. 6,45,000 b. Rs. 4,50,000 c. Rs. 5,60,000 d. Rs. o e. 5,50,000

**Directions for questions 9 to 12:** Refer to the table below and answer the questions that follow. Following table gives the statistics of all the bowlers in a match between Pakistan and India.

Pakistan	O	M	R	W	India	O	M	R	W
	10	3	32	3		11	4	21	1
Razzaq	12	4	24	1	Amarnath	10	1	23	1
Saqlain	11	1	24	2	Azhar	3	0	7	0
Yunus	1	0	8	0	Shastri	7	0	12	3
Imran	11	1	49	2	Azad	12	2	31	3
Afridi	9.4	2	26	2	Binny	9	1	32	2

O → Overs bowled

M → Number of over in which no runs was scored

R → Runs given

W → Wickets taken

Extras → Run conceded in addition to total runs conceded by bowlers

9. Which bowler had least number of balls bowled per wicket?

a. Shastri b. Akram c. Razzaq d. Binny e. Afridi

10. Which bowler had conceded least number of runs per wicket?

a. Akram b. Azad c. Shastri d. Binny e. Imran

11. Who conceded least runs per over?

a. Razzaq b. Maninder c. Yunus d. Shastri e. None of these

12. How many runs did India score in the match?

a. 126 b. 163 c. 144 d. 140 e. Cannot be determined

**Directions for questions 13 to 16:** Answer the questions based on the following information.

The table below gives the various values of the indicators of human development in various states of India.

State	Indicators of human development					
	Literacy rate (In %) 1991	Female literacy rate (%) 1991	Avg. no. of years of schooling 1987-88	Infant mortality rate years avg. 1988-90	Life expectancy combined 1981-86	PC SDP (in Rs.) 1989-90
Andhra Pradesh	45.10	33.70	4.52	78	58.00	1743
Assam	53.40	42.70	3.15	89	52.40	1650
Bihar	38.50	23.10	4.00	88	54.10	981
Gujarat	60.90	48.50	4.43	83	56.80	2629
Haryana	55.30	40.90	3.98	80	60.60	3193
Karnataka	56.00	44.30	3.92	75	60.60	2109
Kerala	90.60	86.90	4.01	22	67.60	1500
Madhya Pradesh	43.50	28.40	3.61	116	52.40	678
Maharashtra	63.10	50.50	4.31	62	60.20	3281
Orissa	48.60	34.40	4.06	122	53.00	1557
Punjab	57.10	49.70	4.37	61	64.30	3658
Rajasthan	38.80	20.80	3.50	94	55.10	1669
Tamil Nadu	63.70	52.30	4.15	70	58.10	1864
Uttar Pradesh	41.70	26.00	3.69	113	49.10	1572
West Bengal	57.70	47.20	4.27	70	56.60	1989
All India	52.10	39.40	4.15	88		

13. If the female population in India is 430 million in 1991, how many of them (in millions) are literate?

a. 224.03 b. 202.3 c. 159.4

d. 143.6 e. 169.4

14. What is the all-India average life expectancy combined (1982-86)? [If all-India is represented by these 15 states]

a. 38.92 b. 58.16 c. 53.21

d. 54.21 e. Data insufficient

15. If the number of people in Maharashtra in 1991 were 19 million, how many of them (approximately) were illiterate?

a. 7. 6 million b. 12 million c. 16.5 million

d. 13.5 million e. None of these

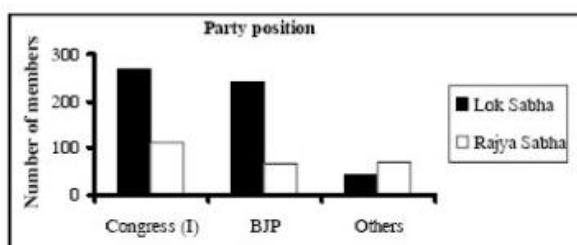
16. If Assam, Bihar, Haryana, Orissa, Punjab and West Bengal represent northern India, then the infant mortality rate of northern India is \_\_\_ than all-India infant mortality rate for the period 1988-90?

a. more by 3 b. less by 3 c. less by 5

d. Less by 7 e. Data insufficient

**Directions for questions 17 to 20:** Answer the questions on the basis of the information given below.

The following charts represent the profile of the members of Indian Parliament in 2003. The Indian Parliament consists of two different houses - Lok Sabha and Rajya Sabha. A member of Parliament belongs to one and only one of the two houses. The profile is represented with respect to the party the member belongs to, the sex, age, religion and professional background of the member. The Lok Sabha has a total of 550 seats and **the Rajya Sabha has a total of 250 seats.**



#### Age profile

	Rajya Sabha	Lok Sabha
Average	58 years	63 years
Eldest	67 years	81 years
Youngest	48 years	38 years

#### Religion profile

	Hindu	Muslim	Christian	Sikh	Others
Lok Sabha	383	82	24	21	40
Rajya Sabha	106	56	12	16	60

#### Professional and gender profile of members

Lok Sabha		Rajya Sabha
<b>Background</b>		
354	Leaders	152
64	Actors	26
26	Lawyers	24
12	Doctors	19
11	Engineers	4
83	Others	25
<b>Sex</b>		
398	Male	208
152	Female	42

17. If all lawyers and all women in the Lok Sabha vote in favour of the bill, how many more votes will

be needed for a majority? (Majority means more than 50% voting members of a given house vote in favour of the bill.)

a. 73 b. 72 c. 0 d. 98 e. Cannot be determined

18. What is the average age of the members of Parliament?

a. 61.4 b. 57.6 c. 63.2 d. 60.5 e. Cannot be determined

19. What can be the minimum number of Hindu males, who are the members of Rajya Sabha?

- a. 208 b. 106 c. 64 d. 66 e. None of these

20. What is the percentage of Congress (I) members in the parliament?

- a. 44.8% b. 47.37% c. 48.55% d. 45.6% e. Cannot be determined

**Directions for questions 21 to 25:** Each question is followed by two statements, I and II. Answer each question using the following instructions:

Mark (a) if the question can be answered by using the statement I alone but not by using the statement II alone.

Mark (b) if the question can be answered by using the statement II alone but not by using the statement I alone.

Mark (c) if the question can be answered by using either of the statements alone.

Mark (d) if the question can be answered by using both the statements together but not by either of the statements alone.

Mark (e) if the question cannot be answered on the basis of the two statements.

21. Is X greater than Y?

I.  $Y + |X| > 0$

II.  $Y - |X| > 0$

22. What is the arithmetic mean of a, b and c?

I. The arithmetic mean of a and b is 5.

II. The arithmetic mean of a and c is 9.

23. In a certain party, each of the guests was served either a single or a double scoop of ice cream. How many of the guests were served a double scoop of ice cream?

I. 60% of the guests were served a double scoop of ice cream.

II. A total of 120 scoops of ice cream were served to all guests at the picnic.

24. If 'n' is an integer, then 'n' is divisible by how many positive integers?

I. 'n' is the product of two different prime numbers.

II. 8 and 'n' are divisible by the same number of positive integers.

25. What is the unit's digit of the expression  $(5 \times ab)^{ab}$ , where ab is a two-digit number?

I.  $a \times b = 16$

II.  $a + b = 8$

#### Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
25					

## LRDI Practice Test - 3

**Directions for questions 1 to 3:** Answer the question after analysing the data.

### Carbon emission from fossil fuel burning - 1978

Country	Total emission (Tonnes in millions)	Emission per person (In tonnes)	Growth in emission per person (1974-78) (per cent)
Hungary	123	0.24	-23.5
India	1289	0.71	13
Pakistan	285	2.62	-0.3
Japan	597	5.26	-4.4
China	90	0.96	7.1
UK	356	2.39	21.6
Sri Lanka	954	3.08	24.1

1. In 1978, emission from UK accounted for approximately what percentage of the total emission by all the given countries?  
 a. 7% b. 8% c. 12% d. 6% e. 10%
2. In 1978, what was the approximate difference between the population of Hungary and Pakistan? (In millions)  
 a. 410 b. 403 c. 420 d. 430 e. 304
3. Which country had the maximum emission per person in 1978, out of the countries given?  
 a. Japan b. India c. UK d. Sri Lanka e. China

**Directions for questions 4 to 7:** Answer the questions based on the following information.

The management of commercial banks are feeling embarrassed because of a large growth in deposits in recent years. The profitability of banks has dipped as a result of slow industrial growth and the adoption of conservative policies. For banks, 1998-99 was a difficult year as there were downward adjustments in lending rates without any corresponding reduction in the net cost of funds.

Aggregate deposits increased by Rs. 1,11,861 crore and touched Rs. 7,17,271 crore in the 12 months ended in March 26, 1999. The total bank credit increased to Rs. 3,66,003 crore. With a down trend in yields on government and other approved securities, almost all banks have reported lower net profits in 1998-99. A few banks have even reduced their dividends.

The outlook for 1999-2000 is viewed with cautious optimism though the performance of some banks in April-June is not all that flattering. The main worry of bankers relates to the salvaging of non-performing assets (NPAs) to the extent feasible. Only then they can improve their net profitability in a short period.

The lending rates could decline on account of the need to stimulate the demand for credit as the inflation rate was at the lowest level since 1982 at 1.19% during the week ended July 24. Meanwhile, some banks have already revised interest rates on deposits. It remains to be seen whether the Rs. 8,00,000 crore mark can be exceeded in deposits as the increase during the year may still be Rs. 1,15,000 to Rs. 1,20,000 crore. A big effort has to be made to improve the credit deposit ratio. But the recent trend indicates that the credit off-take has not improved noticeably.

4. The percentage increase in aggregate deposits in the 12 months ended in March 26, 1999, is  
 a. 15.6% b. 18.5% c. 54% d. 15% e. Data insufficient

5. The credit-deposit ratio (bank credit to aggregate deposits in terms of percentage) in the year ending March 26, 1999, is

- a. 46% b. 51% c. 54% d. 45% e. Data insufficient

6. What should be the percentage increase in deposits to touch the Rs. 8,00,000 crore mark by March 2000?

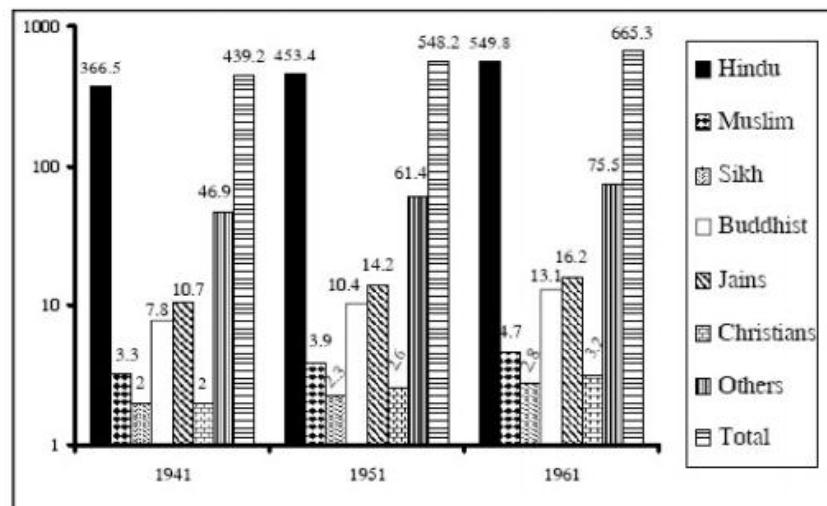
- a. 8.8% b. 9.6% c. 10.2% d. 13.5% e. 11.5%

7. If the deposits increase to Rs. 8,00,000 crore, credit should increase by what percentage to have a credit deposit ratio of 60%? (Credit-deposit ratio as defined in question 5).

- a. 27% b. 31% c. 37% d. 42% e. 45%

**Directions for questions 8 to 11:** Answer the questions based on the following information.

Following data is regarding Indian population (in millions) categorised based on religion, for the years 1941, 1951 and 1961.



8. The total population in 1971 is 20% more than that in 1961 and the Hindus comprise 78% of this population. What is the percentage increase in Hindu population from 1961 to 1971?

- a. 13.9% b. 14.3% c. 13.3% d. 13.8% e. 7.5%

9. How much did Hindu population contribute to the increase in total population from 1941 to 1951?

- a. 50% b. 60% c. 70% d. 80% e. 65%

10. What is the ratio of population of Hindus, Jains and others in 1941 to that in 1961?

- a. 2 : 3 b. 3 : 4 c. 4 : 5 d. 5 : 6 e. 7 : 1

11. If in 1971, Hindus and others population increase at the same rate as they grew in 1961, then what will be the ratio of Hindu population to others population in 1971?

a. 1 : 7 b. 1 : 6 c. 6 : 1 d. 6 : 5 e. 7 : 1

**Directions for questions 12 to 15:** Answer the questions based on the following information.

ESPM Ltd. has to compile the Rankings of 5 shortlisted teams and players according to following conditions.

- For ranking of teams, a team with highest win percentage gets the rank 1 & so on.

[Win % =  $(\text{Win} \times 100) / \text{Total matches played}$ ]

- For ranking of batsmen, the batsman with highest average is ranked first [Avg. =  $\frac{\text{Runs}}{\text{no. of outs}}$ ]

if there is a tie, the batsman with less no. of outs gets rank 1

if there is still a tie, the batsman scoring more runs gets the rank 1 & so on.

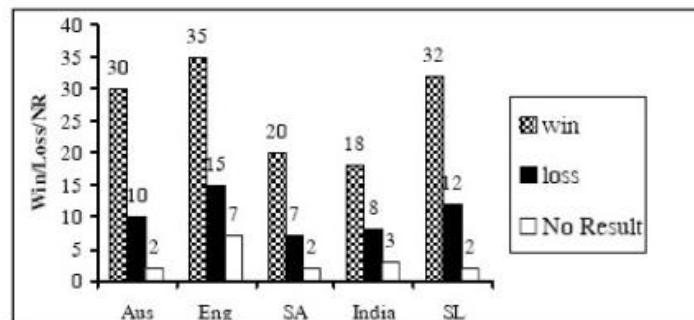
- For ranking of bowlers, the bowler with maximum wickets is ranked 1.

If there is a tie, one bowler who gives away more runs is rank 2 & so on.

Batsmen	Match	Innings	No. of not outs	Runs
1. Sachin Tendulkar (IND)	20	20	2	803
2. Rahul Dravid (IND)	20	16	3	604
3. J. Kallis (SA)	22	20	4	503
4. M. Hayden (AUS)	23	21	5	902
5. A. Strauss (ENG)	24	20	6	832

No. of outs = Total innings - No. of not outs

Bowlers	Overs	Runs	Wickets
1. McGrath	143.6	608	29
2. Shane Warne	154.3	703	33
3. Muralidharan	136.2	504	32
4. Harmisson	103	532	32
5. Pollock	104.4	604	36



**Note :** 1. No Result games are played

2. Total matches played = Win + Loss + No result

12. Which bowler ranks on top?

a. Pollock b. Shane Warne c. McGrath

d. M. Muralidharan e. Harmisson

13. Which batsman ranks first?

a. A. Strauss b. Rahul Dravid c. M. Hayden

d. J. Kallis e. Sachin Tendulkar

14. If  $\text{Avg}_1 = \frac{\text{Runs}}{\text{Total Innings}}$  &  $\text{Avg}_2 = \frac{\text{Runs}}{\text{Total Matches}}$

Which batsman shows highest difference between  $\text{Avg}_1$  and  $\text{Avg}_2$ ?

- a. Rahul Dravid b. J. Kallis c. Mathew Hayden

- d. A. Strauss e. Sachin Tendulkar

15. If Strike Rate =  $\frac{\text{Overs}}{\text{No. of wickets}}$ , which bowler has the best strike rate out of the following? (i.e. least no. of balls for a wicket)

- a. Harmissons b. Shane Warne c. Muralidharan

- d. Pollock e. McGrath

**Directions for Questions 16 to 20:** Answer the questions on the basis of the information given below.

The following table shows the details of various mutual fund schemes available in the market. The returns indicate the average return over the given time period (1-year or 3-year) in rupee terms.

Scheme	Assets (Rs. in crore)	Return 1-year	Return 1-year SIP	Return 3-year	Best 1-year return	Worst 1-yr return
HSBC Equity	1108.3	93.36	60.99	—	195.44	93.33
Reliance Growth	493.76	80.29	52.21	50.74	229.36	-56.73
Franklin India Prima	629.32	69.87	46.53	56.01	217.85	-47.60
DSPML Opportunities	604.39	68.88	39.59	36.68	166.83	-44.87
Franklin India Bluechip	1668.93	67.6	34.55	32.91	199.42	-36.54
Birla Dividend Yield Plus	433.74	61.67	27.97	—	146	60.81
Templeton India Growth	367.04	61.06	29.69	30.04	152.23	-39.49
Reliance Vision	658.62	59.69	26.59	56.12	212.39	-47.82
HDFC Equity	993.65	57.55	28.78	38.98	179.39	-40.23
HDFC Top 200	605.03	56.03	28.94	36.71	154.57	-38.98

According to the directives of SEBI, the scheme (among those given above) having the highest ratio of the difference between Best 1-year return and Worst 1-year return to the

asset of that scheme will be given a gold medal. The second-best ratio holder scheme gets a silver medal. The schemes having the worst two ratios will be barred from doing any business in future.

16. How many schemes are there with an asset of more than Rs. 500 crore and a ratio of Best 1-year return to Return 1-year more than 2?

- a. 5 b. 6 c. 7 d. 8 e. 9

17. Based on the SEBI's directive, which scheme will get the gold medal?

- a. Reliance Growth b. Franklin India Prima c. HSBC equity

- d. Reliance Vision e. HDFC Equity

18. Based on the SEBI's directive, which scheme will get the silver medal?

- a. Templeton India Growth b. Reliance Vision c. DSPML Opportunities d. HDFC Top 200 e. HDFC Equity

19. Based on the SEBI's directive, which two schemes will be barred from doing any business in future?

- a. HSBC Equity and Franklin India Blue-chip

- b. Birla Dividend Yield Plus and Franklin India Blue-chip

- c. HSBC Equity and HDFC Equity

- d. HDFC Equity and Franklin India Blue-chip.

- e. None of these

20. For how many companies, Return 1-year is at least 60% more than Return 1-year SIP?

- a. 9 b. 8 c. 7 d. 6 e. 5

**Directions for questions 21 to 25:** Each question is followed by two statements, I and II. Answer each question using the following instructions:

Mark (a) if the question can be answered by using the statement I alone but not by using the statement II alone.

Mark (b) if the question can be answered by using the statement II alone but not by using the statement I alone.

Mark (c) if the question can be answered by using either of the statements alone.

Mark (d) if the question can be answered by using both the statements together but not by either of the statements alone.

Mark (e) if the question cannot be answered on the basis of the two statements.

21. Five people P, Q, R, S and T are standing in a row. Who is standing at the middle position?

I. Q and R are standing at the extreme positions.

II. There is exactly one person standing between P and T.

22. Sukanta, Basisth, Stuti, Shikha, Mandar and Ritu are sitting around a circular table. Sukanta, Basisth and Mandar are males while the rest are females. Who are the neighbours of Sukanta?

I. Stuti does not want any male as her neighbour and Shikha does not want to sit along the side of Sukanta.

II. Mandar does not want any female as his neighbour and wants to sit to the left of Basisth.

23. Career Launcher, Career Forum, TIME, IMS and Erudite are the top five coaching institutes in India. Which one is the oldest?

I. Career Launcher is older than Career Forum and TIME but not older than IMS.

II. Erudite is older than Career Forum and TIME but not older than Career Launcher.

24. What is the unit's digit of the expression  $(72)^{xy}$ ? ( $xy$  is a two-digit number)

I. x is divisible by 4 and y is an odd multiple of 3.

II. x is divisible by 4 and y is an even multiple of 3.

25. Which fraction is greater,  $\frac{a}{b}$  or  $\frac{c}{d}$ ? ( $a, b, c, d$  are natural numbers.)

I. a is one less than c.

II. d is two greater than b which is twice of c.

#### Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
25					

## LRDI Practice Test - 4

**Directions for questions 1 to 3:** Answer the questions based on the following table.

The following table gives the food grain production in India (tonnes in lakhs) for the year 1985 for seven states and the 'others' include all the food producing states of India except those listed below.

State	Rice	Wheat	Jowar	Pulses	Others
Punjab	45	103	---	27	29
UP	48	86	73	19	14
Bihar	59	32	67	14	31
MP	41	37	59	21	15
Maharashtra	37	22	41	13	11
AP	68	15	12	---	18
Tamil Nadu	57	8	7	12	10
Others	38	28	31	22	45

1. What was the proportion of rice production to wheat production in India in 1985?  
a. 1 : 1 b. 0.8 : 1 c. 2 : 1 d. 1.2 : 1 e. 3 : 1
2. Jowar was the most important food grain in which of the following states during 1985?  
a. UP, Bihar and MP b. UP only c. Bihar and MP  
d. Bihar, MP and Maharashtra e. Tamil Nadu only
3. Punjab alone accounted for approximately what percentage of wheat production in India during 1985?  
a. 50% b. 73% c. 30% d. 41% e. 37%

**Directions for questions 4 to 7:** Answer the questions based on the given data.

The following table shows the number of students admitted into six colleges in a university through various quotas. The percentage distribution of general category students in college I, II, III, IV, V, VI is 16, 22, 35, 14, 8 and 5 respectively. Total number of students 500.

College	Handicapped	Outside university	Outside state	NRI	OBC	SC/ST	Industry-sponsored
I	2	3	2	5	10	15	2
II	1	2	2	5	12	16	1
III	3	4	4	5	11	18	1
IV	1	1	1	4	10	19	2
V	1	2	2	3	11	11	1
VI	2	3	3	5	13	10	2

4. The total number of OBC and industry-sponsored candidates in all the colleges is
  - a. greater than the total number of SC/ST students by 13
  - b. the same as the total number of SC/ST students
  - c. lesser than the total number of SC/ST students by 13
  - d. lesser than the total number of SC/ST students by 22
  - e. greater than the total number of SC/ST students by 22
5. The total number of outside university, outside state and OBC students of all colleges form what percentage of total students in college III?
  - a. 43% b. 23% c. 25% d. 30% e. 40%
6. Which college has total number of handicapped, outside university, NRI and OBC students equal to the total number of outside state, SC/ST and industry-sponsored students?

a. IV b. I c. II d. III e. V

7. With respect to college IV, students admitted through various quotas form what percentage of the general category students?

a. 50% b. 54% c. 44% d. 40% e. 35%

**Directions for questions 8 to 12:** Answer the questions based on the following information.

The table below gives the average annual growth rate of GDP (%) in 8 regions over the years 1980-96.

Region/Group	1980-1984	1984-1988	1988-1992	1992-1996
South-east Asia	2.6	2.0	1.9	2.0
Sub-Saharan Africa	2.5	2.4	2.3	2.2
Middle East	2.6	2.7	2.6	2.5
Western Europe	2.5	1.8	1.6	1.7
South America	2.6	2.5	2.6	2.3
South Asia	2.7	2.8	3.1	3.3
Australia	4.8	5.5	4.2	4.0
North America	1.0	0.7	0.6	0.5

8. Which of the following regions shows a consistent decrease in GDP?

- a. North America b. South Asia c. Middle East  
d. South America e. None of these

9. If Western Europe's GDP at the end of 1980 was \$1 trillion, what was its GDP at the end of 1988 (dollars in trillions)?

a. 1.185 b. 1.238 c. 1.0435 d. 1.280 e. 1.820

10. If all regions had the same GDP in 1980, then arrange the following regions in decreasing order of GDP growth during the period 1980-96.

I. South Asia

II. Middle East

III. Sub-Saharan Africa

IV. North America

a. I, II, IV, III b. I, II, III, IV c. I, III, IV, II d. IV, III, I, II e. II, IV, III, I

11. The regions given are aggregated into three broader groups.

Group 1 — North America, South America and Australia

Group 2 — South Asia, Middle East and South-East Asia

Group 3 — Western Europe and sub-Saharan Africa.

Which of the three groups would have registered the maximum growth percentage over 1984-92?

- a. Group 1 b. Group 2 c. Group 3  
d. Both Group 2 and Group 3 e. Data insufficient

12. If from 1997-2000, the regions of group 1 grew by 2.7% per annum, group 2 by 1.8% per annum and group 3 by 2.1% per annum, which of the following regions would have

recorded maximum growth during the years 1992-2000? (Use the groupings of the above question.)

- a. Middle East b. Western Europe c. South Asia
- d. South America e. Cannot be determined

**Directions for questions 13 to 16:** Answer the questions based on the given data.

The table below gives the unit cost of transportation of material with respect to three products A, B and C manufactured by PQR Ltd. to five warehouses  $W_1$ ,  $W_2$ ,  $W_3$ ,  $W_4$  and  $W_5$ . The production figures of the three products A, B and C are 240 units, 1,200 units and 840 units respectively.

Product	Transportation cost per unit (Rs.)				
	$W_1$	$W_2$	$W_3$	$W_4$	$W_5$
A	1.5	1.6	2.4	2	1
B	3	3.2	3	2.8	4
C	1.8	1.5	2	1.6	1.1

- 13. What is the total cost of transportation of all units of all the products to  $W_1$ ?
  - a. Rs. 5,278 b. Rs. 5,872 c. Rs. 5,274 d. Rs. 5,742 e. Rs. 5,472
  
- 14. If 48 units of A is transported to each of the warehouses, what is the average unit cost of transportation of A?
  - a. Rs. 1.70 b. Rs. 1.60 c. Rs. 1.65 d. Rs. 1.75 e. Rs. 1.50
  
- 15. Which of the following would involve the least cost?
  - a. Transporting 300 units of B to  $W_4$
  - b. Transporting 200 units of B to  $W_1$
  - c. Transporting 300 units of C to  $W_2$

- d. Transporting 400 units of C to  $W_5$

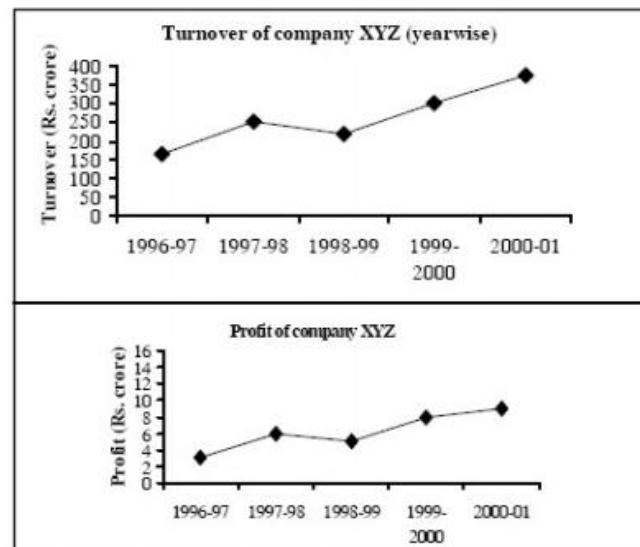
- e. Transporting 450 units of C to  $W_5$

16. By what percentage is the production of B more than that of A?

- a. 80% b. 25% c. 500% d. 400% e. 90%

**Directions for questions 17 to 20:** Answer the questions based on the given data.

Questions are based on the following graphs which show the turnover and net profit (rupees in crores) for a company XYZ from 1994-95 to 1998-99.



17. Which year had the highest increase in turnover in percentage terms?

- a. 1999-2000 b. 1997-98 c. 2000-01

d. 1998-99 e. Cannot be determined

18. In 1997-98 if XYZ accounted for 7% of total industry turnover and the total industry turnover increased by 10% next year, what was the company's share in industry turnover in 1998-99?

- a. 5.6%
- b. 9%
- c. 5%
- d. 6.5%
- e. 4.9%

19. What is the average annual growth rate in net profit from 1996-97 to 2000-01?

- a. 33%
- b. 115%
- c. 200%
- d. 75%
- e. 50%

20. Which year had the highest turnover to net profit ratio?

- a. 1997-98
- b. 1998-99
- c. 1996-97
- d. 2000-01
- e. Data insufficient

**Directions for questions 21 to 25:** Each question is followed by two statements, I and II. Answer each question using the following instructions:

Mark (a) if the question can be answered by using the statement I alone but not by using the statement II alone.

Mark (b) if the question can be answered by using the statement II alone but not by using the statement I alone.

Mark (c) if the question can be answered by using either of the statements alone.

Mark (d) if the question can be answered by using both the statements together but not by either of the statements alone.

Mark (e) if the question cannot be answered on the basis of the two statements.

21. What is Ravi's age?

I. 10 years hence Ravi will be twice as old as Ram would be.

II. Ram was born 5 years ago.

22. How many brothers and sisters are there in the family of 7 children?

I. Each boy in the family has as many sisters as brothers.

II. Each of the girls in the family has as many brothers as sisters.

23. If a rope is cut into 3 pieces of unequal length, what is the length of the shortest of these pieces?

I. The combined length of the 2 longer pieces of the rope is 10 m.

II. The combined length of the 2 shorter pieces of the rope is 9 m.

24. Mike has some silver coins and some bronze coins in his pocket. How many coins does he have? (A silver coin costs Rs. 5 and a bronze coin costs Re 1.)

I. The total value of the coins in Mike's pocket is Rs. 32.

II. Mike has more silver coins than bronze coins in his pocket.

25. C and R are father and mother of K respectively. Together, C and R have 8 siblings all of whom are unmarried. How many uncles does K have?

I. C does not have any brothers.

II. R has 4 siblings.

### Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
25					

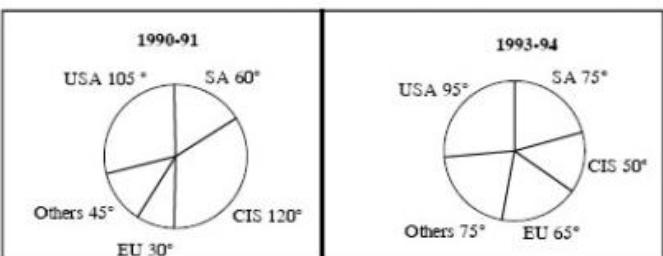
## LRDI Practice Test - 5

**Directions for questions 1 to 4:** Refer to the table and pie chart below and answer the following questions.

### Volumewise automobile exports from India (all figures in hundreds)

Type	1990-91	1991-92	1992-93	1993-94	1994-95
Two-wheelers	1250	1317	1423	1320	1261
Three-wheelers	433	467	561	516	612
Cars	716	813	795	721	831
LMVs	823	756	826	803	904
LCVs	1012	983	1058	968	1051
HCVs	913	1003	1101	1063	1167

### Volumewise share of various region in total automobile exports from India



1. What is the percentage change in exports of automobiles excluding HCVs in 1993-94 as compared to 1990-91?

a. 2.2% increase b. 3.5% decrease c. 3.9% decrease

d. 4.7% decrease e. 3.7 % increase

2. How many more two-wheelers were exported to EU in 1993-94 as compared to 1990-91?

a. 12,900 b. 13,100 c. 13,400

d. 11,700 e. Data insufficient

3. If the average price of a car in 1992-93 was Rs. 3,00,000 and the government charges 11% export duty, then what will be the total revenue of government through duty on exports of cars in 1993-94, given that average price of cars goes up by 20% in 1993-94 and the duty remains the same?

a. Rs. 28.5 crore b. Rs. 26.5 crore c. Rs. 265 crore

d. Rs. 285 crore e. Rs. 2.85 crore

4. What was the foreign currency earned in US dollars in 1990-91 by exporting LCVs and LMVs, if all LCVs and LMVs were exported that year only to EU? Given that the average price of LCVs and LMVs is Rs. 5.5 lakh and Rs. 4.2 lakh respectively in 1990-91. (1 Euro = US \$1.2 and US \$1 = Rs. 42.5)

a. \$19 million b. \$20.5 million c. \$22 million

d. \$21.2 million e. \$23.5 million

**Directions for questions 5 to 8:** Answer the questions based on the given data.

### Labour and production data for XYZ Ltd.

Year	Production (tonnes)	Number of workers	Hours worked per day per person	Hourly wages (Rs.)
1970	550	1300	12	125
1975	700	1500	13	140
1980	850	1650	12	150
1985	1225	2000	11	175
1990	1550	2200	10	200
1995	1875	2500	9	250
2000	2300	2950	8	275

Number of days worked per year = 250 and Productivity = Production / Number of workers.

All workers worked for all days in the given year.

5. The expense incurred by the company for wages, was the highest in

a. 1975 b. 1980 c. 1995 d. 2000 e. 1985

6. The year in which the least number of man-hours worked is

a. 1970 b. 1985 c. 1995 d. 2000 e. 1975

7. Which of the following is true of XYZ Ltd.?

a. Total man-hours worked has first increased, then decreased, and then increased again

b. The companies wage bill has been rising every year at a decreasing pace

c. Percentage increase in production has always been higher than the increase in number of workers

d. A worker who has worked in all 7 years has always received higher wages over the previous period

e. None of these

8. If production values were achieved not by increase in workers but by workers putting in longer hours, then till which year production could be met using the labour force of 1970, productivity per hour remaining constant? [Workers are robots.]

- a. 1975 b. 1980 c. 1985 d. 1990 e. 1970

**Directions for questions 9 to 12:** Answer the questions based on the given data.

#### Terms of subscription for a magazine

Term	News-stand price (Rs.)	Special offer price (Rs.)	Number of issues
1 year	300	264	12
2 years	600	480	24
3 years	900	648	36
4 years	1200	768	48
5 years	1500	810	60

When you subscribe for 1 year to 3 years, please include postage charges of Rs. 24 per year of subscription. For a subscription of 3 years, you will receive a diary worth Rs. 60 as a gift. For a subscription of 4 years you will receive a special gift worth Rs. 100. For a subscription of 5 years, you will get a special surprise gift worth Rs. 300.

(Note: The effective cost is price minus cost of gifts plus cost of postage charges.)

9. The percentage decrease in special offer price per issue from one term to the next is maximum in which term?

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

10. What is the difference in the effective cost per issue, between a subscription for 2 years and subscription for 5 years?

- a. Rs. 11 b. Rs. 13.5 c. Rs. 8 d. Rs. 6.5 e. Rs. 9.5

11. For which subscription, the fraction of effective special offer price to news-stand price is the lowest?

- a. 2-year term b. 4-year term c. 3-year term d. 5-year term e. Cannot be determined

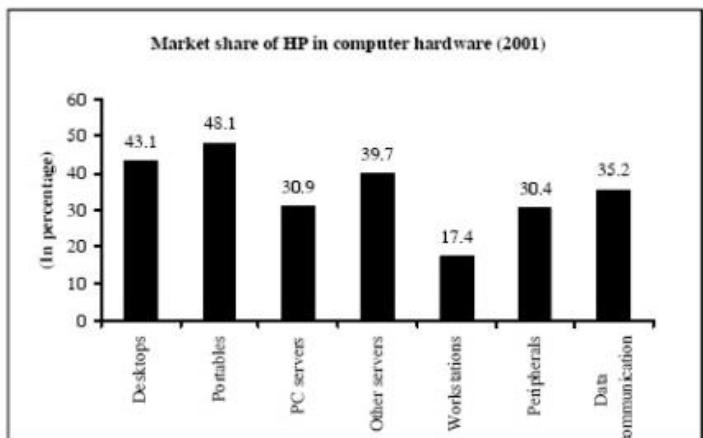
12. What is the effective cost per issue, for a special offer subscription of 3 years?

- a. Rs. 16 b. Rs. 17.33 c. Rs. 18.33 d. Rs. 19 e. Rs. 15.75

**Directions for questions 13 to 16:** Answer the questions based on the given data.

**Software applications - A segmentwise break-up (2001)**

	(in percentage)
Turnkey	40
Consultancy	8
Others	2
Training	10
Data processing	5
Products & packages	15
IT services	20



You can use the data derived from a question to answer further questions.

13. If training and consultancy in software applications is worth Rs. 1,250 crore in 2001, then what is the total market for software applications in 2001?

- a. Rs. 6,875 crore b. Rs. 5,695 crore c. Rs. 2,695 crore  
d. Rs. 14,440 crore e. Rs. 6,945 crore

14. What is the sales of HP in data communication hardware if sales of workstations by HP is Rs. 625 crore?

- a. Rs. 315 crore b. Rs. 1,275 crore c. Rs. 1,200 crore  
d. Rs. 75 crore e. Cannot be determined

15. If total sales of HP from hardwares is Rs. 2,500 crore divided equally among the 7 streams, then what is the total market for peripherals in 2001?

- a. Rs. 825 crore b. Rs. 3,174 crore c. Rs. 1,050 crore

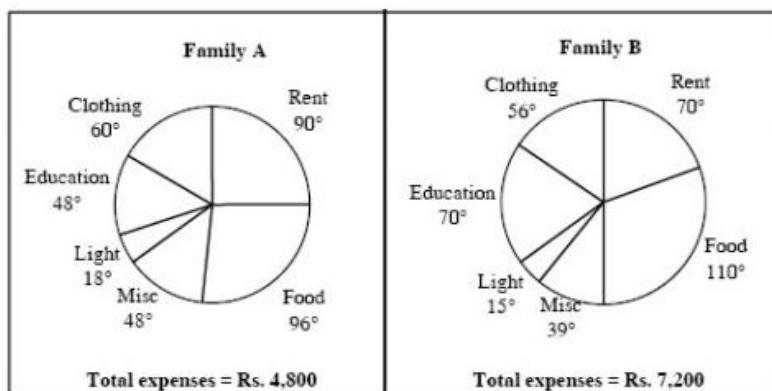
d. Rs. 1,174 crore e. Cannot be determined

16. Revenues from consultancy services as a percentage of revenues from PC servers for the software and hardware industry is ... [use data from question 13 and 15]

a. 48% b. 52% c. 27% d. 30% e. 53%

**Directions for questions 17 to 20:** Answer the questions based on the given data.

The two pie diagrams given below provide the relative expenses of two families A and B.



17. If the total expenses of A and B are doubled, the ratio of expenditure on 'light' would be

a. 1 : 1 b. 4 : 5 c. 2 : 3 d. 3 : 4 e. 5 : 6

18. The miscellaneous expense of A as a percentage of those of B is

a. 60% b. 50% c. 75% d. 80% e. more than 80%

19. The item showing the least difference in expenditure between A and B is

a. food b. light c. clothing d. miscellaneous e. education

20. The percentages of expenses of A and B on food are in the ratio

a. 55 : 48 b. 4 : 5 c. 5 : 4 d. 48 : 55 e. None of these

**Directions for questions 21 to 24:** Each question is followed by two statements, I and II. Answer each question using the following instructions:

Mark (a) if the question can be answered by using the statement I alone but not by using the statement II alone.

Mark (b) if the question can be answered by using the statement II alone but not by using the statement I alone.

Mark (c) if the question can be answered by using either of the statements alone.

Mark (d) if the question can be answered by using both the statements together but not by either of the statements alone.

Mark (e) if the question cannot be answered on the basis of the two statements.

21. LCM of 2 numbers is 630. What is the absolute difference between them?

I. HCF is 9.

II. The sum of the 2 numbers is 153.

22. The price per share of stock X increased by 10% over the same time period that the price per share of stock Y decreased by 10%. The reduced price per share of stock Y was what percentage of the original price per share of stock X?

I. The increased price per share of stock X was equal to the original price per share of stock Y.

a. food b. light c. clothing d. miscellaneous e. education

20. The percentages of expenses of A and B on food are in the ratio

a. 55 : 48 b. 4 : 5 c. 5 : 4 d. 48 : 55 e. None of these

**Directions for questions 21 to 24:** Each question is followed by two statements, I and II. Answer each question using the following instructions:

Mark (a) if the question can be answered by using the statement I alone but not by using the statement II alone.

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Mark (c) if the question can be answered by using either of the statements alone.

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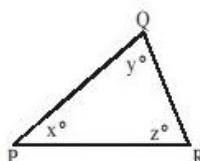
II. The increase in the price per share of stock X was  $\frac{10}{11}$  the decrease in the price per share of stock Y.

23. If  $\frac{x}{y} < 1$ , then is  $\frac{x-c}{y-c} < \frac{x}{y}$ ?

I.  $x, y, c > 0$

II.  $x < c < y$

24. What is the length of PR in the figure below?



I. QR = 4

II.  $x + z = 90^\circ$

#### Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
24					

## LRDI Practice Test - 6

**Directions for questions 1 to 4:** Answer the questions based on the given data.

Party	Change in seats obtained for every ±1% vote swing	Seats won in last election (Total seats = 200)
Democrats	3	90
Republicans	4	65
Liberants	1	12
Socialists	2	8
Others	3	2

1. If the percentage of vote swing in favour of the Republicans is the same as that against the Democrats, what will be the tally of seats for the Democrats if the Republicans win 97 seats?

- a. 44 b. 55 c. 88 d. 77 e. 66

2. If the number of votes polled increases by 1.1%, how many seats are the Democrats likely to get?

- a. 90 b. 99 c. 100 d. 75 e. Cannot be determined

3. Which of the following statements is definitely false?

I. There can be a swing of 20% in favour of the Republicans and 4% in favour of the Socialists.

II. There can be a swing of 8% in favour of the Democrats and 5% against the Socialists.

III. There can be a swing of 4% in favour of the Democrats and 9% in favour of the Republicans.

- a. I only b. I and II c. II and III d. I and III e. All are true

4. If the percentage of vote swing can be an integral value only, which of the following cannot be true?

I. The Democrats acquire a 60% majority in the house.

II. The Republicans acquire 50% of the total seats.

III. Others constitute 50% of the House.

- a. (i) and (ii) only

- b. (ii) only

- c. (ii) and (iii) only

- d. (i) and (iii) only

- e. All are true

**Directions for questions 5 to 9:** Answer the questions on the basis of the information given below.

In a query answering module called HelpMe, students ask their queries where each query is based on one of the four sections DI, LR, QA and VA. The queries enter the module as soon as they are asked and remain there until they are answered. All queries that are received in the first half of the day are counted as a part of that day and the ones received in the second half are counted as a part of the next day. There are four respondents viz. Dudi, Anu, Sam and Tiru responsible for answering the queries. Queries are answered only in the second half of the day.

The following table gives the number of unanswered queries of the previous week in each section by the end of the week.

Number of unanswered queries				
	DI	LR	QA	VA
End of last week	24	17	48	14

Information regarding the number of new queries received daily in the current week is given in the table below.

	DI	LR	QA	VA
Monday	10	2	5	2
Tuesday	12	5	2	3
Wednesday	8	2	5	0
Thursday	4	2	8	5
Friday	2	4	3	6
Saturday	4	5	1	7

- Queries based on VA section are answered only by Sam.
- Tiru answers queries based on QA section only. Sam answers queries on VA section only.
- In the current week, if the number of queries answered by Dudi, Anu, Sam and Tiru on any day (from Monday to Saturday) are denoted by d, a, s and t respectively, then it was observed that

$$6 \leq d \leq 12$$

$$8 \leq a \leq 18$$

$$5 \leq s \leq 10$$

$$2 \leq t \leq 15$$

5. On which day did Sam answer the maximum number of queries?
- a. Wednesday b. Friday c. Saturday
  - d. Either Friday or Saturday e. Monday

6. If there were no pending queries at the end of Saturday, what can be the minimum number of queries that were answered on the same day of their receipt during the week?

- a. 17 b. 21 c. 23 d. 24 e. 19

7. Which of the following statement is true?

a. All Pending queries can be answered at the end of Wednesday.

b. All Pending queries can be answered at the end of Thursday.

c. All Pending queries can be answered at the end of Friday.

d. All pending queries can be answered at the end of Monday

e. None of the above

8. If at the end of Saturday there were 20 queries pending in all, how many queries were answered during the week?

- a. 77 b. 73 c. 170 d. 180 e. None of these

9. At the most how many of these sections could have been handled by exactly one respondent, if all queries had to be answered by Saturday?

- a. 1 b. 2 c. 3 d. 4 e. Cannot be determined

**Directions for questions 10 to 13:** Answer the questions on the basis of the information given below.

The following tables give information about the distances from the houses (in kms) of six friends A, B, C, D, E and F to their offices and the distances between the houses of each other. Table 1 gives information about the distances of their houses from their offices. Table 2 gives information about the distance between the houses of the friends and Table 3 gives information about the distance between the offices of the friends. The expenditure

incurred when any of the friends goes from his office to any other office and vice-versa is Rs. 2 per km. The expenditure incurred when any of the friends goes from his house to any other house and vice-versa is Rs. 1 per km. The expenditure incurred when any one of the friends goes from any office to any house and vice-versa is Rs. 3 per km.  $A_o$  and  $A_h$  represent office and house of A respectively and this notation holds true for all the friends.

**Table 1**

House	Offices					
	$A_o$	$B_o$	$C_o$	$D_o$	$E_o$	$F_o$
$A_h$	12	15	11	16	10	14
$B_h$	15	13	12	10	8	11
$C_h$	17	12	18	18	16	10
$D_h$	16	10	13	12	9	14
$E_h$	12	10	19	11	17	18
$F_h$	9	10	12	14	18	19

**Table 2**

House	House					
	$A_h$	$B_h$	$C_h$	$D_h$	$E_h$	$F_h$
$A_o$		18	14	13	16	19
$B_o$	18		16	15	17	14
$C_o$	14	16		18	14	15
$D_o$	13	15	18		12	16
$E_o$	16	17	14	12		13
$F_o$	19	14	15	16	13	

**Table 3**

Offices	$A_o$	$B_o$	$C_o$	$D_o$	$E_o$	$F_o$
$A_o$		18	14	13	16	19
$B_o$	18		16	15	17	14
$C_o$	14	16		18	14	15
$D_o$	13	15	18		12	16
$E_o$	16	17	14	12		13
$F_o$	19	14	15	16	13	

10. A on his way to his office picks up three of his friends. The last person he picks up stays closest to his house. He then drops them at their respective offices and then goes to his office. Find the minimum distance covered by A.

- a. 91 kms b. 88 kms c. 90 kms d. 92 kms e. 85 kms

11. For how many friends the distances of their houses from their respective offices is not less than the distance from the houses of any other friend?

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

12. B drops his wife in D's house, picks up D, drops him at his office and reaches his own office. What is the total cost incurred?

- a. Rs. 81 b. Rs. 84 c. Rs. 97 d. Rs. 79 e. Rs. 90

13. D goes to all the houses to invite his friends to his daughter's wedding on the same day and returns home. He spent the minimum amount of money in the process, how much did he spend?

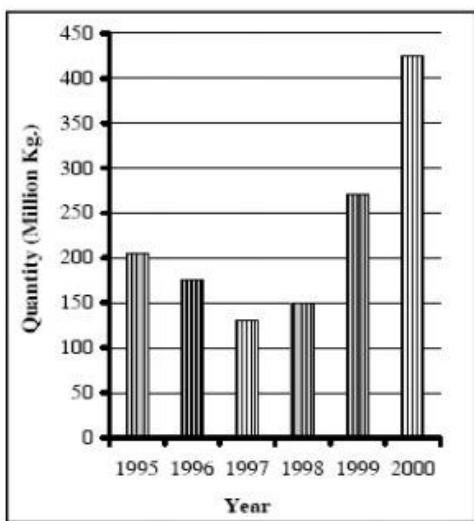
- a. Rs. 164 b. Rs. 82 c. Rs. 79 d. Rs. 81 e. None of these

**Directions for questions 14 to 17:** Answer the questions based on the following charts.

The table represents the value of India's Jute exports (in rupees crore) from 1995 to 2000 and the bar chart represents the quantity of India's Jute exports (in million kg) from 1995 to 2000.

#### India's Jute exports

Year	Value (Rs. In crore)
1995	400
1996	310
1997	150
1998	200
1999	590
2000	750



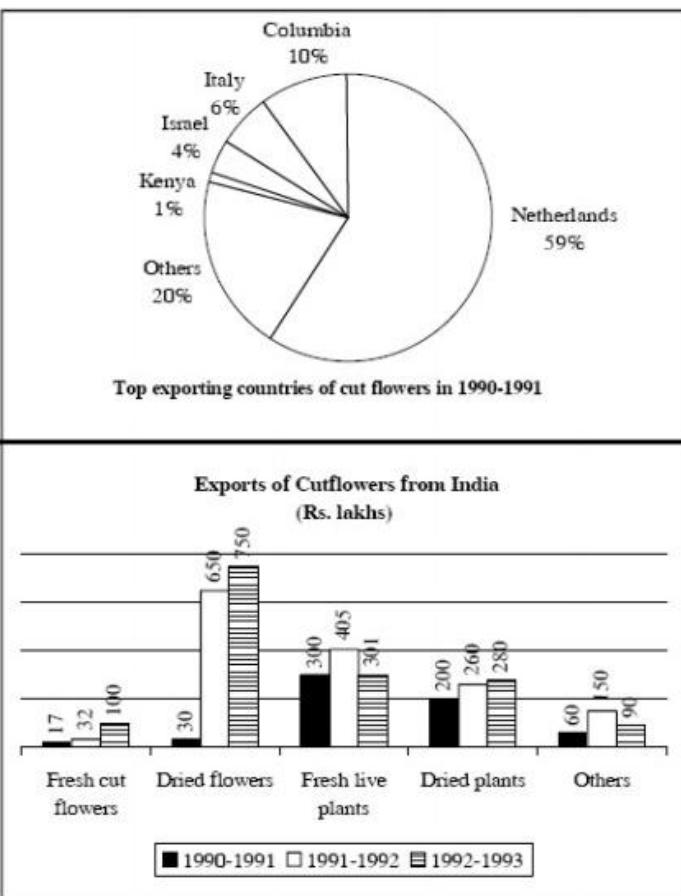
14. The value per kilogram of jute exported was the lowest in  
a. 1995 b. 1996 c. 1997 d. 1999 e. 2000
15. In which year was the percentage increase in the value of jute exports maximum?  
a. 1996 b. 1998 c. 1999 d. 2000 e. 1995
16. The average price per kilogram of jute exported during the period 1995 to 2000 was  
a. Rs. 1.80 b. Rs. 8.90 c. Rs. 12.80 d. Rs. 18.5 e. Rs. 17.75

a. Rs. 1.80 b. Rs. 8.90 c. Rs. 12.80 d. Rs. 18.5 e. Rs. 17.75

17. For how many years did the per kilogram price of jute exported decreased over the previous year?

a. Two times b. Three times c. Four times d. One time e. Five times

**Directions for questions 18 to 20:** Answer the questions studying the graph given below.



18. If India's fresh cut flower export in 1992-93 is 0.125% of the world's fresh cut flower exports, the value of the world export of fresh cut flowers in the same year is

- a. Rs. 1,216 crore b. Rs. 12,160 crore c. Rs. 121.6 crore

d. Rs. 121.6 crore e. None of these

19. What is the world's export of cut flowers in 1990-91, if India's exports constitute 20% of 'others' category?

- a. Rs. 160 crore b. Rs. 152 crore c. Rs. 4.25 crore

- d. Rs. 1175 crore e. Data insufficient

20. If fresh cut flowers constituted 54% of world floriculture trade in 1990-91, then the share of Netherlands in the global floricultural trade in 1990-91 was

- a. 31.8% b. 32.4% c. 34%

- d. 33.33% e. Data insufficient

**Directions for questions 21 to 25:** Each question is followed by two statements, I and II. Answer each question using the following instructions:

Mark (a) if the question can be answered by using the statement I alone but not by using the statement II alone.

Mark (b) if the question can be answered by using the statement II alone but not by using the statement I alone.

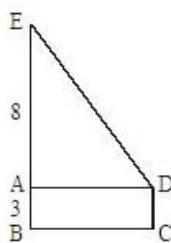
Mark (c) if the question can be answered by using either of the statements alone.

Mark (d) if the question can be answered by using both the statements together but not by either of the statements alone.

Mark (e) if the question cannot be answered on the basis of the two statements.

21. What is the perimeter of BCDEAB in the figure below?

Here EAB is a straight line.



I. The perimeter of rectangle ABCD is 18.

II. The area of rectangle ABCD is 18.

22. If a, b and c are integers, is  $3(a + b) + c$  divisible by 3?

I.  $(a + b)$  is divisible by 3.

II. c is divisible by 3.

23. Zinc, copper, aluminium and tin are melted together in the ratio  $8 : 6 : 3 : 1$  to form a mass. Zinc costs Rs. 30 per kilogram.

What is the cost of copper per kilogram?

I. The cost of alloy is Rs. 150 per kilogram.

II. Cost of aluminium and copper per kilogram is same.

24. Harish and Ravi are fierce rivals in the egg-eating competition. Who finished eating 24 eggs first, if both started simultaneously?

I. Ravi eats 2 eggs, then stops for breath for 12 s; again eats 2 eggs, and so on.

II. Harish finishes eating 24 eggs in 7.5 min.

25. The probability of selection of white ball is  $\frac{7}{11}$ . Find the number of permutations possible among all the balls if all the balls in the box from which they were drawn had the balls of same colour as identical.

I. Balls were of a maximum of 2 colours.

II. Balls were a maximum of 3 colours with 3 red balls.

#### Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
25					

## LRDI Practice Test - 7

**Directions for questions 1 to 4:** Answer the questions based on the following information.

The following table gives the sales details for textbooks and reference books at primary, secondary, higher secondary and graduate levels.

Year	Primary	Secondary	Higher secondary	Graduate level
1975	42137	8820	65303	25343
1976	53568	10285	71602	27930
1977	58770	16437	73667	28687
1978	56872	15475	71668	30057
1979	66213	17500	78697	33682
1980	68718	20177	82175	36697

1. What is the growth rate of sales of books at primary school level from 1975 to 1980?

- a. 29%
- b. 51%
- c. 63%
- d. 163%
- e. None of these

2. Which of the following categories shows the lowest growth rate from 1975 to 1980?

- a. Primary
- b. Secondary
- c. Higher secondary
- d. Graduate level
- e. Cannot be determined

3. Which category had the highest growth rate in the period?

- a. Primary
- b. Secondary
- c. Higher secondary
- d. Graduate level
- e. Cannot be determined

4. Which of the following categories had either a consistent growth or a consistent decline in the period shown?

- a. Primary
- b. Secondary
- c. Higher secondary
- d. Graduate level
- e. Cannot be determined

**Directions for questions 5 to 8:** Answer the questions on the basis of the information given below.

Four hawkers, Jayram, Rajaram, Sitaram and Peariram sell four different items, viz. Plastic Toys, Newspapers, Fruits and *Chatpata* one each (but not necessarily in that order) in the local trains on the Andheri - VT route. On one particular day, they were in four different railway compartments and they sold items worth Rs. 1200 in total. Following additional information is available regarding their activities of that day.

I. Rajaram does not sell either Fruits or Plastic Toys and he earned more than Rs. 300 in revenue on that day.

II. Peariram earned the minimum revenue among the four hawkers on that day by selling *Chatpata*.

III. Jayram earned Rs. 50 more than the average revenue earned by Rajaram and Peariram on that day.

IV. Sitaram sold items worth Rs. 250 on that day.

V. All of them earned an integral multiple of a rupee as the revenue on that day.

5. If the total revenue earned by Sitaram and Peariram is equal to that of Rajaram, find the worth of Newspapers that has been sold on that day by one of these hawkers.

- a. Rs. 175
- b. Rs. 425
- c. Rs. 350
- d. Rs. 325
- e. Rs. 400

6. If only oranges at the rate of Rs. 2.50 per piece has been sold by the Fruit-seller, find the number of oranges sold on that day by one of these hawkers.

- a. 100 b. 140 c. 120 d. 110 e. Either (a) or (b)

7. If Jayaram, Rajaram, Sitaram and Peariram have to pay 10%, 20%, 25% and 15% of their revenue earning respectively to the local hooligans everyday, what is the maximum possible total amount of money they can take home on that day?

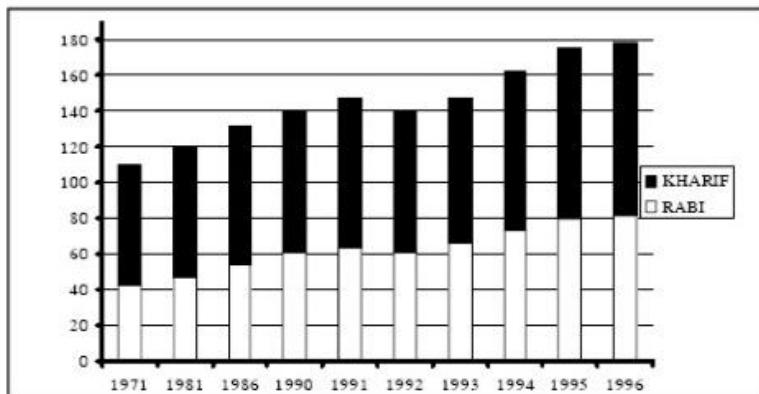
- a. Rs. 1002.95 b. Rs. 997.45 c. Rs. 986.45 d. Rs. 994.95 e. Rs. 990.45

8. If cost of one 'chatpata' is Rs. 7 and integral number of chapatas were sold on that day, then which of the following cannot be the revenue earned by Rajaram on that day?

- a. Rs.453 b. Rs.516 c. Rs.494 d. Rs.480 e. Rs.515

**Directions for questions 9 to 11:** Answer the questions based on the following data.

Indian economy is dependent upon agriculture and hence on the vagaries of monsoon because most of the agricultural land is not covered by the irrigation system. The foodgrain production in India is divided into kharif and rabi crops. The harvesting of kharif crop is done in October while that of rabi crop is done in April. The graph below shows the break-up of all-India production of food grains from 1971 to 1996 in million tonnes. The productivity of agricultural land is measured by calculating the yield which is defined as the ratio of production to the area under cultivation. It is calculated separately for kharif and rabi crops.



9. The average annual increase in total food grain production (in million tonnes) from 1990 to 1996 is

- a. 7.8 b. 6.5 c. 5.7 d. 9.1 e. None of these

10. If in 1997, the production of kharif crop increases by 10% and that of rabi crop by 16% over the previous year, then what is the percentage increase in the total production of food grains over the previous year?

- a. 12.70% b. 13.75% c. 13% d. 10.75% e. None of these

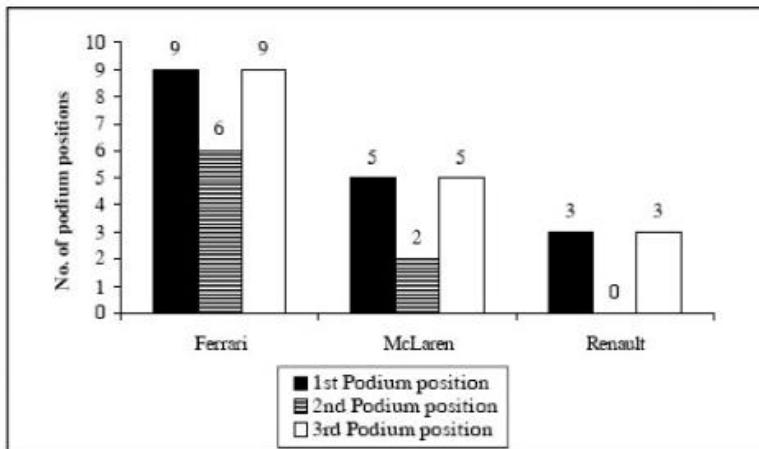
11. If India was 83% self-sufficient in food grain production in 1971, what was the minimum volume of imports (in million tonnes) India should have made in order to meet the food demand?

- a. 132.5 b. 32.5 c. 22.5 d. 65.5 e. None of these

**Directions for questions 12 to 16:** Answer the questions on the basis of the information given below.

In "Need for Speed" Championship, top three finishing drivers of each race are given podium positions namely 1st, 2nd and 3rd. There are nine teams, each having three drivers, who participated in all the 18 races held in 2005 season. Drivers of three teams: Ferrari, Renault and McLaren got the podium positions in 66.66%, 22.22% and 66.66% of the races respectively in the 2005 season.

The following graph shows the podium positions given to the drivers of Ferrari, McLaren and Renault in the 2005 season.



Also,

- Every driver getting the 1st podium position gets 10 points for his team. The same for the drivers getting 2nd position and 3rd position are 9 points and 8 points respectively. Points are given only to drivers getting podium positions.
  - No two drivers can finish at the same position.
12. What is the minimum number of races in which both McLaren and Ferrari were on the podium in the same race?

a. 12 b. 8 c. 6 d. 3 e. 5

13. In how many races did Renault have more than one person on the podium?

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

14. If the number of races when all the three on the podium were from Ferrari is N, then

a.  $0 \leq N \leq 3$  b.  $3 \leq N \leq 6$  c.  $0 \leq N \leq 6$  d.  $2 \leq N \leq 6$  e. None of these

15. The difference in the points of the top two teams cannot be less than

a. 54 b. 100 c. 108 d. 105 e. None of these

16. What is the number of races when all the three teams (Ferrari, McLaren and Renault) were on the podium in the same race?

a. 0 b. 1 c. 2 d. 6 e. 5

**Direction for questions 17 to 20:** Answer the questions based on the following table.

The selling price has the following components:

Profit 10%	Other cost 70%	Quality cost 20%
------------	----------------	------------------

Quality cost is broken down as:

Failure cost 50%	Error cost 20%	Appraisal cost 30%
------------------	----------------	--------------------

Appraisal cost is broken down as:

Product testing 50% cost	Material testing 25% cost	Trials 25% cost
--------------------------	---------------------------	-----------------

17. What percentage of selling price is material testing cost?

a. 1.5% b. 6% c. 1.66% d. 2.7% e. None of these

18. What is value of appraisal cost if the selling price is Rs. 1 crore?

a. Rs. 6.66 million

b. Rs. 6 million

c. Rs. 0.60 million

d. Rs. 0.66 million

e. Rs. 0.06 million

19. If failure cost were to be Rs. 10 million, product testing cost would be

a. Rs. 3 million

b. Rs. 4.5 million

c. Rs. 5 million

d. Rs. 2.5 million

e. None of these

20. What is the percentage of error cost in the total cost structure?

a. 20% b. 4.44% c. 22.22% d. 4% e. None of these

**Directions for questions 21 to 25:** Each question is followed by two statements, I and II. Answer each question using the following instructions:

Mark (a) if the question can be answered by using the statement I alone but not by using the statement II alone.

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Mark (e) if the question cannot be answered on the basis of the two statements.

21. Water barrel A is filled with 50% of its capacity, and water barrel B is filled with 80% of its capacity. Which barrel is larger?

I. Pouring water from A into B until B is full would leave  $\frac{5}{6}$  of A empty.

II. Pouring water from B into A until A is full would leave B half full.

22. The distance from Madhavi's office to her house is 45 miles. On Monday Madhavi went to office for a while but returned home early. What was the total time spent in travelling?

I. She travelled at uniform rate of 40 mph, both in the onward as well as the return journey.

II. If she travelled 50 mph faster than she actually did, it would have taken her half the time.

23. What is the time taken by pipe B to fill up a tank?

I. Pipes A and C together fill up the tank in 8 hr.

II. Pipes B and C together fill up the tank in 6 hr.

24. Is  $x$  positive? ( $[x]$  refers to the greatest integer function.)

Mark (b) if the question can be answered by using the statement II alone but not by using the statement I alone.

Mark (c) if the question can be answered by using either of the statements alone.

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23. What is the time taken by pipe B to fill up a tank?

I. Pipes A and C together fill up the tank in 8 hr.

II. Pipes B and C together fill up the tank in 6 hr.

24. Is x positive? ( $[x]$  refers to the greatest integer function.)

I.  $|x| + x = 0$

II.  $[x] - |x| \leq 2|x|$

25. How much profit did a shop make by selling 28 pairs of socks if the shop gave a 20% discount on the original rate?

I. The original rate was Rs. 89 per pair.

II. The manufacturer charges the shop Rs. 12,860 for 60 pairs.

#### Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
25					

## LRDI Practice Test - 8

**Directions for questions 1 to 4:** Answer the questions on the basis of the information given below.

A Mock CAT was taken by ten students viz. A, B, C, ..., and J. The following table shows how the students were ranked from 1 to 10 on the basis of their marks, for each of the three sections of the test paper - Quant, English Usage and Data Interpretation. However, the rank based on total marks is left unreported. (Rank 1 means more marks)

Rank	Quant	English Usage	Data Interpretation	Total
1	J	C	A	?
2	A	J	B	?
3	C	B	C	?
4	B	A	J	?
5	H	H	H	?
6	G	E	D	?
7	D	D	G	?
8	F	I	I	?
9	I	G	E	?
10	E	F	F	?

Total marks for any student in the Mock CAT refers to the sum total of marks obtained in Quant, English Usage and Data Interpretation by him. Each of the sections had same weightage in terms of marks.

The difference in marks obtained by any two consecutively ranked students, in any of the sections, is atleast 2 marks and atmost 5 marks.

1. For how many students is it possible to determine their exact rank on the basis of total marks?

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

2. If the difference in marks obtained by F and C in Quant is 10 marks, what is the difference in marks obtained by G and H in Quant?

- a. 2 b. 3 c. 4 d. 5 e. Cannot be determined

3. If the marks obtained by B in Quant, English Usage and Data Interpretation are 15, 25 and 20 respectively, what is the difference between the minimum and maximum total marks that A can obtain?

- a. 8 b. 9 c. 10 d. 11 e. 12

4. Which student is ranked 7th based on the total marks?

- a. H b. G c. D

- d. Either H or G e. Cannot be determined

**Directions for questions 5 to 9:** Answer the questions based on the given data.

The following table shows the domestic sales of scooters by five manufacturers from 1995 to 2000. All figures are in thousands.

Manufacturer	1995	1996	1997	1998	1999	2000
A	440	480	470	500	520	510
B	400	410	415	415	420	430
C	380	390	390	400	420	495
D	360	380	400	415	440	500
E	480	440	440	420	425	435

5. Considering the period given, the domestic sales of which manufacturer is the highest?

a. A b. B c. C d. D e. E

6. In the year 1996, what was manufacturer B's percentage share in the total domestic sales of scooters by the five manufacturers?

a. 10.5% b. 25.5% c. 15.5% d. 19.5% e. 20%

7. During 2000, the sales of which manufacturer has shown the maximum percentage increase over the previous year?

a. A b. B c. C d. D e. E

8. What is the ratio of the minimum sales to the maximum sales of scooters during 1998?

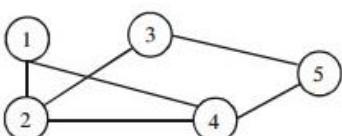
a. 0.9 b. 0.3 c. 0.6 d. 0.5 e. 0.8

9. Which of the following (manufacturer, year) combinations has the highest domestic sales of scooters?

a. D, 2000 b. A, 1998 c. A, 2000 d. A, 1999 e. C, 1995

**Directions for questions 10 to 12:** Answer the questions on the basis of the information given below.

Roads are laid inter-connecting 5 cities as shown in the diagram below. You are required to design a route such that you can start from any city of your choice and walk along each of the roads exactly once.



10. For route(s) satisfying the given condition, which statement is TRUE?

a. There is no such route

b. Routes either start at 2 or ends at 2

c. 1 can only be the end city on the route

d. Route necessarily starts at 5

e. None of these

11. How many different route(s) satisfying the given condition is/are possible?

a. 4 b. 6 c. 8 d. 12 e. 10

12. If a new road is constructed from 1 to 3 and the condition is kept the same, then which of the following can be TRUE?

a. Route starts from 1 and ends at 1 b. Route starts from 2 but ends at 4

c. Route ends at 5 d. Route starts from 1 and ends at 5

e. No such route is possible

**Directions for questions 13 to 16:** Answer the questions based on the given data.

The XYZ company conducted two training programmes for their line and staff employees to develop their managerial abilities. The training programmes were on decision-making and financial management. The following table gives the number of line and staff employees who attended these workshops, classified as per the period of employment.

Period of employment	Programme attended						Total number of employees including non-participants	
	Decision		Financial		Both			
	Line	Staff	Line	Staff	Line	Staff		
Less than 3 years	40	30	30	20	10	15	100	120
3 to 5 years	60	20	80	60	30	15	140	90
More than 5 years	50	40	40	50	30	20	200	160

13. What is the number of line employees with 3 to 5 years of employment who have not attended the programme on financial management?

- a. 30 b. 20 c. 60 d. 50 e. None of these

14. What is the number of employees with less than 3 years of employment who attended only one of the programmes?

- a. 120 b. 70 c. 25 d. 95 e. 45

15. What percentage of the employees, with more than 5 years of employment, did not attend either of the workshops? (Select the value nearest to the correct value.)

- a. 64% b. 86% c. 50% d. 14% e. 35%

16. How many of the employees who attended at least one programme have more than 5 years of employment?

- a. 180 b. 110 c. 230 d. 36 e. 130

**Directions for questions 17 to 20:** Answer the questions based on the following data.

A survey conducted in a medium-sized service company on computer literacy revealed the following results. Answer the questions based on the following data assuming that an individual is computer literate in only one of the given four areas.

Computer literacy	Top management	Middle management	Junior management	Staff	Others
Word processing	18	50	27	42	43
Spreadsheet	23	53	33	14	27
Presentation	31	35	18	23	13
MIS	18	12	22	11	2

17. The group of personnel showing highest percentage in the use of spreadsheet is

- a. top management b. others c. staff  
d. middle management e. junior management

18. The number of persons who are either in the junior management or literate in presentation are

- a. 220 b. 270 c. 238 d. 251 e. None of these

19. The top management has the second highest percentage of proficiency in

- a. word processing b. spreadsheet c. presentation  
d. MIS e. cannot be determined

20. The number of staff having no knowledge of MIS or spreadsheet is

- a. 65 b. 20 c. 0 d. 15 e. None of these

**Directions for questions 21 to 25:** Each question is followed by two statements, A and B. Answer each question using the following instructions:

Choose (a) if the question can be answered by statement A alone, but cannot be answered by using the other statement alone.

Choose (b) if the question can be answered by statement B alone, but cannot be answered by using the other statement alone.

Choose (c) if the question can be answered by using either statement alone.

Choose (d) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.

Choose (e) if the question cannot be answered even by using both the statement together.

21. Arun's TV receives 10 channels which are of the following types — 2 movie channels, 3 sports channels, 2 news channels and 3 entertainment channels. Arun necessarily watches only one type of channel at each part of the day — morning, afternoon, evening and night. Which type of channel does Arun watch at night?

A: Arun does not watch any news channel during the day.

B: Arun watches a sports channel in the morning only and a movie channel in the afternoon only.

22. Four teams — India, Pakistan, Sri Lanka and Bangladesh, play each other once during the Asia cup. What is the maximum points that may be scored by any team winning the Asia Cup?

A: Pakistan, the winner of the Asia Cup, wins all its matches in Asia Cup except against Bangladesh.

B: A team who wins a match gets 3 points, and gets no point for losing a match. Both teams get a point each for a drawn match.

23. The principal spoke for 25 min and the vice principal spoke for 35 min. Did the chief guest speak for more than 45 min?

A: The chief guest spoke longer than the principal did.

B: The chief guest spoke for a shorter period than the vice principal.

24. Is Rashmi going for shopping?

A: If Ranjana is not going for shopping, then Rashmi is not going for shopping.

B: Ranjana is going for shopping.

25. Who weighs the most among A, B and C?

A: A weighs more than the average of the weights of all the three.

B: B weighs more than the average of the weights of A and C.

#### Scoring table

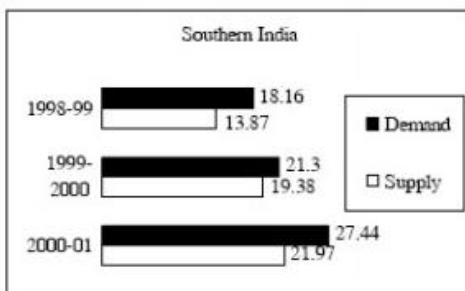
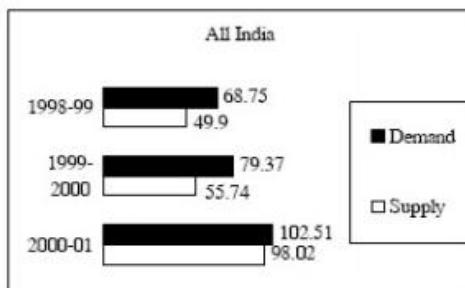
Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
25					

## LRDI Practice Test - 9

**Directions for questions 1 to 4:** Answer the questions based on the given data.

The following diagrams give the demand and supply of crude oil (in MMT) for All India and Southern India. The figures for 2000-01 are forecast while that for the other years are actuals.

(Given, All India is divided in four regions, i.e. Eastern India, Western India, Southern India and Northern India.)



1. Increase in demand for crude oil in All India in 1999-2000 over the previous year expressed in percentage is approximately

- a. 29.2% b. 14.28% c. 11.7% d. 39.7% e. 25%

2. If the All India actual demand for crude oil in 2000-01 shoots up by 15% over the forecast, then the demand-supply gap (in MMT) will be approximately

- a. 10.1 b. 17.6 c. 15.3 d. -11.2 e. 19.9

3. In which year will the supply of crude oil to Southern India be 30% of the corresponding All India figure?

a. 1998-99

b. 1999-2000

c. 2000-01

d. Both 1999-2000 and 2000-01

e. None of these

4. As per the forecast for 2001-02, the supply and demand in Southern India are expected to grow by 30% and 40% respectively over the values forecast for the year 2000-01. What will be the forecast deficit in supply in 2001-02?

- a. 4.9 MMT b. 10.6 MMT c. 16.1 MMT

- d. 7.2 MMT e. 3.1 MMT

**Directions for question 5 to 8:** Answer the questions on the basis of the information given below.

Five contestants, viz. Pooja, Payal, Priti, Priyanka and Poonam were vying for the title of Miss India in the year 2006. The top three contestants were to be honoured with the titles

of Miss India Universe, Miss India World and Miss India Earth in that order. The competition was being judged by 11 eminent personalities and the three rounds of the final phase were to be conducted as follows:

- A. In the first round, only the panel consisting of 11 Judges would vote.
- B. The second and the third round would also be judged by the CEO of Pantaloons in addition to the panel of judges.
- C. In case, any of the five participants received '0' votes in any round, then she will be out of competition and therefore allowed to vote in the subsequent round(s).
- D. The participant who received the maximum total votes in the three rounds put together, would be declared as winner. In case of a tie at the end of three rounds for any of the titles, the candidate who has scored more in the final round would be declared as the winner. In such a case, the next available title would be given to the other participant.

The following table provides partial information regarding the number of votes received by the candidates in the three rounds and their cities of origin.

	Pooja	Payal	Priti	Priyanka	Poonam
City of Origin	Bangalore	Delhi	Bangalore		
Round 1		4			
Round 2			1		
Round 3					

The following additional information was available:

- I. In round 1, two of the five contestants received the same number of votes which is the minimum among all the participants. Also, every contestant received at least 1 vote in the first round.
- II. Fifty percent of the judges who voted for Payal in round 1, voted for Pooja in round 2. The judge who voted for Poonam in round 1, voted for Payal in round 2. In round 2, all the other judges continued to vote for the same person as in Round 1.

III. Mr. Biyani, the CEO of Pantaloons, voted for Priyanka in round 2, which made her the joint second with another contestant in this round.

IV. The total votes received by the two girls from Bangalore in round 3 was 1 more than that received by the two girls from Delhi put together.

V. One of the contestants got '0' vote in round 2.

VI. If Priyanka received the same number of votes in round 3 as in round 1, while Pooja received 4 votes in round 3, how many votes did Payal receive in round 3?

a. 2 b. 4 c. 3

d. 1 e. Cannot be determined.

VII. Who was the person with the highest number of votes cumulatively at the end of round 2?

a. Priti b. Poonam c. Payal

d. Priyanka e. Pooja

VIII. If Priti received 3 votes in round 3, while Payal received 50% of the remaining votes, which of the following is definitely true?

a. Pooja received 3 votes in round 3.

b. Payal would receive the title of Miss India Earth.

c. Payal and Pooja received the same number of votes in round 3.

d. Priyanka received the minimum number of votes in round 3.

e. Priyanka would receive the title of Miss India World.

IX. Which contestant(s) received the minimum number of votes in round 1?

- a. Poonam
- b. Poonam and Priyanka
- c. Priti
- d. Priti and Poonam
- e. Priyanka

**Directions for questions 9 to 11:** Answer the questions on the basis of the information given below.

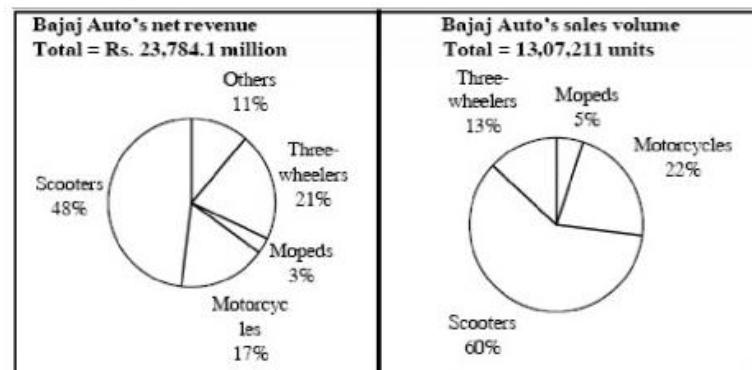
Five friends namely Bunty, Babli, Bonny, Bimal and Beckham are movie-buffs. In a given week they watch four movies - No Entry, Page 3, Salaam Namaste, Iqbal such that each of them watches at least one movie during this week. Each of the four given movies are being screened at four different movie halls — Satyam, Chanakya, Priya and Plaza (not necessarily in that order). One movie hall screens one movie only in that week. These five friends watch movies at these four movie halls only. The following additional information is available

1. One of them watches all four movies in this week.
2. Bunty and Babli always watch movies together and they watch No Entry and Page 3 only in this week.
3. Iqbal was not liked by most of these movie-buffs and was watched by only Bimal in this week.
4. There is only one movie that Beckham has not seen and it is being screened at Plaza.
5. Bunty does not watch a movie at either Priya or Plaza.
9. Which of the following movies has Beckham not watched in this week?

- a. Page 3 b. Salaam Namaste c. Iqbal
- d. No Entry e. Cannot be determined
- 10. 'No Entry' is being screened at which of the movie halls this week?
- a. Priya b. Satyam c. Chanakya d. Plaza e. Cannot be determined
- 11. 'Page 3' is being screened at which of the movie halls this week?
- a. Priya b. Satyam c. Chanakya d. Plaza e. Cannot be determined

**Directions for questions 12 to 16:** Answer the questions based on the following pie charts.

The pie charts represent Bajaj Auto's net revenue and Bajaj Auto's sales (volumewise).



12. Approximately, what revenue does Bajaj Auto earn on the sale of one scooter unit?
  - a. Rs. 14,500 b. Rs. 12,000 c. Rs. 15,000 d. Rs. 16,000 e. Rs. 13,000
13. If Bajaj Auto decides to increase the volume sales of motorcycles by 25% at the cost of volume sales of scooters, then what will be the percentage decrease in scooter volume

sales? (Total volume sales remains constant)

- a. 9.1% b. 10.2% c. 8.9% d. 9.5% e. 5%

14. If the "Others" section was not included in calculating the net revenues, what would have been the contribution of "Mopeds" in the net revenue?

- a. 3.6% b. 2.8% c. 3.0% d. 3.4% e. 2.5%

15. If profit to net revenue ratio is 20% for both scooters and motorcycles and 25% for both mopeds and three-wheelers, what would be the approximate profit of Bajaj Auto from these four product groups?

- a. Rs. 405 million b. Rs. 4,200 million c. Rs. 4,500 million
- d. Rs. 404 million e. Rs. 302 million

16. Which of the following has the highest net revenue per unit?

- a. Three-wheelers b. Motorcycles c. Scooters
- d. Mopeds e. Cannot be determined

**Directions for questions 17 to 20:** Answer the questions based on the given data.

In 1999-2000 the value of exports of manufactured articles exceeds over the value of exports of raw materials by 100%. In 2000-2001 the ratio of percentages of exports of raw materials to that of exports of manufactured articles is 3 : 4. Exports of food in 2000-2001 exceeds the 1999-2000 figures by Rs. 1,006 crore.

Item	1999-2000	2000-2001
Food		23%
Manufactured articles		
Raw material		
Total value of exports (Rs. in crore)	22,400	25,800

17. In 1999-2000 what percentage of the total value of exports do items related to food, account for?

- a. 23% b. 29.2% c. 32% d. 22% e. 25%

18. During 1999-2000, how much more (valuewise, in Rs.) raw material was exported than food items?

- a. Rs. 2,580 crore b. Rs. 896 crore c. Rs. 1,986 crore d. Rs. 1,852 crore e. Rs. 1,000 crore

19. The value of exports of raw materials in 1999-2000 was less than that in 2000-2001 by

- a. 39% b. 46.18% c. 7% d. 31.6% e. 37%

20. The change in value of exports of manufactured articles from 1999-2000 to 2000-01 is

- a. Rs. 296 crore b. Rs. 629 crore c. Rs. 2,064 crore
- d. Rs. 1,792 crore e. Rs. 1,500 crore

**Directions for questions 21 to 25:** Each question is followed by two statements A and B. Answer each question using the following instructions.

Choose (a) if the question can be answered by statement A alone, but cannot be answered by using the other statement alone.

Choose (b) if the question can be answered by statement B alone, but cannot be answered by using the other statement alone.

Choose (c) if the question can be answered by using either statement alone.

Choose (d) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.

Choose (e) if the question cannot be answered even by using both the statement together.

21. A, B, C, D and E are sitting around a table on five chairs which are numbered 1, 2, 3, 4 and 5. The highest aged person sits on the highest numbered chair and the least aged person sits on the lowest numbered chair. If their ages are in AP, find the age of C.

A: D is the oldest with the age 52 and he is sitting on chair 5.

B: The common difference in the AP is 2 and C is sitting on chair 3.

22. A, B, C, D and E visit five different cities — P, Q, R, S and T, though not necessarily in the same order. A does not go to P; B does not visit Q, and so on. Which city is visited by D?

A: A and C visit the cities Q and S respectively, while B does not visit city T.

B: D will visit either R or T.

23. Sapna runs a friendship club on the 10th floor of a multi-storeyed building. The lift in this building has a different stop sequence on different days of the week. On which days of the week should Sapna keep her club open, if the club members visit the club only on those days when the lift stops at the 10th floor?

A: The lift stops on only odd-numbered floors on Monday, Tuesday and Wednesday.

B: The lift stops on floors divisible by 3 or 5 on Thursday and Friday.

24. The volume of water in a swimming pool at the Sports Complex depends on the expected number of people using the pool in different months of the year. What is the volume of water in the swimming pool in the month of December?

A: The number of people expected to use the pool in December will be the lowest and will be 25.

B: The maximum number of people who can use the pool is 95 and the volume of water in the pool is reduced by 20 cc for a reduction of each user in the pool.

25. Is Rahul older than Gaurav?

A: Kamal is 4 years younger than Rahul and 2 years younger than Gaurav.

B: The average of Rahul's age and Gaurav's age is 17.

#### Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
25					

## LRDI Practice Test - 10

**Directions for questions 1 to 3:** The following questions are to be answered after analysing the table given. The table shows the growth of regular monthly investment at 7% return compounded annually.

Number of years	Monthly investment			
	Rs. 50	Rs. 100	Rs. 250	Rs. 500
X = Amount after X years				
2	1292	2583	6458	12915
5	3601	7201	18003	36005
10	8705	17409	43524	87047
20	26198	52397	130991	261983

1. How much interest is earned on an investment for a 5-year period with monthly investment of Rs. 100?

- a. Rs. 1,201
- b. Rs. 6,001
- c. Rs. 7,201
- d. Rs. 608
- e. Rs. 806

2. Find the approximate ratio of interest earned on 10-year period to the interest earned on a 5-year period with monthly investment of Rs. 100?

a. 2 : 9

b. 4 : 1

c. 4 : 9

d. 9 : 2

e. 9 : 5

3. How much less would be earned on a Rs. 500 monthly investment for 10 years than a Rs. 250 monthly investment for 20 years?

a. Rs. 45,844

b. Rs. 43,944

c. Rs. 35,004

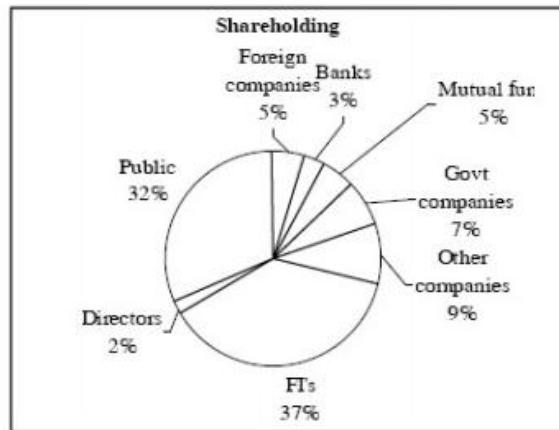
d. Rs. 37,832

e. Rs. 31,873

**Directions for questions 4 to 6:** Study the data given below and answer the questions.

The following graphs give the sales, profit and shareholding pattern of company XYZ over the period 1990-91 to 1994-95. The shareholding pattern has remained static throughout this time period.

Year	Sales (Rs. In crore)	Profit (Rs. In crore)
1990-91	6700	590
1991-92	6900	630
1992-93	7300	710
1993-94	7500	530
1994-95	8000	800



4. In which year is the percentage growth rate of sales, the least?

- a. 1991-92 b. 1993-94 c. 1992-93 d. 1994-95 e. Cannot be determined

5. What is the difference of dividends received by banks in 1991-92 and that received by mutual funds in 1992-93, if the total profits of a year are disbursed as dividends to shareholders in the ratio of the shareholding?

- a. Rs. 16 crore b. Rs. 16.6 crore c. Rs. 18.9 crore

- d. Rs. 35.5 crore e. Rs. 31.2 crore

6. In which year is the ratio of profit to sales the maximum?

a. 1991-92 b. 1993-94 c. 1992-93

d. 1994-95 e. Data insufficient

**Directions for questions 7 to 10:** Answer the questions on the basis of the information given below.

Each of the 5 vendors – A, B, C, D and E supply one or more of the 5 crucial components – P, Q, R, S and T to XYZ Manufacturing Ltd. Each vendor supplies atleast one component and no two vendors supply the same number of components. Similarly each component is supplied by atleast one of these vendors and each component is supplied by different number of vendors.

A virus infected the store manager's computer and only the following partial data could be recovered about which vendor supplies which components.

Vendor	Number of components supplied by the vendor	Components supplied by the vendor
A		P, R
B		P, S
C	1	
D		Q
E		Q, S, T

Component	Number of Vendors supplying the component	Vendors supplying the component
P		
Q	4	
R		
S		A, D
T	2	

7. Which vendor supplies all the five components?

- a. A b. B c. D d. E e. Cannot be determined

8. Which component is supplied by all the five vendors?

- a. P b. R c. S d. Q e. Cannot be determined

9. The entire list of vendors who supply component P is

- a. A and B b. A, B, C and D c. A, B and C
- d. A, B and E e. A, B and D

10. The list of all components supplied by D is

- a. Q and S b. Q, S and T c. Q, S, T and R
- d. Q, S and R e. S and R

**Directions for questions 11 and 12:** In the following questions, a statement is given and a conclusion is drawn from that statement combined with some other information. The statement along with that additional information is sufficient to infer the stated conclusion correctly. You have to find that particular additional information from the given options:

11. Statement: Bharti is elder to Lalita

Conclusion: Roshni is younger to Ira.

- a. Bharti is elder to Ira and Lalita is elder to Roshni
- b. Bharti is younger to Ira and Lalita is elder to Roshni
- c. Bharti is elder to Ira and Lalita is younger to Roshni
- d. Bharti is younger to Ira and Lalita is younger to Roshni
- e. Bharti is elder to Ira

12. Statement: For a real number  $x$ ,  $x^2 > x$

Conclusion:  $x < 0$

- a.  $x$  is not a negative number
- b.  $x$  is a real number less than or equal to 1
- c.  $x$  is a positive number
- d.  $x$  is a real number greater than or equal to 1
- e.  $x$  is a rational number

**Directions for questions 13 to 16:** The table given below shows the achievement of agriculture development programmes from 1970 to 1976.

Programmes	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Area under irrigation (Cumulative in hectares in millions)						
Major	22.05	22.70	23.20	24.00	24.60	25.32
Minor	28.60	32.77	32.77	34.20	34.00	35.14
Area with high yielding variety (Hectares in millions)						
1. Rice	2.90	3.6	4.6	4.7	5.4	5.2
2. Wheat	15.90	16.10	16.8	17.8	19.4	19.1
3. Bajra	16.90	18.20	19.7	18.7	21.7	22.8
4. Paddy	1.4	1.6	1.6	1.7	1.9	2
5. Maize	3.1	3.5	3.9	4.4	5.3	5.1
Consumption of chemical fertilizers (Tonnes in millions)						
1. Urea	1.11	1.21	1.32	1.44	1.73	1.89
2. Potash	3.42	3.68	4.07	4.22	5.20	5.49
3. Nitrogen	0.59	0.62	0.67	0.73	0.78	0.84
Gross cropped area (Hectares in millions)	174.8	173.1	177.0	172.6	180.4	187.8

13. Assume that all potash fertilizers were used only for high-yielding varieties of rice and bajra and nitrogen for those of maize and paddy. In which year is the difference between per hectare consumption of potash and nitrogen fertilizer maximum?

- a. 1973-74
- b. 1974-75
- c. 1975-76
- d. 1970-71
- e. 1972-73

14. Consumption of chemical fertilizer per hectare of gross cropped area is least for the year

- a. 1974-75
- b. 1975-76
- c. 1970-71
- d. 1971-72
- e. 1972-73

15. In 1973-74, how much more area was brought under irrigation?

- a. 3.34 million hectares
- b. 2.33 million hectares
- c. 1.32 million hectares
- d. 1.53 million hectares
- e. 2.23 million hectares

16. If we assume that a part of the minor irrigated area can come under major area, in which year has it definitely happened? (Assume once an area comes under irrigation, it always remains in irrigation.)

- a. 1972-73
- b. 1973-74
- c. 1974-75
- d. 1975-76
- e. 1970-71

**Directions for questions 17 to 20:** Answer the questions on the basis of the information given below.

Six teams from 6 different countries participated in World Cup hockey tournament, held recently at Australia. Every team plays one match with every other team. According to the rules, a win gives 3 points, draw gives 1 point and no points are given for a lost match. Teams will be ranked on the basis of their total points (higher the points, better the rank). In case of equal points of any two given teams at the end of the tournament, the result of the match between these two teams will decide their rank (i.e. winner of that particular match will have a better rank). India and Germany both scored 7 points each with the match between them not being a draw. Australia topped the tournament with 15 points at the end. South Korea defeated Germany in the match between the two. Holland lost all their matches, and Pakistan had 4 points.

17. Which of the 6 teams was ranked 3rd from the top, at the end of the tournament?

- a. India
- b. Germany
- c. South Korea
- d. Pakistan
- e. Cannot be determined

18. What were the total points scored by South Korea at the end of the tournament?

- a. 10
- b. 13
- c. 8
- d. 11
- e. Cannot be determined

19. In total, how many points were scored by all the teams at the end of the tournament?

a. 45 b. 47 c. 41 d. 38 e. 43

20. In total how many matches in the tournament ended in a draw?

a. 0 b. 1 c. 2

d. 3 e. Cannot be determined

**Directions for questions 21 to 25:** Each question is followed by two statements A and B.

Answer each question using the following instructions.

Choose (a) if the question can be answered by statement A alone, but cannot be answered by using the other statement alone.

Choose (b) if the question can be answered by statement B alone, but cannot be answered by using the other statement alone.

Choose (c) if the question can be answered by using either statement alone.

Choose (d) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.

Choose (e) if the question cannot be answered even by using both the statement together.

21. There are 5 members in Sharma family and all of them use the only toilet in the house in the morning as per a defined sequence. In what sequence does Bunty get the chance to use the toilet in the morning?

A: There are as many people using the toilet after Bunty as there are before Bunty uses it.

B: Bunty gets to use the toilet only after all other members have used it.

22. Both Mr. and Mrs. Verma go for a morning walk to the nearby park every morning. However, both do not go together on all days of the week. Each of them goes for a

morning walk for 4 days per week. Mr. Sharma alone goes for a walk on Monday, Wednesday and Friday. Mrs. Sharma goes for the morning walk on Tuesday, Thursday and Saturday. Both of them together go for a morning walk on Sunday. How many hours does Mr. Sharma walk during his morning walk per week?

A: Mr. Sharma walks for 0.75 hours per day when he goes for morning walk alone.

B: Mrs. Sharma walks for 0.50 hours per day when she goes for morning walk alone and 1.25 hours when she goes for a walk together with Mr. Sharma.

23. A, B, C and D are standing behind one another in the order. C always speaks the truth and D always speaks a lie. They know that 2 of them are wearing a black hat and 2 of them are wearing a white hat. Which hat is A wearing?

A: D says, "Among the people in front of me, the number of people wearing white hats is more than the number of people wearing black hats."

B: C says, "I am wearing a white hat."

24. What is the distance between A and B?

A: It is 15 miles from A to C.

B: It is 25 miles from C to B.

25. What is the length of the segment XY, if 'X' and 'Y' are two points in between 'P' and 'Q'?

A:  $PQ = 20 \text{ cm}$

B:  $PY = XQ = 5 \text{ cm}$

### Scoring table

morning walk for 4 days per week. Mr. Sharma alone goes for a walk on Monday, Wednesday and Friday. Mrs. Sharma goes for the morning walk on Tuesday, Thursday and Saturday. Both of them together go for a morning walk on Sunday. How many hours does Mr. Sharma walk during his morning walk per week?

A: Mr. Sharma walks for 0.75 hours per day when he goes for morning walk alone.

B: Mrs. Sharma walks for 0.50 hours per day when she goes for morning walk alone and 1.25 hours when she goes for a walk together with Mr. Sharma.

23. A, B, C and D are standing behind one another in the order. C always speaks the truth and D always speaks a lie. They know that 2 of them are wearing a black hat and 2 of them are wearing a white hat. Which hat is A wearing?

A: D says, "Among the people in front of me, the number of people wearing white hats is more than the number of people wearing black hats."

B: C says, "I am wearing a white hat."

24. What is the distance between A and B?

A: It is 15 miles from A to C.

B: It is 25 miles from C to B.

25. What is the length of the segment XY, if 'X' and 'Y' are two points in between 'P' and 'Q'?

A: PQ = 20 cm

B: PY = XQ = 5 cm

#### Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
25					

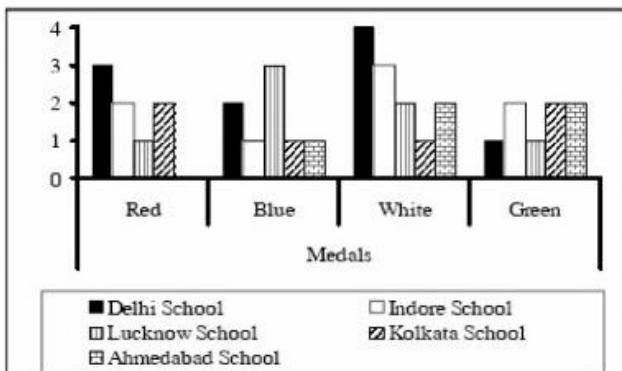
## LRDI Practice Test - 11

**Directions for questions 1 to 5:** Answer the questions on the basis of the information given below:

Five national schools viz. Delhi School, Indore School, Lucknow School, Kolkata School and Ahmedabad School sent 11 representative members for India Quality Foundation (IQF) conclave. Each member belongs to one of these schools. In the felicitation ceremony, medals were given to the members for their act towards promoting honesty (red medal), literacy (blue medal), cleanliness (white medal) and discipline (green medal). The information about the medals won by these 11 members is given in the table below.

Members	Medals			
	Red	Blue	White	Green
Puneet	1	1	1	1
Qadir	2	0	0	1
Rishi	2	0	0	0
Satyam	0	1	3	0
Tarun	0	1	1	2
Umesh	0	1	2	2
Vipul	0	1	0	1
Wasim	0	0	2	1
Xavier	0	2	1	0
Yousuf	2	0	1	0
Zaheer	1	1	1	0

The standings of the schools in the medal tally are also given.



1. Which of the following statements may be correct, but not necessarily correct?
  - a. Vipul and Wasim represent the same school.
  - b. Umesh and Vipul represent different schools.
  - c. Satyam and Rishi represent the same school.
  - d. Yousuf and Vipul represent different schools.
  - e. Tarun, Puneet and Qadir all represent different schools.
  
2. Which of the following is definitely the school that Vipul represents?
  - a. Delhi School b. Indore School c. Lucknow School
  - d. Ahmedabad School e. Cannot be determined
  
3. How many representative members did Delhi School send?
  - a. 2 b. 3 c. 4 d. 5 e. More than 5
  
4. Which of the following is a member representing Lucknow School?
  - a. Zaheer b. Xavier c. Tarun d. Puneet e. Qadir

a. Puneet b. Vipul c. Wasim d. Yousuf e. Zaheer

5. Which of the following additional information would be consistent as well as sufficient to find the schools represented by all the members?

a. Satyam and Umesh made Indore school proud by representing it at the India Quality Foundation conclave and winning maximum medals among them.

b. Wasim showed two award-winning acts of promoting cleanliness, which made his school and his fellow schoolmate Vipul proud of him.

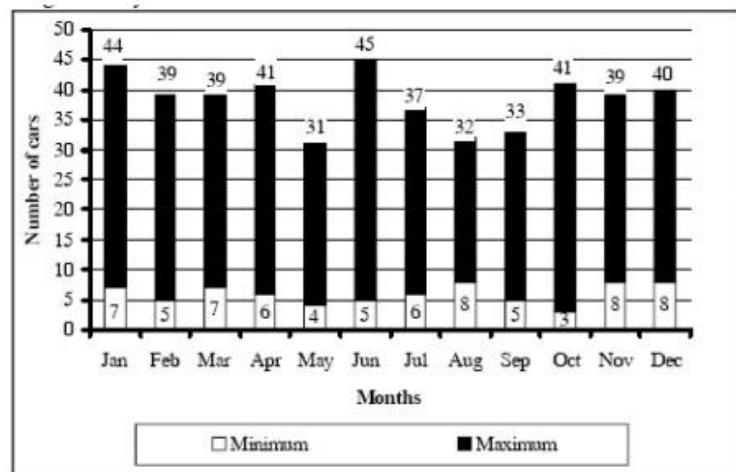
c. Lucknow school honoured their representative Puneet for being the only member across all the schools to win the medals for the acts of promotion of each of the qualities:- honesty, literacy, cleanliness and discipline.

d. Zaheer and Qadir celebrated the results, which clearly stated that their common school, i.e. Delhi school has won the maximum number of medals across all the schools.

e. Delhi school, along with some other school, received the honour of being represented by maximum number of members at IQF.

**Directions for questions 6 to 10:** Answer the questions on the basis of the information given below:

Mercedes, Mazda, Nissan, Mitsubishi, Porsche, Ferrari, Renault and Honda are the only companies that manufacture cars in the market. The following bar graph provides information about the maximum number of cars manufactured by any company in each month of a particular year. The same information holds for minimum number of cars manufactured as well. Aggregate number of cars manufactured in every month is the same and the aggregate number of cars manufactured throughout the year is 1200.



The following table provides information about the companies which manufactured minimum and maximum number of cars in each of the given 12 months.

	January	February	March	April	May	June
<b>Maximum</b>	Renault	Honda	Mercedes	Ferrari	Mercedes	Nissan
<b>Minimum</b>	Mitsubishi	Renault	Honda	Renault	Nissan	Porsche
	July	August	September	October	November	December
<b>Maximum</b>	Porsche	Ferrari	Nissan	Mitsubishi	Porsche	Mazda
<b>Minimum</b>	Honda	Porsche	Mazda	Mercedes	Nissan	Ferrari

The number of cars manufactured by every company, other than those who manufactured the minimum and the maximum number of cars, in each month is at least 2 more than the minimum and at least 5 less than the maximum number of cars manufactured in each month. Data from any question can be used for the subsequent questions.

6. Find the maximum possible number of cars manufactured by Mitsubishi across all the 12 months.

a. 228 b. 230 c. 233 d. 235 e. 237

7. Optimum Index (O.I.) is defined as the difference between the maximum and minimum possible number of cars that can be manufactured by a company throughout the year. Which company has the highest optimum index among all the eight companies?

a. Ferrari b. Renault c. Porsche d. Mitsubishi e. Mazda

8. Average Index (A.I.) is defined as the average of the minimum and maximum possible number of cars that could be manufactured by each company throughout the year. How many of the following statements are incorrect?

A. The A.I. for Ferrari is the highest.

B. A.I.<sub>Porsche</sub> > A.I.<sub>Renault</sub> < A.I.<sub>Mitsubishi</sub> < A.I.<sub>Mazda</sub>

C. A.I.<sub>Nissan</sub> < A.I.<sub>Ferrari</sub> > A.I.<sub>Mazda</sub> < A.I.<sub>Mercedes</sub>.

D. If arranged in the descending order of A.I., Nissan ranks fourth.

E. If arranged in the ascending order of A.I., Mercedes ranks fifth.

a. 0 b. 1 c. 2 d. 3 e. 4

9. For which of the companies the ratio of Optimum Index (O.I.) to the Average Index (A.I.) is the least?

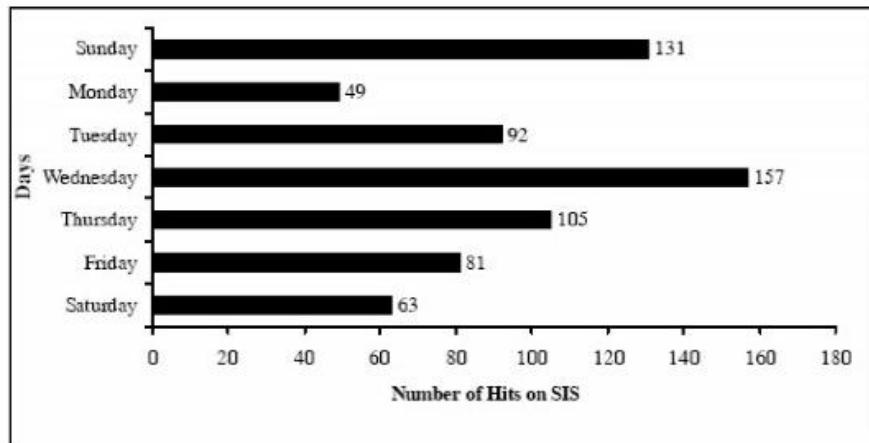
a. Nissan b. Porsche c. Mitsubishi d. Mercedes e. Honda

10. For which company the minimum number of cars that it possibly manufactured throughout the year is the second largest among all the companies?

a. Nissan b. Renault c. Mercedes d. Ferrari e. Mitsubishi

**DIRECTIONS for Questions 11 to 15:** Answer the questions on the basis of the information given below.

SIS is a website developed by Career Launcher for its students. The following bar graph provides information about the number of 'hits' on the SIS on the seven days of a particular week. Every time a student logs into the SIS it is considered to be one 'hit'. If a particular student logs into the SIS on any day, he does so at least twice and at most five times on that particular day.



**Additional Information for questions 11 and 12:** No student logged into the SIS on two different days during the week.

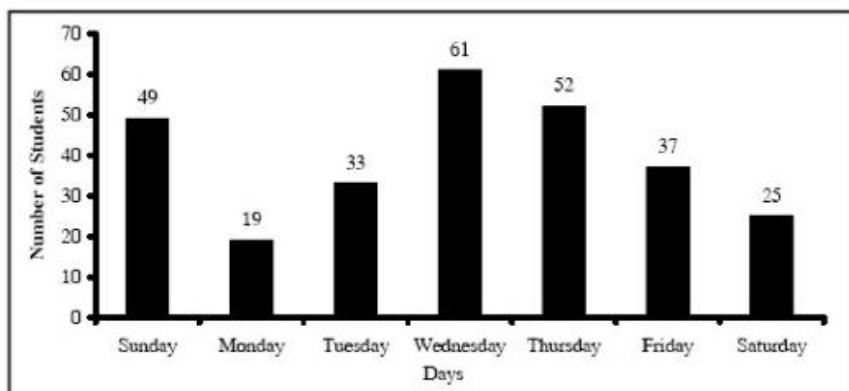
11. Find the minimum possible number of students who logged into the SIS during this particular week.

a. 135 b. 138 c. 139 d. 142 e. 140

12. For how many days the difference between the maximum and the minimum possible number of students who logged into the SIS, is not less than 27?

a. 3 b. 4 c. 5 d. 6 e. 2

**Additional Information for questions 13 to 15:** The following bar graph provides information about the number of students who logged into the SIS in the same week. It is also known that each student logged into the SIS for at most 3 days. The students who logged into the SIS on Sunday did not log into the SIS on any other day during the week and this holds true for the students who logged into the SIS on Thursday as well. Out of the students that logged into the SIS on days except Sunday and Thursday, there are at least some students who logged into the SIS on more than one day. A student is said to be a 'New User' if he/she has logged into the SIS on only one day during this week. A student is said to be an 'Old User' if he/she has logged into the SIS on at least two days during this week.



13. Find at most how many New Users logged into the SIS exactly two times on Sunday and Thursday.

- a. 89 b. 90 c. 91 d. 92 e. 85

**Additional Information for questions 14 and 15:** Out of the students that logged into the SIS on days except Sunday and Thursday, the number of New Users is least.

14. Find at least how many Old Users logged into the SIS during the week.

- a. 58 b. 61 c. 60 d. 59 e. 55

15. Which of the following cannot be the number of Old Users who logged into the SIS during the week?

- a. 86 b. 88 c. 87  
d. Both (b) and (c) e. Cannot be determined

**Directions for questions 16 to 20:** Answer the questions on the basis of the information given below.

An all India entrance test called RAT is conducted on 3rd Sunday of November every year. **TABLE 1** gives information about the average of the number of questions in each of the 10 sections of RAT. For example, in **TABLE 1** the block which is in the column of Section I and row of Section II, which contains 28 (marked in bold in the **TABLE 1**), denotes the average of the number of questions in Section I and Section II.

**TABLE 2** gives information about the number of questions solved correctly in each of the 10 sections namely I, II, III, IV, V, VI, VII, VIII, IX and X of RAT by a student A. For example, in **TABLE 2** the block which is in the row of Section I and column of Section II, which contains 14 (marked in bold in the **TABLE 2**), denotes the average of the number of questions solved correctly in Section I and Section II by the student A. Each question in RAT is either solved correctly or solved incorrectly or left unattempted.

The number of marks obtained by the student for every question solved correctly is 4. The number of marks deducted for every question left unattempted and for every question that is solved incorrectly is 1 and 2 respectively.

		TABLE 1										TABLE 2									
I	II							I	II	III	IV	V	VI	VII	VIII	IX	X				
I	1							14	11	14	15	21	24	20	18	17					
II	28	II							18	21	22	28	31	27	25	24					
III	21	28	III						18	19	25	28	24	27	21						
IV	26	33	26	IV					22	28	31	27	25	24							
V	24	31	24	29	V				29	32	28	26	25								
VI	35	42	35	40	38	VI				38	34	32	31								
VII	38	45	38	43	41	57	VII			37	35	34									
VIII	30	37	30	35	33	44	47	VIII				31	30								
IX	32	39	32	37	35	46	49	41	IX												
X	28	35	28	33	31	42	45	37	39	X											

16. For which section the difference between the total number of questions and the number of questions solved correctly in that section is the lowest?

- a. III b. VI c. VIII d. V e. VII

17. Which of the following cannot be the ratio of the number of questions solved incorrectly to the number of questions left unattempted in section VI or section X?

- a. 3 : 11 b. 3 : 4 c. 3 : 5 d. 2 : 3 e. 14 : 11

18. For how many sections the total number of questions in that section is not less than the total number of questions in section II?

- a. 4 b. 5 c. 6 d. 3 e. None of these

19. For how many sections the absolute difference between the number of questions solved correctly and the aggregate number of questions left unattempted or solved incorrectly, is not greater than that of section X?

- a. 5 b. 6 c. 7 d. 8 e. 4

20. If the number of questions solved incorrectly in each of the sections is not greater than 25% of the questions solved correctly in that particular section, then find the

minimum possible marks obtained by the student A in RAT.

- a. 845 b. 846 c. 847 d. 848 e. 840

**Directions for questions 21 to 25:** Each question is followed by two statements, I and II. Answer each question using the following instructions:

Mark (a) if the question can be answered by using the statement I alone but not by using the statement II alone.

Mark (b) if the question can be answered by using the statement II alone but not by using the statement I alone.

Mark (c) if the question can be answered by using either of the statements alone.

Mark (d) if the question can be answered by using both the statements together but not by either of the statements alone.

Mark (e) if the question cannot be answered on the basis of the two statements.

21. Is  $\frac{x}{9}$  an integer?

I.  $\frac{x}{909909}$  is an integer.

II.  $\frac{x}{567}$  is an integer.

22. Subhash ordered a certain number of books from Bhadra Publishers. If he had to make a total payment of Rs. 73.80, which includes postage charges and sales tax, what did each book cost him?

I. He paid Rs. 1.75 as postage per book.

II. The sales tax for each book is 9%.

minimum possible marks obtained by the student A in RAT.

- a. 845 b. 846 c. 847 d. 848 e. 840

**Directions for questions 21 to 25:** Each question is followed by two statements, I and II. Answer each question using the following instructions:

Mark (a) if the question can be answered by using the statement I alone but not by using the statement II alone.

Mark (b) if the question can be answered by using the statement II alone but not by using the statement I alone.

Mark (c) if the question can be answered by using either of the statements alone.

Mark (d) if the question can be answered by using both the statements together but not by either of the statements alone.

Mark (e) if the question cannot be answered on the basis of the two statements.

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I. He paid Rs. 1.75 as postage per book.

II. The sales tax for each book is 9%.

23. What is the value of  $\frac{x+y}{x} + \frac{x-y}{y}$ ?

I.  $\frac{x}{y} = 4$

II.  $\frac{y}{x} = \frac{1}{2}$

24. What is the value of  $(c + d)$ ?

I.  $c^2 - d^2 = 5$

II.  $c - d = 1$

25. Is DABC an equilateral triangle?

I. The orthocentre lies outside DABC.

II. The circumcentre coincides with the orthocentre.

#### Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
25					

## LRDI Practice Test - 12

**Directions for questions 1 to 5:** Answer the questions on the basis of the information given below.

Four friends, Asha, Esha, Isha and Usha went to a famous restaurant called Pizza Hot. They ordered two Pizzas each of their choice from the menu given below. Coincidentally, it was found that the first letters of the names of the Pizzas they ordered, matched with the respective first letters of their surnames for at least one pizza. It is known that their surnames are Hazra, Singh, Malhotra and Gupta, not necessarily in the order in which their names are mentioned. Every type of pizza is available in three sizes: Solo, Double and Family. None of the friends ordered any food other than two pizzas each in that restaurant and each of them separately paid the bill that resulted from their respective ordered pizzas.

Sl No	Types of Pizza	Price (Rs.)			Sl No	Types of Pizza	Price (Rs.)		
		Solo	Double	Family			Solo	Double	Family
1	Firenze Chilly	56	87	169	7	Raffaele's Bianco	107	158	265
2	Godfather's Choice	75	107	205	8	Red Indian Country	97	139	239
3	Hawaiian Honeymoon	87	138	239	9	Verona's Army	138	175	340
4	Margherita Classic	75	105	207	10	Torino Biggie	97	139	265
5	Montreal Ham	87	138	239	11	San Marino Imbottiti	107	169	299
6	Pollo Piccante	97	139	265	12	Sicilian Fugitive	97	139	265

Following information is available regarding their choice of pizzas and the amount of bills paid by them.

- A. Each one of the friends ordered pizzas of two different types and sizes but all of them ordered at least one Solo size pizza.
- B. Only Asha ordered two pizzas with same initial letter.
- C. Esha and Isha ordered for the same pizza of different size, but the name of that particular pizza did not start with either of their surnames.
- D. The pizzas Raffaele's Bianco and Montreal Ham were ordered one each.
- E. Ms. Malhotra's total bill was Rs. 127 less than Asha's total bill and Ms. Gupta's total bill was Rs. 81 more than Esha's total bill.
- F. The name of the Double size pizza Usha ordered started with the first letter of her surname and the same is true for the name of Solo size pizza Esha ordered.

1. Which of the following is the complete order placed by Esha?
- Raffaele's Bianco, Solo size and Montreal Ham, Double size
  - Verona's Army, Solo size and Godfather's Choice, Family size
  - Hawaiian Honeymoon, Solo size and Verona's Army, Double size
  - Verona's Army, Solo size and Montreal Ham, family size
  - None of the above
2. Which among the following is the bill amount of Asha?
- Rs. 372
  - Rs. 266
  - Rs. 314
  - Rs. 246
  - Rs. 396

3. Which of the following is the correct combination of the first name and bill amount of Ms. Malhotra?
- Esha, Rs. 343
  - Usha, Rs. 245
  - Isha, Rs. 372
  - Isha, Rs. 262
  - Esha, Rs. 294

4. How many Double size and Family size pizzas must have been ordered?

- Four Double size and no Family size pizzas
- Three Double size and one Family size pizzas
- Two Double size and two Family size pizzas
- One Double size and three Family size pizzas
- Cannot be determined

5. If the total bill was equally divided among the friends, then how much each of them would have paid?

- Rs. 346.25
- Rs. 297.75
- Rs. 301
- Rs. 312.50
- Rs. 305.50

**Directions for questions 6 to 8:** Answer the questions on the basis of the information given below.

The typical inbox of an e-mail account of a person on a particular day is as shown below:

Change Password
Mailbox Size
Folders
Create Message

Folders	Number of messages
Inbox	20
Draft	0
Sent	0
Trash	0

Any mail deleted is sent to Trash folder and is automatically cleared from it on the start of the 3rd day. Mailbox size is 100 MB (trash included). As soon as the mailbox is 80% full, a system generated mail of size 5 MB is sent to the person as a reminder. Mailbox size occupied at present is 30%. All sent mails are saved in the Sent folder and all unsent mails are saved in the Draft folder. Mail that cannot be accommodated in the available free space would bounce immediately.

#### Day 1

10 mails composed, 8 sent, 2 unsent and saved, total size 25 MB.

20 mails from friends received, total size 40 MB.

10 mails from friends deleted, total size 20 MB.

#### Day 2

8 mails in sent folder deleted.

#### Day 3

Unsent mails sent and deleted from Draft folder.

6. What is the free space at the end of Day 1?

- a. 5% b. 0% c. 20% d. 15% e. 10%

7. If I receive 5 mails of total size 10 MB, after performing the operation stated above on day 2, then how many of them will bounce?

- a. All will bounce b. Two will bounce c. One will bounce d. None will bounce e. Cannot be determined

8. If I receive 5 mails of total size 10 MB, after performing the operation stated above on day 3, then how many of them will bounce?

- a. All will bounce b. Two will bounce c. One will bounce d. None will bounce e. Cannot be determined

**Directions for questions 9 to 12:** Answer the questions on the basis of the information given below.

Several lecturers from four disciplines, viz. physics, chemistry, mathematics and biology were selected. They were to attend a recently organized faculty conclave. All applicants were classified into five age groups, namely:

AGE RANGE	AGE GROUP
Age less than 50	Young
$50 \leq \text{Age} < 60$	Middle aged
$60 \leq \text{Age} < 70$	Senior
$70 \leq \text{Age} < 80$	Stalwart
Age 80 and above	Retired

For the conclave, not more than two lecturers of a particular age group were short-listed for representing a discipline. Initially, the maximum possible lecturers were short-listed. However, only five more than half of them got selected and they finally sat for the conclave. The following observations about the selected lecturers were recorded.

I. If two lecturers were excluded from the retired lecturers, then the number of seniors and stalwarts, each is one less than the number in each of the other three age groups.

II. Total number of lecturers in physics, chemistry and biology put together is the square of an integer.

III. There is no biology lecturer who is middle aged or stalwart and there is no physics lecturer who is a senior. Every other discipline is represented by at least one lecturer from each age group.

IV. Rocky and Platy are Young physics lecturers.

Now the following questions pertain to those selected lecturers.

9. If the number of physics lecturers is greater than the number of chemistry lecturers, then which of the following is NOT possible to determine?

- a. Number of middle aged physics lecturers.
- b. Number of retired physics lecturers.
- c. Number of middle-aged chemistry lecturers.
- d. Number of retired chemistry lecturers.
- e. Both (c) and (d).

10. What can be said about the total number of physics and chemistry lecturers put together?

- I. It is atleast 13.
- II. It is at least 12.
- III. It is atmost 13.

IV. It is atmost 14.

a. Both II and IV b. Both II and III c. Both I and IV

d. Only II e. Only I

11. If Kandy is the lone retired chemistry lecturer, then which of the following is certain?

a. There is one middle aged physics lecturer.

b. There are two middle-aged physics lecturers.

c. There is one retired biology lecturer.

d. There are two retired biology lecturers.

e. Both (a) and (c).

12. Which of the combinations is NOT possible?

a. Two retired physics lecturers and two retired chemistry lecturers were selected for the conclave.

b. One retired physics lecturer and two retired chemistry lecturers were selected for the conclave.

c. One retired physics lecturer and one retired chemistry lecturer were selected for the conclave.

d. Two retired physics lecturers and one retired chemistry lecturer were selected for the conclave.

e. Both (a) and (c).

**Directions for questions 13 to 16:** Answer the questions on the basis of the information given below.

The BCCI has devised a grade system for cricket players. The players will be placed in four grades, A, B, C & D as given below. The more the points, the better the grade.

Players gaining  $> 15000$  points will be in Grade A.

Players gaining 10001 to 15000 points will be in Grade B.

Players gaining 7501 to 10000 points will be in Grade C.

Players gaining 5000 to 7500 points will be in grade D.

Players gaining  $< 5000$  points will be in Grade E.

The partial statistics of players is shown in the table. The balance data (as indicated by blank cells in the table) got deleted accidentally.

Player	Runs	Wickets	Catches	Centuries	5 wicket-haul
Ganguly	10000	50			
Tendulkar		80	80	25	5
Sehwag		40	50	10	4
Laxman	3000	0	60		
Dravid	8000	0		12	
Zaheer	1000		50		8
Kumble	1500	300	75	0	14

For the grading system,

1 run = 1 point, 1 wicket = 20 points, 1 catch = 3 points

In addition, there is a bonus point system as well :

1 century = 50 bonus points, every 5-wicket haul = 50 bonus point.

Additional information given below is available to fill up the blank cells.

I. Tendulkar has scored more runs than Ganguly.

II. Dravid has scored more runs than Sehwag.

III. Kumble has taken the highest number of wickets, double of Zaheer.

IV. Laxman and Dravid did not bowl.

V. Dravid has taken the highest number of catches.

VI. Number of catches taken by Laxman is equal to half the number of catches taken by Dravid.

13. Laxman is in Grade:

a. B b. C c. D d. E e. Cannot be determined

14. Zaheer could at best be in Grade:

a. D b. B c. C d. A e. E

15. Ganguly could at best be in Grade:

a. A b. B c. C d. D e. E

16. To be in Grade B, at least how many runs must be scored by Sehwag?

a. 8351 b. Sehwag cannot be in Grade B c. 8350

d. 7999 e. None of these

**Directions for questions 17 to 19:** Answer the questions on the basis of the information given below.

I. The total number of seats in the Parliament is 500.

II. Two alliances competed against each other.

Alliance I: UPA = Congress + RJD + DMK

Alliance II: NDA = BJP + TDP + JD(U)

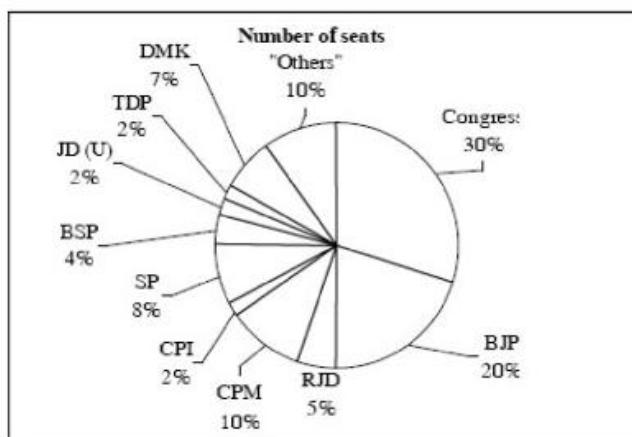
III. CPM will not support any alliance to form government.

IV. "Others" are independent members who do not belong to any party. They are backing NDA.

V. CPI would support a Congress led government.

VI. If any member of a party changes his party, he has to relinquish his seat as a member of Parliament and has to seek re-election.

For government formation a party (or a group of parties) needs at least a simple majority. Simple majority is when more than 50% of the members present cast their vote in favour of the party (or a group of parties).



17. Which of the following would have ensured NDA's victory in government formation?

I. SP and BSP did not cast their vote.

II. RJD left UPA and started supporting NDA.

III. 55 members of Congress were not present during voting procedure.

a. I and II only b. II and III only c. I and III only

d. I, II and III e. I only

18. If SP and BSP have decided to abstain from voting, how can UPA form the government under the leadership of Congress?

a. Break away 5 members from TDP.

b. Break away 10 members from "Others".

c. Make CPM support it.

d. Either (a) or (b) or (c)

e. None of these

19. What is the minimum possible number of parties with which congress must align to form a government in which at least 75% of the members support Congress? (If any party can align with Congress)

a. 1 b. 2 c. 3 d. 4 e. More than 4

**Directions for questions 20 to 25:** Each question is followed by two statements, I and II. Answer each question using the following instructions:

Mark (a) if the question can be answered by using the statement I alone but not by using the statement II alone.

Mark (b) if the question can be answered by using the statement II alone but not by using the statement I alone.

Mark (c) if the question can be answered by using either of the statements alone.

Mark (d) if the question can be answered by using both the statements together but not by either of the statements alone.

Mark (e) if the question cannot be answered on the basis of the two statements.

20. G is a sequence such that each term is 3 more than the preceding term. What is the third term of G?

I. The middle term of G is 15.

II. The first term of G is 0.

21. Arrange the 3 shapes — a square, an equilateral triangle and a circle, in order from the smallest area to the largest area.

I. The perimeter of each shape is the same.

II. The circumference of the circle is 22 cm.

22. If C is a set of integers and 3 is an element of C, is every negative multiple of 3 also an element of C?

I. Only if x is an element in C, then  $(x + 3)$  is an element in C.

II. If x is an element in C, then  $(x - 3)$  is also an element in C.

23. What is the relationship of the father with the 2 girls?

I. The girls are first cousins.

II. The girls are good friends.

24. Bhaskar paid \$130 for tickets to a series of concerts. How many of the tickets cost \$20?

Mark (c) if the question can be answered by using either of the statements alone.

Mark (d) if the question can be answered by using both the statements together but not by either of the statements alone.

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24. Bhaskar paid \$130 for tickets to a series of concerts. How many of the tickets cost \$20?

I. Each ticket cost either \$15 or \$20.

II. More than two of the tickets cost \$20.

25. If 20 students took the same test, what was the average score of the students?

I. The highest score was 80 and the lowest score was 20. No 2 students secured the same marks.

II. The difference of 19 pairs of students was exactly the same.

#### Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
25					

## Answer Key

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### LRDI Practice Test - 1

1	b	2	b	3	b	4	b	5	b	6	c	7	c	8	e	9	d	10	c
11	e	12	e	13	b	14	e	15	b	16	b	17	b	18	b	19	d	20	c
21	d	22	d	23	d	24	c	25	b										



**LRDI Practice Test - 2**

1	a	2	e	3	d	4	c	5	b	6	a	7	d	8	d	9	a	10	c
11	d	12	e	13	e	14	e	15	e	16	e	17	e	18	a	19	c	20	b
21	b	22	e	23	d	24	c	25	a										



## LRDI Practice Test - 3

1	e	2	b	3	a	4	b	5	b	6	e	7	b	8	c	9	d	10	a
11	e	12	a	13	a	14	a	15	d	16	c	17	a	18	a	19	a	20	c
21	d	22	d	23	e	24	b	25	d										



**LRDI Practice Test - 4**

1	d	2	d	3	c	4	c	5	a	6	d	7	b	8	e	9	a	10	b
11	e	12	e	13	e	14	a	15	d	16	d	17	b	18	a	19	e	20	c
21	d	22	c	23	e	24	d	25	e										



**LRDI Practice Test - 5**

1	a	2	e	3	d	4	d	5	d	6	a	7	c	8	b	9	e	10	b
11	d	12	c	13	e	14	e	15	d	16	a	17	b	18	e	19	b	20	d
21	b	22	c	23	d	24	e												



**LRDI Practice Test - 6**

1	e	2	e	3	c	4	d	5	d	6	b	7	e	8	e	9	c	10	d
11	b	12	a	13	b	14	c	15	c	16	e	17	b	18	e	19	c	20	e
21	c	22	b	23	e	24	d	25	c										



## LRDI Practice Test - 7

1	c	2	c	3	b	4	d	5	b	6	e	7	d	8	c	9	b	10	a
11	c	12	c	13	b	14	c	15	c	16	a	17	a	18	c	19	a	20	b
21	c	22	c	23	e	24	a	25	d										



**LRDI Practice Test - 8**

1	b	2	a	3	e	4	e	5	a	6	d	7	c	8	e	9	d	10	b
11	b	12	e	13	c	14	b	15	a	16	e	17	d	18	e	19	b	20	a
21	d	22	b	23	b	24	e	25	d										



## LRDI Practice Test - 9

1	b	2	e	3	e	4	b	5	b	6	e	7	d	8	d	9	c	10	e
11	e	12	a	13	a	14	d	15	c	16	a	17	d	18	b	19	d	20	a
21	e	22	a	23	e	24	e	25	a										



**LRDI Practice Test - 10**

1	a	2	d	3	b	4	b	5	b	6	d	7	a	8	c	9	d	10	a
11	b	12	b	13	b	14	c	15	e	16	c	17	b	18	a	19	e	20	c
21	c	22	d	23	d	24	e	25	d										



**LRDI Practice Test - 11**

1	d	2	e	3	b	4	a	5	e	6	c	7	e	8	c	9	d	10	c
11	c	12	b	13	a	14	d	15	b	16	d	17	d	18	b	19	c	20	b
21	c	22	e	23	c	24	d	25	c										



**LRDI Practice Test - 12**

1	c	2	a	3	b	4	c	5	e	6	b	7	a	8	d	9	d	10	b
11	d	12	c	13	d	14	a	15	a	16	b	17	d	18	d	19	d	20	b
21	a	22	c	23	e	24	d	25	d										



## Explanations: Fundamentals of Logical Reasoning & Data Interpretation (Part-III)

### LRDI Practice Test - 1

1. b There are just two hotels having grade 'A' and exceeding 13,450 customers, viz. Taj Residency and Mandar International.

2. b Just count the hotels with grade 'A' or 'B' and having more than 11,500 customers per year.

3. b There are just five hotels with their names starting with alphabet 'M' or 'R'. Of these Madhuban Deluxe has the highest customers per year and which is greater than 1,500, the second highest. So even with increased customers for other hotels, Madhuban Deluxe will have the highest customers per year.

4. b Same explanation as in question 3.

5. b In metro, valuation is  $> 10$  times the equity. In A circles, valuation is more than 4 times but less than 5 times. In B and C circles, valuation is more than 5 times, so valuation is least for A circles.

6. c Combined share of metro and A circles = Rs. 1,48,350 million

Total valuation of all circles = Rs. 2,02,900 million

Thus, percentage share of metro + A circles =  $\frac{148350}{202900} < 74\%$ , i.e. 73.18%

7. c Total losses written off is Rs. 1,000 crore = Rs. 10,000 millions. Thus, the increase in valuation for Metro and A circles is Rs. 4,444.4 million and Rs. 5,555.5 million

respectively. Valuation to equity ratio has to be equal for A and B circles by reducing the equity of A circles, thus  $\frac{67100+5556}{x} = \frac{44500}{7875}$  or  $x = \frac{72656 \times 7875}{44500} = \text{Rs.} 12,858$  million.

Thus, percentage decrease in equity of A =  $\left[1 - \frac{12858}{15300}\right] = 16\%$

8. e Total valuation for

Delhi :  $81250 \times 0.42 = 34,125$

Maharashtra :  $67100 \times 0.25 = 16,775$

Karnataka :  $67100 \times 0.22 = 14,762$

$\Rightarrow$  Delhi : Maharashtra : Karnataka = 34.1 : 16.7 : 14.7

#### Alternative Solution:

Valuation of Maharashtra is more than that of Karnataka, which is not in any of the options.

9. d By observation, we can say that E has registered maximum increase.

10. c (i) Price of share A on day 1 = Rs. 198

Price of 100 shares on day 1 =  $198 \times 100 = \text{Rs.} 19,800$

If we encash 50 shares of A on day 5, we get

$201 \times 5 = \text{Rs.} 10,050$

And on day 6 =  $203 \times 50 = \text{Rs.} 10,150$

Gain in case of share A is  $(10050 + 10150) - 19800 = 20200 - 19800 = \text{Rs.} 400$

(ii) Investment of share B on day 1 =  $1012 \times 50$

Total investment = Rs. 50,600

Total investment on day 1 on share C =  $52 \times 50 =$  Rs. 2,600. Total investment =  $50600 + 2600 = 53200$ .

Amount of share B on day 6 =  $1067 \times 50 =$  Rs. 3,350

Amount of share C on day 6 =  $56 \times 50 =$  Rs. 2,800

Total return =  $53350 + 2800 =$  Rs. 56,150

Gain =  $56150 - 53200 =$  Rs. 2,950

(iii) Investment of share B on day 1 =  $1012 \times 100$

If 50 shares of B and C are encashed on Days 5 and 6, then profit =  $(1034 + 1067) \times 50 - 1012 \times 100$

= Rs. 3850

So, (iii) is better.

11. e We can observe from the table that the percentage increase for stock E is more than 20%.

12. e Stock C has shown the least increase in absolute terms but in percentage terms stock D is the least. Volatility is not defined whether it is in percentage terms or in absolute or something else. So none of these is the correct choice.

13. b Day 4 =  $199 \times 20 + 1030 \times 30 + 54 \times 25 + 414 \times 15 + 62 \times 10 = 3980 + 30900 + 1350 + 6210 + 620$

Day 4 = 43060

Day 5 =  $201 \times 20 + 1034 \times 30 + 55 \times 25 + 417 \times 15 + 63 \times 10 = 43300$

$$\text{Percentage change} = \frac{\text{Day 5} - \text{Day 4}}{\text{Day 4}} = \frac{43300 - 43060}{43060} = \frac{28050}{43060} \times 100 = 0.55\%$$

14. e Percentage increase in gross assets from 2001-02 to 2005-06 =  $\left[ \left( \frac{800}{130} \right) - 1 \right] \times 100 = 515.4\%$

15. b Total disbursements from 2002-03 to 2004-05 =  $560 - 65 =$  Rs. 495 crore

16. b Maximum percentage increase in gross profit is for 1995-96 =  $\left[ \left( \frac{33}{21} \right) - 1 \right] \times 100 = 57.1\%$

**For questions 17 to 21:**

17. b

Route	Carrier	No. of tickets	Fare	Fuel (Rs.)
I	Jet Airways	3	Rs. 14100	2820
II	Indian Airlines	4	Rs. 13640	2728
III	Air Deccan	2	Rs. 3510	912
			Rs. 6460	

18. b Total expenses = Fare + Time not used in working

Wage = Rs. 200 / hr

⇒ By air = Rs. 2,375 + Rs. 200 × 2 = Rs. 2,775 and

By train = Rs. 2,286 + Rs. 200 × 9 = Rs. 4,086

So, profit = Rs. 4,086 - Rs. 2,775 = Rs. 1,311 (Since total expenses are lower for sending him by Air Deccan).

19. d Neither remuneration nor number of employees is known.

20. c Check the options, (c) is maximum.

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20. c Check the options, (c) is maximum.

21. d The last digit can be found only if we know which number is higher. Hence, both the statements are needed.

22. d Overall winning percentage is the weighted average of percentage won in the 2 years, with the number of matches being the weights.

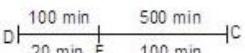
Thus, we need both the statements.

23. d If he was late on time for the class as per his watch, he would have been  $22\frac{1}{2}$  min late.

24. c We can write the equation as  $3rd(r + d) = 0$ , r can be  $-\sqrt{3}$  or r can be 0. Hence using either of the statements alone, one can say that  $r = -\sqrt{3}$ .

25. b Using A: As only ratio of speeds is given so it is not sufficient.

#### Using B:



As Shyam takes 100 minutes to reach E Ram must have also travelled for 100 minutes to reach E. As ED is covered by Shyam in 20 minutes. So, he is 5 times faster than Ram. So Ram must have taken 5 times time to reach Chandigarh i.e. 10 hours.

**LRDI Practice Test - 2**

1. a Part of body made of neither bones nor skin nor Muscles

$$= 1 - \left( \frac{1}{3} + \frac{1}{10} + \frac{1}{6} \right) = 1 - \left( \frac{10+3+5}{30} \right) = 1 - \frac{18}{30} = 1 - \frac{6}{10} = \frac{4}{10} = \frac{2}{5}$$

2. e Quantity of water in a body of 50 kg = 70% of 50 kg =  $\frac{70}{100} \times 50 = 35 \text{ kg}$

$$3. d \text{ Skin} = \frac{1}{10} = 10\%$$

Proteins = 16%

$$\Rightarrow \frac{10}{16} \times 100 = 62.5\%$$

4. c Percentage requirement of proteins and other dry elements = 30%

Therefore, the required angle =  $\left( \frac{30}{100} \times 360 \right)^\circ = 108^\circ$

5. b In value term, Godrej appreciation has been highest = 200

6. a Very clearly, Dabur, which has become almost 3 times in 2008 from 2006.

7. d Average share price has not decreased by more than 20%. So no share is bought. So (o, o)

8. d Shares are bought and not sold, so no tax is paid, since tax is paid only when shares are sold.

$$9. a \text{ Shastri} = 7 \times \frac{6}{3} = 14; \text{ Akram} = 10 \times \frac{6}{3} = 20$$

$$\text{Razzaq} = 12 \times \frac{6}{1} = 72; \text{ Binny} = 9 \times \frac{6}{2} = 27$$

$$10. c \text{ Akram} = \frac{32}{3} > 10; \text{ Azad} = \frac{31}{3} < \frac{32}{3}$$

$$\text{Shastri} = \frac{12}{3} = 4; \text{ Binny} = \frac{32}{2} = 16$$

11. d It seems, either Maninder or Shastri is the answer.

$$\text{Maninder} = \frac{21}{11} = 1.9, \text{ Shastri} = \frac{12}{7} = 1.7$$

12. e We cannot find the runs scored as we do not know the extras.

13. e Number of literate females in India in 1991 = 39.4% of 430 million = 169.4 million

14. e Cannot be determined because we do not have the population (the weights for average) for the states.

15. e Number of illiterates in Maharashtra in 2001 = 36.9% of 19 million = 7.01 million

16. e Because the infant population of states is not given. Hence, the data is insufficient.

**For questions 17 to 21:**

17. e Some people can be lawyers as well as women

Also passage of the bill is not defined.

∴ We cannot find out the answer.

$$18. a \text{ Average age} = \frac{63 \times 550 + 58 \times 250}{550 + 250} = 61.43.$$

19. c Minimum case is when all the Rajya Sabha female members are Hindus, i.e. 42.

So, minimum number of Hindu males is 64.

$$20. b \text{ Percentage of Congress(I) members} = \frac{267 + 112}{550 + 250} = \frac{379}{800} = 47.37\%$$

10. c Akram =  $\frac{32}{3} > 10$ ; Azad =  $\frac{31}{3} < \frac{32}{3}$

Shastri =  $\frac{12}{3} = 4$ ; Binny =  $\frac{32}{2} = 16$

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21. b From statement I, we have  $Y > -|X|$ , which means Y is less than or greater than X. So statement I by itself cannot answer the question. From statement II, we have  $Y > |X|$  which means Y is greater than X. So it is sufficient.

22. e The sum of a, b and c cannot be found from statements I and II individually or together.

23. d Statement I alone is not sufficient as the total number of guests is unknown.

Statement II alone is not sufficient as the proportion of single-scoop and double-scoop is not known.

Combining statements I and II, we can find the solution.

24. c Statement I indicates that n is divisible by 1, the 2 prime numbers and their product. Hence, there are 4 different positive integers. From statement II, the factors of 8 are 1, 2, 4 and 8 itself, again 4 different positive integers.

25. a Using statement (I):

$$a \times b = 16 \Rightarrow a = 4, b = 4$$

$$a = 2, b = 8$$

$$a = 8, b = 2$$

In all the above cases, the last digit of  $(5 \times ab)^{ab}$  will be zero.

So statement (I) alone is sufficient.

Statement (II) alone is not sufficient.

**LRDI Practice Test - 3**

1. e Percentage =  $\frac{356}{3694} \times 10 \approx 10\%$

2. b Population of Hungary =  $\frac{123}{0.24} = 512$

Population of Pakistan =  $\frac{285}{2.62} = 109$

So difference = 403

3. a Japan

4. b Aggregate deposits for the year ended March 1999 =  $(717271 - 111861) = \text{Rs. } 6,05,410$ .

Hence, percentage increase in deposits =  $\left( \frac{111861}{605410} \right) \times 100 = 18.5\%$

5. b  $\left( \frac{366003}{717271} \times 100 = 51\% \right)$

6. e  $\left( \frac{800000 - 717271}{717271} \times 100 = 11.5\% \right)$

7. b For a credit deposit ratio of 60%, if deposit is Rs. 8,00,000 crore, then deposit should be Rs. 4,80,000 crore.

$\left( \frac{480000 - 366003}{366003} \times 100 = 31\% \right)$

8. c Hindu population in 1971 =  $1.2 \times 0.78 \times 665.3 = 622.72$

Percentage increase =  $\frac{622.72 - 549.8}{549.8} \times 100 = 13.3\%$

9. d Increase in total population =  $548 - 439 = 109$  million

Increase in Hindu population =  $453 - 366 = 87$  million

Increase in Hindu population in total population increased =  $\frac{87}{109} \approx 80\%$

10. a Population of Hindu, Jain and others in 1941 = 424 million

Population of Hindu, Jain and others in 1961 = 641 million.

Ratio =  $\frac{424}{641} \approx \frac{2}{3}$

11. e Hindu in 1971 =  $549.8 \times \frac{549.8}{453.4} \approx \frac{(550)^2}{450} \approx 660$  million

Others in 1971 =  $\frac{75.5 \times 75.5}{61.4} \approx \frac{(75)^2}{60} = 94$  million

Ratio =  $\frac{660}{94} \approx \frac{7}{1}$

12. a Clear from Data.

13. a Clear from Data.

14. a R.D. =  $\frac{604}{16} - \frac{604}{20} = 37.75 - 30.2 = 7.55$

J.K. =  $\frac{503}{20} - \frac{503}{22} = 25.15 - 22.86 = 2.29$

M.K. =  $\frac{902}{21} - \frac{902}{23} = 43 - 39.21 = 3.79$

A.S. =  $\frac{832}{20} - \frac{832}{27} = 39.62 - 34.67 \approx 5$

Clearly R.D. has the highest difference.

15. d Calculating the strike rate of the given bowlers we get

- (a) 3.2 for Harmission
- (b) 4.68 for Shane Warne
- (c) 4.26 for M. Muralidharan
- (d) 2.9 for Pollock

**For questions 16 to 20:**

16. c Except Reliance Growth, Birla Dividend Yield Plus and Templeton India Growth all others fit in the condition.

17. a Reliance Growth is maximum at 0.58.

18. a Templeton India Growth is 2nd best at 0.52.

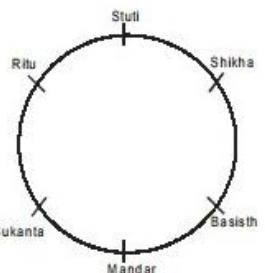
19. a HSBC Equity - 0.09

Franklin India Blue-chip - 0.14

20. c Barring top - 3, all others are eligible.

21. d Combining both the statements, we can determine that S is standing at the middle position.

22. d Combining (I) and (II), we get the following sitting arrangement.



23. e Combining (I) and (II):

The oldest institute could be any one of the three, i.e. Career Launcher, Erudite, or IMS.

Hence, it cannot be determined.

24. b The cyclicity of 2 is 4.

Using statement (I), xy can be 43, 49, 83, or 89.

So last digit of  $(72)^{xy}$  could be 2 or 8.

Using statement (II), xy can be 46 or 86.

So the last digit of  $(72)^{xy}$  has to be 4.

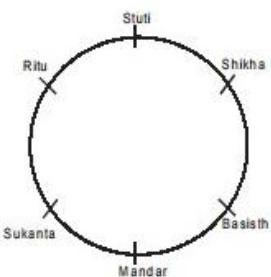
25. d Combining (I) and (II):

$$c = x$$

$$a = x - 1$$

$$b = 2x$$

$$d = 2x + 2$$



$$\text{So } \frac{a}{b} = \frac{x-1}{2x} \text{ and } \frac{c}{d} = \frac{x}{2x+2}$$

$$ad = (x-1)(2x+2) = 2x^2 - 2$$

$$bc = 2x(x) = 2x^2$$

$$\text{As } ad < bc, \frac{a}{b} < \frac{c}{d}$$

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24. b The cyclicity of 2 is 4.

Using statement (I), xy can be 43, 49, 83, or 89.

So last digit of  $(72)^{xy}$  could be 2 or 8.

Using statement (II), xy can be 46 or 86.

So the last digit of  $(72)^{xy}$  has to be 4.

25. d Combining (I) and (II):

$$c = x$$

$$a = x - 1$$

$$b = 2x$$

$$d = 2x + 2$$

**LRDI Practice Test - 4**

1. d In 1985, production of rice and wheat is 393 lakh tonne and 331 lakh tonnes respectively.

Hence, the ratio of production of rice to wheat =  $393 : 331 = 1.2 : 1$

2. d Among all the crops grown in Bihar, MP and Maharashtra, Jowar has the highest production.

3. c Production of wheat by Punjab as a percentage of total production of India =  $\frac{103}{331} = 31.1\%$

4. c Total number of OBC students =  $10 + 12 + 11 + 10 + 11 + 13 = 67$

Total number of industry-sponsored students =  $2 + 1 + 1 + 2 + 1 + 2 = 9$

Total number of SC/ST students =  $15 + 16 + 18 + 19 + 11 + 10 = 89$

5. a Total number of outside university students =  $3 + 2 + 4 + 1 + 2 + 3 = 15$

Total number of outside state students =  $2 + 2 + 4 + 1 + 2 + 3 = 14$

Total number of OBC students =  $10 + 12 + 11 + 10 + 11 + 13 = 67$

Total number of college III students:

General category = 35% of 500 = 175

Others =  $3 + 4 + 4 + 5 + 11 + 18 + 1 = 46$

Hence,  $\frac{(15+14+67)}{(175+46)} \times 100 = 43.4\%$

6. d In college III, total number of handicapped, outside university, NRI and OBC students = 23 and total number of outside state, SC/ST and industry-sponsored students = 23.

7. b In college IV, students admitted through quotas = 38.

Students admitted through general quota = 14% of 500 = 70

Hence,  $\frac{38}{70} \times 100 = 54.28\%$

8. e None of the above: the figures given are for increase in GDP.

9. a  $1 \times (1.025)^4 \times (1.018)^4 = 1.1854$

10. b It is clear from the table.

11. e Since we cannot take average value of GDP because of possibility of different GDP figures for different regions within a group.

12. e Cannot determined because data of each region is not given.

13. e Required cost =  $(240 \times 1.5) + (1200 \times 3) + (840 \times 1.8) = \text{Rs. } 5,472$

14. a Required average =  $\frac{48 \times 1.5 + 48 \times 1.6 + 48 \times 2.4 + 48 \times 2 + 48 \times 1}{(48 + 48 + 48 + 48)}$

or  $\frac{1.5 + 1.6 + 2.4 + 2 + 1}{5} = \text{Rs. } 1.7$

15. d The cost of transportation for each alternative are:

(1)  $300 \times 2.8 = \text{Rs. } 840$

(2)  $200 \times 3 = \text{Rs. } 600$

(3)  $300 \times 1.5 = \text{Rs. } 450$

(4)  $400 \times 1.1 = \text{Rs. } 440$

Obviously, the cost of transportation of alternative (d) is the least.

16. d Required percentage =  $\frac{1200 - 240}{240} \times 100\% = 400\%$ .

#### Alternative method:

In stead of using the formula for percentage growth

$$= \frac{\text{Final} - \text{Initial}}{\text{Initial}} \times 100; \text{ we can use; } 100 \times \left( \frac{\text{Final}}{\text{Initial}} - 1 \right);$$

as it saves one mathematical operation of subtraction.

$$\text{So } \left( \frac{1200}{240} - 1 \right) \times 100 = (5 - 1) \times 100 = 400\%$$

17. b 1997-98, nearly 50% increase. (Can be figured out by looking at the slope)

18. a Company turnover in 1997-98 = Rs. 250 crore.

$$\text{Total industry turnover in 1997-98} = 250 \times \frac{100}{7}$$

$$\text{Total industry turnover in 1998-99} = \frac{250 \times 100}{7} \times 1.1$$

Company's share in 1998-99 = Rs. 220 crore

$$\therefore \text{Company's share} = \frac{220 \times 7 \times 100}{250 \times 1.1 \times 100} = \frac{14}{25} = 5.6\%$$

19. e 200% increase in 4 years. (From 3 crore to 9 crore

or 50% average annual growth rate.)

20. c Ratio =  $\frac{165}{3} = 55$ . (Do not write data for every year, try to do it mentally)

This is maximum in 1996-97.

21. d Statements I and II alone are not sufficient to determine Ravi's age. From statement I, we get Ravi's age but from I, we get  $Ravi + 10 = 2(Ram + 10)$  and from statement II, Ram = 5 years old.

Therefore,  $Ravi = 30 - 10 = 20$ -year-old.

22. c From statement I, 4 boys and 3 girls,

i.e. every boy has 3 brothers and 3 sisters.

From statement II,

every girl has 3 brothers and 3 sisters

23. e 'x', 'y', 'z' be the lengths of the ropes in the increasing order of length.

Then from statement I,  $y + z = 10$

and from statement II,  $x + y = 9$

2 equations and 3 variables. Thus, cannot get 'x'.

24. d Combining I and II, we must have 6 silver and 2 bronze coins. No other possibility is there.

25. e Combining I and II, the only information we get is that C has four sisters. Now R has four siblings but how many brothers and sisters is not known. Hence, the number of uncles for K cannot be determined.

**LRDI Practice Test - 5**

1. a Percentage change in exports of automobiles excluding HCVs in 1993-94 to 1990-91

$$= \frac{70 + 83 + 5 - 20 - 44}{4234} \times 100 = \frac{94}{4234} \times 100 = 2.2\%$$

2. e We know the total number of two-wheelers in 1990-91 and 1993-94. But we do not know the number of two-wheelers which were exported to EU in 1990-91 and 1993-94.

Hence, data is insufficient.

3. d The total revenue of government through duty on exports

$$= 33000 \times 1.2 \times 721 \times 10^2 = 285 \times 10^7$$

= Rs. 285 crore

4. d Revenue earned by LCVs = Rs.  $1012 \times 5.5$  crore = Rs. 5,566 crore

Revenue earned by LMCs = Rs.  $823 \times 4.2$  crore = Rs. 3,456.6 crore

Total revenue in US dollars =  $\frac{5566 + 3456.6}{42.5}$  crore = \$ 21.2 million

5. d Cost of production (or) wage bill = Man-hour worked  $\times$  Hourly wages  $\times$  Days worked

Now it is very clear from the table that year 2000 has the highest value.

6. a It is clear that the least man-hours worked is in 1970 =  $1300 \times 12 = 15600$  man-hours  $\times 250$  days

7. c Percentage increase in production is always higher than the increase in number of workers.

8. b 1,300 workers by working 12 hr per day can produce 550 tonnes. Hence, by working 24 hr per day they can produce a maximum of 1,100 tonnes.

Hence, they can meet targets of 1980 but not of 1985.

For questions 9 to 12:

Term	Special price per issue	Percentage decrease from previous term
1	22	—
2	20	Approx. 9%
3	18	10%
4	16	11.11%
5	13.5	15.6%

9. e

10. b Effective price (EP) =  $480 + 480 = 528$  for 24 issues

$$\frac{\text{EP}}{\text{Issue}} = \text{Rs. } 22$$

EP for 5 years =  $810 + 0.300 = 510$  for 60 issues.

$$\frac{\text{EP}}{\text{Issue}} = \text{Rs. } 8.5$$

Difference = Rs. 13.5

11. d  $\frac{\text{Computed special price}}{\text{News - stand price for each}}$

12. c EP (3 years) =  $648 + (24 \times 3) 60 = 660$

$$\frac{\text{EP}}{\text{Issue}} = \frac{660}{36} = \text{Rs. } 18.33$$

13. e  $1250 = 18\%$ , then

$$100\% = \frac{1250 \times 100}{18} \approx 70 \times 100 = 7000 \text{ crore}$$

14. e Cannot be determined as only market share is given.

15. d HP's sales of peripherals =  $\frac{2500}{7} = \text{Rs. } 357 \text{ crore}$

HP's share of peripheral market = 30.4%

Hence, total market =  $\frac{357 \times 100}{30.4} = \text{Rs. } 1174 \text{ crore}$

16. a Revenues from consultancy services = 8% of 6945 crore = 555.6

Revenues from PC servers =  $\frac{357 \times 100}{30.9} = 1,155$

Hence, consultancy services as percentage of PC servers =  $\frac{555.6}{1155} \times 100 = 48.1\%$ .

**For questions 17 to 20:** In the pie diagram, the expenses are given in total amount of Rs. 3,600.

17. b Family A yields =  $\frac{18}{360} \times 9600 = \text{Rs. } 480$

B yields =  $\frac{15}{360} \times 14400 = \text{Rs. } 600$

$\Rightarrow$  Ratio = 480 : 600 = 4 : 5

18. e Family A spends =  $\frac{48}{360} \times 4800 = \text{Rs. } 640$

B spends =  $\frac{39}{360} \times 7200 = \text{Rs. } 780$

$\Rightarrow$  Required percentage =  $\frac{640}{780} \times 100 = 82\%$

19. b For family A, light =  $\frac{18}{360} \times 4800 = 240$

For family B, light =  $\frac{15}{36} \times 7200 = 300$

$\Rightarrow$  Difference = 300 - 240 = Rs. 60 (least)

20. d Percentage of expenditure of A on food =  $\frac{96}{360} \times 100$

Percentage of expenditure of B on food =  $\frac{110}{360} \times 100$

$\Rightarrow$  Ratio = 96 : 110 = 48 : 55

21. b The factors of 630 =  $2 \times 3 \times 3 \times 5 \times 7$ . By using the statement II, the sum of the 2 numbers is 153. Therefore, out of the factors of 630,

$(3 \times 3 \times 7 = 63) + (3 \times 3 \times 2 \times 5 = 90)$  add up to give 153. Hence, the 2 numbers are 63, 90 and we can find the absolute difference between them.

Hence, by using statement II only we get the answer.

22. c From statement I,  $\frac{110}{100}X = Y$

Required ratio =  $\frac{90Y}{100X} = \frac{90}{100} \times \frac{110}{100}$

Statement I alone is sufficient.

From statement II,  $\frac{10X}{100} = \frac{10}{11} \times \frac{10}{100}Y$

Similarly, statement II alone is sufficient.

$$\Rightarrow \text{Required percentage} = \frac{640}{760} \times 100 = 82\%$$

19. b For family A, light =  $\frac{18}{360} \times 4800 = 240$

For family B, light =  $\frac{15}{36} \times 7200 = 300$

$\Rightarrow$  Difference =  $300 - 240 = \text{Rs. } 60$  (least)

20. d Percentage of expenditure of A on food =  $\frac{96}{360} \times 100$

Percentage of expenditure of B on food =  $\frac{110}{360} \times 100$

$\Rightarrow$  Ratio =  $96 : 110 = 48 : 55$

21. b The factors of  $630 = 2 \times 3 \times 3 \times 5 \times 7$ . By using the statement II, the sum of the 2 numbers is 153. Therefore, out of the factors of 630,

$(3 \times 3 \times 7 = 63) + (3 \times 3 \times 2 \times 5 = 90)$  add up to give 153. Hence, the 2 numbers are 63, 90 and we can find the absolute difference between them.

Hence, by using statement II only we get the answer.

22. c From statement I,  $\frac{110}{100} X = Y$

Required ratio =  $\frac{90Y}{100X} = \frac{90}{100} \times \frac{110}{100}$

Statement I alone is sufficient.

From statement II,  $\frac{10X}{100} = \frac{10}{11} \times \frac{10}{100} Y$

Similarly, statement II alone is sufficient.

23. d Statement I is necessary and statement II is also needed as if we take:

$$\frac{x}{y} = \frac{1}{2} < 1$$

$$c = 98$$

$$\therefore \frac{x-98}{y-98} = \frac{-97}{-96} = \frac{97}{96} > \frac{1}{2}$$

$$\therefore \frac{x-c}{y-c} > \frac{1}{2}$$

This defeats the given case. Thus, both statements I and II are needed.

24. e The IIInd statement tells us that triangle QPR is a right angled triangle but the information is given only of perpendicular distance QR, no information is given about the base, so even by combining both the statements we cannot get the length of PR.

It cannot be answered using both the statements.

**LRDI Practice Test - 6**

1. e If the Republicans win 97 seats, percentage of swing =  $\frac{(97 - 65)}{4} = 8$

Democrats win  $90 - 8(3) = 66$  seats.

2. e No relation between voters turnout (votes polled) and percentage of swing are given.

3. c (iii) adds up to more than 200 seats.

(ii) gives negative value for Socialists.

4. d For republicans to get 100 seats the vote swing must be 8.75% which is not an integer.

5. d The maximum observed value of 's' is 10. Sam must have answered 10 questions at least on one day. The minimum he answers on any day is 5. From Monday to Thursday there are 14 queries from the previous week and 10 from that week. Hence in all there are 24 queries. So there is no way he could have answered 10 queries on any day from Monday to Thursday. So he must have answered the maximum (10) number of queries either on Friday or on Saturday.

6. b The queries received on Saturday have to be all answered on Saturday. On Thursday Sam has to answer atleast 1 query that was received that day and on Friday Sam has to answer at least three queries that were received on that day. All the other queries can definitely be answered with atleast a day's delay.

Hence the minimum number that has to be answered on the day of receipt is

$$(4) + (5) + (1) + (7 + 3 + 1) = 21.$$

**For Example,** they can plan their schedule in the following manner:

	Mon	Tue	Wed	Thu	Fri	Sat
DI	8 by Anu	18 by Anu	18 by Anu	10 by Anu	4 by Anu	(4)* + 2 by Anu
LR	6 by Dudi	6 by Dudi	6 by Dudi	6 by Dudi	1 by Dudi	(5)* + 7 by dudi
QA	2 by Tiru	15 by Tiru	15 by Tiru	15 by Tiru	6 by Tiru, 5 by Dudi and 4 by Anu	(1)* + 9 by Tiru
VA	5 by Sam	5 by Sam	5 by Sam	4 + (1)* by Sam	(3)* + 4 by Sam	(7)* + 3 by Sam

( )\* indicates queries received on the same day.

7. e If all conditions have to be satisfied on each day atleast 21 queries have to be answered.

The number of incoming queries on M, W, Th, Fri, Sat are all less than 21, hence there must definitely be some carry over from the previous day in the week for each of these days.

8. e Number of queries of the beginning of the week = 103.

Number of queries received during the week = 107.

Hence number of queries answered =  $(103 + 107) - 20 = 190$

9. c In all DI has  $(24 + 40) = 64$  queries to be handled.

Similarly LR has 37 queries to be handled.

QA has 72 queries to be handled.

VA has 37 queries to be handled.

Now range for dudi is  $6 \leq d \leq 12$ ; so at least on one day he answered 12 queries, so minimum number of queries answered by Dudi in the week =  $6 \times 5 + 12 = 42$ .

$42 \leq$  Number of queries that can be answered by Dudi in a week  $\leq 66$ .

As explained above, minimum number of queries answered by Tiru in the week = 25.

25 Number of queries that can be answered by Tiru in a week 77

Similarly,  $58 \leq$  Anu  $\leq 98$  and  $35 \leq$  Sam  $\leq 55$ .

If Dudi answers the LR queries than he has to move to other sections viz. either DI or QA.

So, atmost queries of three sections could be handled by one single respondent.

#### For questions 10 to 13:

10. d The three friends whose houses are at a minimum possible distance from the house of A are C, D and E.

There are 6 ways by which A can visit C, D and E.

Route	Distance (kms)
A <sub>H</sub> -E <sub>H</sub> -C <sub>H</sub> -D <sub>H</sub>	48
A <sub>H</sub> -C <sub>H</sub> -D <sub>H</sub> -E <sub>H</sub>	44
A <sub>H</sub> -C <sub>H</sub> -E <sub>H</sub> -D <sub>H</sub>	40
A <sub>H</sub> -D <sub>H</sub> -C <sub>H</sub> -E <sub>H</sub>	45
A <sub>H</sub> -D <sub>H</sub> -E <sub>H</sub> -C <sub>H</sub>	39
A <sub>H</sub> -E <sub>H</sub> -D <sub>H</sub> -C <sub>H</sub>	46

Now, D<sub>H</sub> - E<sub>O</sub> < E<sub>H</sub> - E<sub>O</sub> and C<sub>H</sub> - E<sub>O</sub>

D<sub>H</sub> - C<sub>O</sub> < E<sub>H</sub> - C<sub>O</sub> and C<sub>H</sub> - C<sub>O</sub>

D<sub>H</sub> - D<sub>O</sub> < E<sub>H</sub> - D<sub>O</sub> and C<sub>H</sub> - D<sub>O</sub>

and for A<sub>H</sub> - C<sub>H</sub> - E<sub>H</sub> - D<sub>H</sub> the distance travelled is 40 Kms.

Now from D there are again 6 ways by which A can reach his office A<sub>O</sub>

Route	Distance (kms)
D <sub>H</sub> -E <sub>O</sub> -C <sub>O</sub> -D <sub>O</sub> -A <sub>O</sub>	54
D <sub>H</sub> -E <sub>O</sub> -D <sub>O</sub> -C <sub>O</sub> -A <sub>O</sub>	53
D <sub>H</sub> -C <sub>O</sub> -E <sub>O</sub> -D <sub>O</sub> -A <sub>O</sub>	52
D <sub>H</sub> -C <sub>O</sub> -D <sub>O</sub> -E <sub>O</sub> -A <sub>O</sub>	59
D <sub>H</sub> -D <sub>O</sub> -C <sub>O</sub> -E <sub>O</sub> -A <sub>O</sub>	60
D <sub>H</sub> -D <sub>O</sub> -E <sub>O</sub> -C <sub>O</sub> -A <sub>O</sub>	52

Therefore minimum distance that A can travel is  $40 + 52 = 92$  kms.

11. b

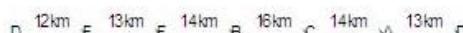
A <sub>H</sub> -A <sub>O</sub>	12 kms
B <sub>H</sub> -B <sub>O</sub>	13 kms
C <sub>H</sub> -C <sub>O</sub>	18 kms
D <sub>H</sub> -D <sub>O</sub>	12 kms
E <sub>H</sub> -E <sub>O</sub>	17 kms
F <sub>H</sub> -F <sub>O</sub>	19 kms

Now combining each of the above distances with the distances given in table 2. i.e. Distance of A<sub>H</sub> from B<sub>H</sub>, C<sub>H</sub>, D<sub>H</sub>, E<sub>H</sub> and F<sub>H</sub> and so on, we find that for C, E and F the distances of their house from their respective offices is not less than the distance from the houses of any of his friends.

12. a

$$\begin{array}{ccccccc} B_H & \xrightarrow{15 \text{ km}} & D_H & \xrightarrow{12 \text{ km}} & D_O & \xrightarrow{15 \text{ km}} & B_O \\ 15 & + & 36 & + & 30 & & = \text{Rs } 81 \\ @\text{Rs } 1/\text{km} & & @\text{Rs } 3/\text{km} & & @\text{Rs } 2/\text{km} & & \end{array}$$

13. b The shortest route can be found through iteration



In all it takes 82 kms of travelling (or) Rs. 82/-

For questions 14 to 17: The following values have been taken from the graphs for calculation

Year	1995	1996	1997	1998	1999	2000
Value (Rs Cr)	400	310	150	200	590	750
Quantity (Mn kg)	205	175	130	150	265	420

14. c Value per kilogram for:

$$1995 = \text{Rs. } 19.50 \quad 1996 = \text{Rs. } 17.71$$

$$1997 = \text{Rs. } 11.53 \quad 1999 = \text{Rs. } 22.26$$

Thus, it is the lowest for 1997.

15. c Increase in value of jute exports for

$$1996 = -22.5\% \quad 1998 = 33.3\%$$

$$1999 = 195\% \quad 2000 = 27.11\%$$

The graph shows that the steepest incline is from 1998 to 1999.

Hence, percentage change is maximum in 1999.

16. e Refer solution to question 14.

$$2000 = 17.85$$

$$1998 = 13.33$$

**Alternative method:**

$$\text{Average Price} = \frac{19.50 + 17.71 + 11.53 + 13.33 + 22.26 + 17.85}{6} = 17.75$$

17. b The price per kilogram has decreased in 1996, 1997 and 2000, has been worked out in questions 14 and 16.

**Alternative method:**

For 1995 cannot be determined, but otherwise growth is the highest in 1999 from 13.33 to 22.26.

18. e  $1.25 \times 10^{-3}$  times the world's fresh cut flower exports = Rs. 100 lakh

So the value of the world export of fresh cut flowers =  $\frac{100}{1.25 \times 10^{-3}}$  lakh;  $\frac{100 \times 10^3}{1.25} \times 10^4$  lakh

19. c 20% of 'Others' = 4% of world's export of cut flowers in 1990-91 = 17 lakh. So 4% of x = 17 lakh.

$$\Rightarrow x = \frac{17}{4} \times 100 = 4.25 \text{ crore}$$

20. e Netherlands may be exporting flowers other than cut flowers.

21. c Using statement I and II we can independently find out the unknown side of rectangle which comes out to be '6'. So perimeter can be calculated by making use of both statements independently.

22. b From statement I,  $a + b = 3k$  but nothing can be said about C. Therefore, statement I is not sufficient.

From statement II,  $c = 3p$

$$\Rightarrow 3(a + b) + c = 3(a + b) + 3p = 3(a + b + p) = 3q \Rightarrow 3(a + b) + c \text{ is divisible by 3.}$$

Hence, statement II alone is sufficient.

23. e The volume is unknown and the cost of each individual element except zinc is unknown. Cost of copper cannot be found.

**Alternative method:**

For 1995 cannot be determined, but otherwise growth is the highest in 1999 from 13.33 to 22.26.

18. e  $1.25 \times 10^{-3}$  times the world's fresh cut flower exports = Rs. 100 lakh

So the value of the world export of fresh cut flowers =  $\frac{100}{1.25 \times 10^{-3}}$  lakh;  $\frac{100 \times 10^3}{1.25} \text{ lakh} = 8 \times 10^4 \text{ lakh}$

19. c 20% of 'Others' = 4% of world's export of cut flowers in 1990-91 = 17 lakh. So 4% of x = 17 lakh.

$$\Rightarrow x = \frac{17}{4} \times 100 = 4.25 \text{ crore}$$

20. e Netherlands may be exporting flowers other than cut flowers.

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$$\Rightarrow 3(a + b) + c = 3(a + b) + 3p = 3(a + b + p) = 3q \Rightarrow 3(a + b) + c \text{ is divisible by 3.}$$

Hence, statement II alone is sufficient.

23. e The volume is unknown and the cost of each individual element except zinc is unknown. Cost of copper cannot be found.

24. d Statement I indicates the time taken by Ravi to eat 24 eggs. Statement II indicates the time taken by Harish to finish eating 24 eggs. Together they give the answer.

25. e From statement I, we get that there are balls of 2 colours. This gives the probability of selection of the ball of other colour as  $\frac{4}{11}$ . However, it has no information about the total number of balls.

From statement II, we do not get any information about the total number of balls.

**LRDI Practice Test - 7**

1. c Required percentage growth =  $(68718 - 42137) \times \frac{100}{42137}$

Students please note that to calculate the exact value of this expression, we need calculator. Since options given are not very close to each other, we can approximate the values.

And using approximations, we get the value of the required ratio =  $(68600 - 42000) \times \frac{100}{42000} = \frac{2650}{42} = 63\%$

2. c

Books	1975	1980	Percentage growth
Primary	42137	68718	66%
Secondary	8820	20177	128%
Higher secondary	65303	82175	26%
Graduate level	25343	36697	44%

Hence, percentage growth is least for higher secondary books, viz. 26%.

3. b Again referring to the above table, we can see that the percentage growth rate is maximum for secondary level books, viz. 125%.

4. d It can be seen from the given table that though primary level books have shown a consistent growth, it has declined in 1978. On the other hand, even secondary and higher secondary level books have shown a consistent increase except for 1977 when it had declined. But the graduate level books have shown a consistent growth over the period.

**For questions 5 to 8:** Let us refer these hawkers as J, R, S and P respectively in place of Jayram, Rajaram, Sitaram and Peariram. From information (II), we know that P is selling Chatpata. From information (I), we gather that R do not sell either Fruits or Plastic Toys. So R must be selling Newspapers. So J and S are selling Fruits and Plastic Toys, not in any particular order.

Regarding their revenue earned, we know that

$$J + R + S + P = 1200.$$

$$\text{But from information (IV), } S = 250.$$

$$\text{Therefore } J + R + P = 950, \text{ or } R + P = (950 - J) \dots(i)$$

From information (III), we can say that

$$\frac{R+P}{2} + 50 = J \dots(ii)$$

Solving (i) and (ii), we get that  $J = 350$  and  $(R + P) = 600$

From information (I), we know that  $R > 300$ . But if, say  $R = 301$ , then  $P = 299$ , which is greater than 250. But from information (II), P earned the minimum revenue. So, P should earn less than S (Rs. 250).

So, we can say that  $R > 350$  and  $P < 250$ . We can compile the following table with this derived conclusion.

Hawkers	Jayram	Rajaram	Sitaram	Peariram
Items	Fruits/ Plastic Toys	News papers	Fruits/ Plastic Toys	Chatpata
Revenue earned (Rs.)	350	>350	250	<250

5. b According to the question,  $S + P = R$ .

We know that  $S = 250$  and  $P = (600 - R)$

Solving we get,  $R = 425$ . Since Rajaram sold Newspapers, the answer is (b).

6. e We know that either J or S is the Fruit-seller. J sold items worth Rs. 350 and S sold items worth Rs. 250. If one orange was sold at Rs. 2.50 per piece, then either 140 or 100 oranges were sold on that day by one of these hawkers.

7. d The amount to be paid to the hooligans by J and S are Rs. 35 and Rs. 62.50 respectively. In order to maximise their total 'take-home' revenue, the amount to be paid by R and P should be considered. We can observe that P has to pay a lesser percentage as compared to R. So we maximise the revenue earned by P at Rs. 249, (corresponding revenue earned by R is Rs. 351), to get the minimum amount to be paid to the hooligans. We can compile the result in the following table.

Hawkers	Jayaram	Rajaram	Sitaram	Peararam	Total
Revenue earned (Rs.)	350	351	250	249	1200
Amount to be paid to the hooligans (Rs.)	35	70.2	62.5	37.35	205.05
'Take-home' revenue (Rs.)	315	280.8	187.5	211.65	994.95

So, (d) is the right answer.

8. c As integral number of Chatpatas' were sold so  $(600 - \text{Rajaram's salary})$  should be divisible by 7.

Option (c) i.e.  $(600 - 494) = \text{Rs.}106$  is not divisible by 7. So Rs.494 cannot be the revenue earned by Rajaram on that day.

9. b  $\frac{179-140}{6} = 6.5$  million tonnes (Approximately)

10. a In 1997, kharif crop production is  $\frac{110}{100} \times 99 = 108.9$  million tonnes

And rabi crop production in the same year is  $\frac{116}{100} \times 81 = 93.96$  million tonnes

$\therefore$  Total production increases by  $\frac{108.9 + 93.96 - 180}{180} \times 100 = 12.7\%$

11. c Given that 83% equals 110. So 100% should equal  $\frac{110}{83} \times 100 = 132.5$  million tonnes (Approx.)

So quantity of food grains India should have imported =  $132.5 - 110 = 22.5$  million tonnes (approximately)

**For questions 12 to 16:**

Ferrari was on the podium in  $\frac{2}{3}$ rd of the races i.e. 12 races.

Hence in  $(9 + 9) - 12 = 6$  races it held both the 1st and 3rd positions.

McLaren was on the podium in  $\frac{2}{3}$ rd of the races i.e. 12 races.

Hence since  $5 + 5 + 2 = 12$  in no race did it hold more than 1 position.

Renault was on the podium in  $\frac{2}{9}$ th of the races i.e. 4 races.

Hence it could have held the position (1, 3); (1, 3); (1); (3).

Based on this the following chart could be drawn:

Race	Ist	IIInd	IIIrd
18	R		R
17	R		R
16	R		M
15	Others		M
14	M		R
13	M		Others
12	M		F
11	M		F
10	M		F
9	F		F
8	F		F
7	F		F
6	F		F
5	F		F
4	F		F
3	F		M
2	F		M
1	F		M

The above chart represents one of the options in the races. Every other option would also satisfy the same condition.

Ferrari in the 2nd position can range anywhere from race 1 to race 12 but not beyond it (since Ferrari held the podium in only 12 races)

12. c From the table we can see that there would be 6 races when both Ferrari and McLaren would definitely be on the podium.

13. b Renault had podium positions in 4 races.

It won 6 podium positions.

Hence it is possible only in the following cases:

(1, 3), (1, 3), (1), (3). Hence the answer is (b).

14. c The maximum number of times when all the three on the podium can be from Ferrari is 6. For example, in all races from 4 to 9 the 2nd position is occupied by Ferrari.

The minimum could be 0, when Ferrari occupies 2nd position in races say 1 to 3 and 10 to 12.

15. c Total number of points obtained by Ferrari team =  $9 \times 10 + 6 \times 9 + 9 \times 8 = 216$

McLaren team =  $5 \times 10 + 2 \times 9 + 5 \times 8 = 108$

Renault team =  $3 \times 10 + 0 \times 9 + 3 \times 8 = 54$

Let's assume the remaining podium positions were won by a single team; Y, then

$$Y = [18 - (9 + 5 + 3)] \times 10 + [18 - (6 + 2 + 0)] \times 9 + [18 - (9 + 5 + 3)] \times 8 = 1 \times 10 + 10 \times 9 + 1 \times 8 = 108$$

∴ The minimum difference in points between the top two teams =  $216 - 108 = 108$

16. a From the table it can be seen that all the three can never be simultaneously on the podium.

**For questions 17 to 20:** Suppose that the selling price is Rs. 100.

17. a  $25\% \text{ (of } 30\% \text{ (of } 20\%) \text{) } = 1.5\%$ .

18. c 6 lacs = 0.6 million

19. a Appraisal cost = 6 million

= Product Testing cost = 3 million.

20. b Error cost =  $20\% \text{ of quality cost} = \frac{1}{5} \times \left( \frac{2}{9} \text{ of total cost} \right) = \frac{2}{45} = 4.44\% \text{ of total cost}$

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$\therefore$  The minimum difference in points between the top two teams = 216 - 108 = 108

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**For questions 17 to 20:** Suppose that the selling price is Rs. 100.

$$17. \text{a } 25\% \text{ (of } 30\% \text{ (of } 20\%) \text{)} = 1.5\%.$$

$$18. \text{c } 6 \text{ lacs} = 0.6 \text{ million}$$

$$19. \text{a Appraisal cost} = 6 \text{ million}$$

$$\Rightarrow \text{Product Testing cost} = 3 \text{ million.}$$

$$20. \text{b Error cost} = 20\% \text{ of quality cost} = \frac{1}{5} \times \left( \frac{2}{9} \text{ of total cost} \right) = \frac{2}{45} = 4.44\% \text{ of total cost}$$

21. c Statements I and II both individually give a relation between the capacities of water barrels A and B.

22. c From statement I, we easily get the answer.

Since we know both the distance and speed.

$$\text{From statement II, } x + 50 \rightarrow \frac{t}{2}$$

$$x \rightarrow t$$

$$xt = (x + 50) \frac{t}{2} = 45$$

$$\therefore xt = 45$$

$$\frac{45}{2} + 25t = 45$$

$$\therefore t = 54 \text{ min}$$

Thus, we can find time from statement II also independently. Thus, (b).

$$23. \text{e From statement I, } \frac{1}{A} + \frac{1}{C} = \frac{1}{8}$$

From statement II,  $\frac{1}{B} + \frac{1}{C} = \frac{1}{6}$ . Here we have two equations and three unknowns. Hence, we need one more equation.

24. a Statement I clearly shows that x is either zero or negative, i.e. not positive. We do not get any information from statement II. Thus, (a).

25. d From statement I, the SP of a pair can be obtained while the CP can be obtained from statement II.

**LRDI Practice Test - 8**

1. b The most obvious one is rank number 5. Since H has scored less than each of A, B, C and J in all the three sections, its total also has to be less than these four students. By the same reasoning, total marks of H have to be more than D, E, F, G and I. Thus H is ranked 5th.

D's is definitely more than the total of F and I (as D has scored more in each of the sections compared to these students). Also D cannot be less than G (worst case scenario for D, as compared to E, is Quant -5, EU +4 and DI +2). Similarly D cannot be less than E. Thus 6th rank will be D.

The other close option will be rank 10. However one cannot conclude that F will come last. E and F both could be tied for the rank 9 or 10. Consider worst case scenario for E and best case scenario for F. Thus E will score 8 more than F in EU and 2 more than F in DI. But F can make up for this difference by scoring 10 more than E in quant. Thus for rank 10, one cannot identify the student.

Among, A, B, C and J, J could be at any of the ranks 1 to 4 i.e. J could be greater or less than each of A, B and C. Hence one cannot identify who ranks 1 to 4.

By same logic between E, F, G and I, student E could be at any position from rank 7 to 10. Thus the student at rank 7 to 10 also cannot be identified.

2. a The minimum difference between marks scored by F and C in quant can be 10 and this will happen only when the difference between consecutively ranked students (F & D; D & G; G & H; H & B; B & C) is 2.

3. e The minimum marks that A can score is 19 in Quant, 20 in EU and 22 in DI i.e. a total of 61. The maximum marks that A can score is 25 in Quant, 23 in EU and 25 in DI i.e. a total of 73. Thus the required difference is 12 marks.

4. e As explained in answer explanation to first question of this set, the student at rank number 7 cannot be found as E could be ranked anything from 7 to 10.

5. a The total sales over the period shown for different manufactures are given as follows:

(a) For A =  $440 + 480 + 470 + 500 + 520 + 510 = 2920 \times 1000$  units

(b) For B =  $400 + 410 + 415 + 415 + 420 + 430 = 2490 \times 1000$  units

(c) For C =  $380 + 390 + 390 + 400 + 420 + 495 = 2475 \times 1000$  units

(d) For D =  $360 + 380 + 400 + 415 + 440 + 500 = 2495 \times 1000$  units

(e) For E =  $480 + 440 + 440 + 420 + 425 + 435 = 2640 \times 1000$  units

Thus, the sales of the manufacturer A is the highest.

**Alternative method:**

'A' sales has been more than all other manufacturer in all the years except 1995.

6. d Required share =  $\left( \frac{410}{480 + 410 + 390 + 380 + 440} \right) \times 100 \approx 19.5\%$

(Observe that the sum total of the numbers in the denominator would be higher than 'five times 410' and hence, the required percentage would be a little less than 20%).

7. c It can be easily observed that, since the difference is the highest in case of manufacturer C, the largest percentage growth would naturally occur for him, as the base is the smallest.

8. e Required ratio =  $(400 \div 500) = 0.8$

9. d The figure for the highest sales of scooters over the period shown is 520 units which occurs in 1999 in case of the manufacturer A.

**For questions 10 to 12:**

Only those cities that have three roads emanating from them can be start/end city.

10. b

11. b Three routes starting from 2 and 4 each.

12. e

13. c Total number of line employees with 3 to 5 years of employment = 140

Out of the above, the number that attended training on financial management = 80

∴ The number of line employees with 3 to 5 years employment who did not attend training on financial management is  $(140 - 80)$ , i.e. 60.

14. b Number of employees with less than 3 years of employment who attended training on decision-making alone

$$= (40 - 10) + (30 - 15) = 45$$

Similarly, the number of employees with less than 3 years of employment who attended training on financial management alone  $= (30 - 10) + (20 - 15) = 25$

$$\text{Answer} = 45 + 25 = 70.$$

15. a Number of line employees with more than 5 years of employment who attended at least one programme

$$= 50 + 40 - 30 = 60$$

Number of staff employees with more than 5 years of employment who attended at least one programme

$$= 40 + 50 - 20 = 70$$

Total number of employees with more than 5 years of employment who attended at least one programme

$$= 60 + 70 = 130$$

Percentage of employment with more than 5 years of employment who did not attend either workshop

$$= \frac{(200 + 160) - 130}{200 + 160} \times 100 = \frac{230}{360} \times 100 = 64$$

$$16. e (50 + 40) + (40 + 50) - (30 + 20) = 130$$

17. d Middle management use highest percentage of spread sheet, which is 53 out of 150  
 $= \frac{53}{150} \times 100 = 35.3\%$

$$18. e 202$$

19. b Top management have second highest proficiency in spread sheet. Just check the second highest value from the four of those given in the table.

$$20. a 42 + 23 = 65$$

21. d From statement (A), he cannot watch a news channel at night.

From statement (B), he can watch an entertainment channel only in the evening and night (combining with statement A).

Also note, he watches only one type of channel in each of 4 parts of the day.

22. b Statement (A) is irrelevant. It only says Pakistan is the eventual winner. But nothing is said about points.

Statement (B), explains the point system.

Based on this, the maximum points possible to be scored by the winning team is  $(3 \times 3$  matches) = 9 points.

So combining we can say the order has to be C, A, B.

23. b Statement (A) indicates that the chief guest spoke longer than 25 min but does not say how much longer than 25 min. So statement (B) indicates that the chief guest spoke for lesser than 35 min.

Hence, we can infer from statement (B) alone that the chief guest did not speak for more than 45 min.

24. e It is not possible to answer the question. Although (c) might seem to be a tempting offer, it is not, because we do not know whether Rashmi will go shopping if Ranjana goes.

25. d Both the statements are required, since from the statement (A), we get

$$A > \frac{A+B+C}{3} \text{ or } 3A > A+B+C \text{ or } A > \frac{B+C}{2}$$

From the statement (B), we get

$$B > \frac{A+B}{2} \text{ or } 2B > A + B \text{ or } B > A$$

Combining both the statements, we get

$$\frac{B+C}{2} < A < B$$

$$\text{or } B+C < 2B \text{ or } B > C$$

$\therefore$  'B' weighs most.

Alternately: Statement (A) says there has to be at least one of B or C or both B and C less than A.

Statement (B) says B is more than A.

**LRDI Practice Test - 9**

1. b  $\frac{79.37 - 68.75}{68.75} = \frac{80 - 70}{70} = \frac{1}{7} = 14.28\%$

2. e Demand =  $1.15 \times 102 = 117$  MMT

Gap =  $117 - 98 = 19$  MMT

3. e It can be checked by multiplying the All India supply figures by 0.3 and comparing it with southern India supply figures. No year satisfies that.

4. b Supply =  $22 \times 1.3 = 28.6$  MMT

Demand =  $28 \times 1.4 = 39.2$  MMT

Deficit =  $10.6$  MMT

**For questions 5 to 8:**

Each of the participants received at least one vote in round 1. If the minimum number of votes received is 2, then 4 of the 11 votes are accounted for, since two of the contestants were tied for the last place in Round 1. Payal has received 4 votes. Taking these votes into consideration, 8 votes are accounted for. The remaining 3 votes can be divided among the other two participants as either (3 + 0) or (2 + 1), both of which are not possible. (3 + 0) is not possible because each participant has received at least 1 vote and (2 + 1) is not possible because we have considered the lowest number of votes as 2.

If the minimum number of votes received by two participants is 3 each, then including Payal's 4 votes, 10 out of 11 votes would have been accounted for and therefore the remaining two participants cannot receive at least 1 vote each.

Therefore, the only possible combination is when two participants receive 1 vote each (the minimum), Payal receives 4 votes while the other 2 participants receive 3 and 2 votes

respectively.

Further, one of the participants has received 'o' votes in round 2.

- That participant cannot be Priti because she has received 1 vote in round 2.
- That participant cannot be Priyanka because Mr. Biyani has voted for her in round 2.
- That participant cannot be Payal because the judge who voted for Poonam in round 1 voted for her in round 2
- That participant cannot be Pooja because 50% of the judges who voted for Payal in round 1 voted for Pooja in round 2.
- Therefore, it is Poonam who got 'o' votes in round 2.

Further, it is given that the judge who voted for Poonam in round 1 voted for Payal in round 2. Therefore, Poonam would have got 1 vote in round 1. Also, Payal would have got 3 votes in round 2. (50% of votes from earlier round and 1 vote of the judge who voted for Poonam in round 1).

The remaining 8 votes were divided between Pooja and Priyanka. For this to be possible and Priyanka to be joint second with another person, the only possible combination in round 2 can be:

Priti : 1 vote, Payal : 3 votes, Priyanka : 3 votes, Pooja : 5 votes

From condition II, Pooja got 2 additional votes in round 2. Therefore Pooja would have got 3 votes in round 1. Priyanka got 1 additional vote of Mr. Biyani in round 2 and ended with 3 votes. Therefore Priyanka would have got 2 votes in round 1.

The number of votes received after the first 2 rounds were as follows:

	Pooja	Payal	Priti	Priyanka	Poonam
	B'lore	Delhi	B'lore		
Round 1	3	4	1	2	1
Round 2	5	3	1	3	0

Since Poonam was did not contest in round 3, Priyanka must be the other girl from Delhi. Further, the total number of votes in Round 3 is 13. (Poonam will also vote). From condition IV, the total votes won by Pooja and Priti (two girls from Bangalore) will be 7 while Payal and Priyanka (two girls from Delhi) together secured 6 votes in Round 3.

5. b If Priyanka received 2 votes in round 3, then Payal would have received 4 votes in round 3, because both of them together received 6 votes in round 3.

6. e Pooja was the person with the highest votes at the end of round 2.

7. d If Priti received 3 votes in round 3 and Payal received 50% of the remaining votes which is 5, then Pooja received 4 votes in round 3 while Priyanka received 1 vote in round 3. Therefore, option (d) is definitely true i.e. Priyanka received the minimum number of votes in round 3.

8. d Priti and Poonam are the 2 contestants who received the minimum number of votes (1 each) in round 1.

#### For questions 9 to 11:

Iqbal is watched by Bimal only. Beckham watches 3 movies — Hence, does not watch Iqbal which is screened at plaza.

Movie			Salaam Namaste	Iqbal
Movie Hall	Satyam	Chanakya	Priya	Plaza
Bunty	✓	✓	✗	✗
Babli	✓	✓	✗	✗
Bonny	✓ / ✗	✓ / ✗	✓ / ✗	✗
Bimal	✓	✓	✓	✓
Beckham	✓	✓	✓	✗

9. c 10. e 11. e

12. a Net revenue by the sale of scooters =  $\frac{48}{100} \times 23784.1 = 11416.368$  million

Number of scooter units sold =  $\frac{60}{100} \times 1307211 = 784326.6$

Revenue per scooter =  $\frac{11416.37 \times 10^6}{784326.6}$  = Rs. 14,555.63 ≈ Rs. 14,500.

**Alternative method:** Net income of scooters =  $24000 \times \frac{50}{100} \sim 12000$

but it has to be less than 12,000, because both the approximate values are higher. So let us take

11,500 million.

Total scooters sold =  $1300000 \times \frac{60}{100} = 780000$

Net realisation =  $\frac{11500 \times 10^6}{780000} \sim 14500$

13. a Take total sales volume as 100, then motorcycle sales volume = 22

25% increase =  $(25 \times 22) \div 100 = 5.5$

This 5.5 is the decrease in scooter sales volume

= Percentage decrease in sales volume =  $(5.5 \times 100) / 60 = 9.1\%$

14. d If others is excluded, then of a total of 100, net revenue left = 89

Of this, 3 is from mopeds

Hence, percentage of mopeds =  $\frac{3}{89} \times 100 = 3.4\%$  approximately

15. c Net profit =  $\left[ \frac{20}{100} \left( \frac{48+17}{100} \right) + \frac{25}{100} \left( \frac{21+3}{100} \right) \right] \times 23784.1 \text{ million} = (0.13 + 0.06) \times 23,784.1 = \text{Rs. } 4,500 \text{ million}$

16. a Net revenue per vehicle would be the highest for three-wheelers. (The ratio of percentage revenue and percentage volume sales is greater than 1, only for three-wheelers.)

**For questions 17 to 20:** From the data that is given, we can find the following data (the explanation of how the following values were arrived at is given after the table):

Item	1999-2000	2000-01
Food (percentage)	22%	23%
Food (value)	4928	5934
Manufactured articles	11648	11352
Raw material	5824	8514
Total value of exports Rs. in crore	22400	25800

17. d Food related exports in 2000-01 =  $0.23 \times 25800 = 5934$

So food related exports in 1999-00 =  $(5934 - 4928) = 1006$

Hence, percentage of food related exports in 1999-2000 =  $\left( \frac{4928}{22400} \right) \times 100 = 22$

18. b In 1999-2000, the value of manufactured articles and raw materials export

= Rs.  $(22400 - 4928) = \text{Rs. } 17472 \text{ crore}$

Since export in manufactured goods is twice that of raw materials, Rs. 17,472 has to be divided in the ratio 2 : 1, viz. export of manufactured goods = Rs. 11,648 crore and raw materials = Rs. 5,824 crore.

Hence, the difference between raw materials and food = Rs.  $(5824 - 4928) \text{ crore} = \text{Rs. } 896 \text{ crore}$ .

19. d In 2000-01, the combined percentage of manufactured articles and raw materials = 77 and this is in the ratio 4 : 3.

Hence, percentage of manufactured articles export = 44% and that of raw materials export = 33%

Hence, the value of manufactured =  $0.44 \times 25800 = \text{Rs. } 11352 \text{ crore}$  and the value of raw materials

= Rs. 8514 crore.

Hence, percentage of difference between the value of raw materials in-between 1999-2000 and

$$2000-01 = \frac{(8514 - 5824)}{8514} \times 100\% = 31.6\%$$

20. a The change in the value of exports from 1999-2000 to 2000-01 = Rs.  $(11648 - 11352) \text{ crore} = \text{Rs. } 296 \text{ crore}$ .

21. e Combining (I) and (II):

The only information we have is about the sitting positions of the highest and the lowest aged persons. Nothing can be said about the occupation of chairs 2, 3 and 4. Hence, we cannot find the age of C.

22. a Statement (I) alone:

A → Q

Since export in manufactured goods is twice that of raw materials, Rs. 17,472 has to be divided in the ratio 2 : 1, viz. export of manufactured goods = Rs. 11,648 crore and raw materials = Rs. 5,824 crore.

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21. e Combining (I) and (II):

The only information we have is about the sitting positions of the highest and the lowest aged persons. Nothing can be said about the occupation of chairs 2, 3 and 4. Hence, we cannot find the age of C.

22. a Statement (I) alone:

A → Q

C → S

B →

E →

D → T

B does not visit T, and E obviously cannot visit T.

So D will surely visit city T.

23. e Statement A is not sufficient to answer the given question. Statement B indicates the days on which the club needs to be run but no information is provided regarding saturday and sunday.

24. e Statement A gives the number of users in December but does not indicate the volume. Statement B indicates some idea on the volume reduction and the number of maximum users. But, even together, they do not give any answer to the volume of water in the pool in the particular month of December.

25. a From statement A,



∴ Obviously, Rahul is older than Gaurav by 2 years.

Statement B does not give any information.

**LRDI Practice Test - 10**

1. a Interest earned =  $7201 - 12 \times 5 \times 100 = \text{Rs. } 1,201$

2. d  $\frac{\text{Interest on 10 year}}{\text{Interest on 5 year}} = \frac{17409 - 12000}{7201 - 6000} = \frac{5409}{1201} \approx 9 : 2$

3. b Interest on 250 monthly investment for 20 year =  $130991 - (12 \times 20 \times 250) = \text{Rs. } 70,991$

Interest on 500 monthly investment for 10 year =  $87047 - 60000 = \text{Rs. } 27,047$

How much less would be earned =  $70991 - 27047 = \text{Rs. } 43,944$

**Alternative method:**

The total amount invested in both the cases will be same as half the amount is paid for twice the time. Thus difference in earnings will be the difference in amounts, i.e.  $130991 - 87047 = \text{Rs. } 43,944$

4. b Very clearly the growth has been minimum in

$$\frac{1993-94}{73} = 2.74\%$$

5. b Profit of banks in 1991-92 = 3% of 630 = 18.9

Profit of mutual fund in 1992-93 = 5% of 710 = 35.5

Difference = 16.6

6. d Profit to sales is maximum in 1994-95. It is 10%, otherwise in all the year, it is less than that.

**For questions 7 to 10:** The following table can be drawn as per the information given.

	P	Q	R	S	T
		4			2
A	✓		✓	✓	
B	✓			✓	
C	1				
D			✓	✓	
E			✓	✓	✓

Since S cannot be supplied by 4 vendors (Q is being supplied by 4 vendors and each component is supplied by different number of vendors), hence S has to be supplied by all 5. Thus C who supplies just 1 component, supplies S. Further since Q is supplied by 4 vendors, A and B have to supply it as well. Thus table now looks like:

	P	Q	R	S	T
	(2+)	4		5	2
A	✓	✓	✓	✓	
B	✓	✓		✓	
C	1	✗	✗	✗	✗
D			✓	✓	
E			✓	✓	✓

Since P is supplied by at least 2, R has to be supplied by just 1 vendor and P has to be supplied by 3 vendors. Nothing row wise, D is the only vendor who can supply 2 parts (as all other supply more than 2). Thus table now looks as:

	P	Q	R	S	T
	3	4	1	5	2
A	✓	✓	✓	✓	
B	✓	✓	✗	✓	
C	1	✗	✗	✗	✗
D	2	✗	✓	✗	✓
E			✓	✗	✓

Now it is obvious that P is supplied by E and thus E supplies 4 components. Only A can supply all 5 components and hence, B supplies 3. Thus final table is:

	P	Q	R	S	T
	3	4	1	5	2
A	5	✓	✓	✓	✓
B	3	✓	✓	✗	✓
C	1	✗	✗	✗	✓
D	2	✗	✓	✗	✓
E	4	✓	✓	✗	✓

Therefore, 7. a 8. c 9. d 10. a

### For questions 11 and 12:

11. b Given: B > L ... (i)

To be concluded: I > R

In option (a), B > I and L > R. Combining it with (i), B > L > R and B > I. Therefore, conclusion cannot be confirmed for sure.

In option (b), B < I and L > R. Combining it with (i), I > B > L > R. Therefore, conclusion has been confirmed.

In option (c), B > I and L < R. Even if we combine it with (i), our conclusion cannot be confirmed.

In option (d), B < I and L < R.

Combining it with (i), L < B < I and L < R.

Therefore, conclusion cannot be confirmed.

12. b Here,  $x^2 > x$

$$\Rightarrow x^2 - x > 0$$

$$\Rightarrow x(x - 1) > 0$$

$$\Rightarrow \text{either } x > 1 \text{ or } x < 0$$

Our conclusion, which states that  $x < 0$  would be true only when we come to know that other possibility, i.e.  $x > 1$  is not the case.

For that matter, if we know that  $x$  is a real number less than 1, we can say that  $x$  is not greater than 1 and hence,  $x < 0$ . So option (b) would be the correct choice.

$$13. b \frac{3.42}{16.9+2.9} - \frac{0.59}{3.1+1.4} \approx 0.17 - 0.13 = 0.04$$

$$1973-74 = \frac{4.22}{23.4} - \frac{0.73}{6.1} \approx 0.18 - 0.12 = 0.06$$

$$1974-75 = \frac{5.2}{27.1} - \frac{0.78}{7.2} \approx 0.19 - 0.11 = 0.08$$

$$1975-76 = \frac{5.49}{28} - \frac{0.84}{7.1} \approx 0.19 - 0.12 = 0.07$$

So, it is highest in 1974-75.

14. c Or ratio of gross cropped area to consumption of fertilizers should be highest

$$1970-71 = \frac{174.8}{1.11+3.42+0.59} = \frac{174.8}{5.12}$$

$$1971-72 = \frac{173.1}{5.51}; 1972-73 = \frac{177}{6.06}$$

$$1974-75 = \frac{180.4}{7.71}; 1975-76 = \frac{187.8}{8.22}$$

So, obviously, 1970-71 is answer.

$$15. e \text{ In } 1972-73 = 23.20 + 32.77 = 55.97$$

$$\text{In } 1973-74 = 24.00 + 34.20 = 58.20$$

More = 2.23 (Remember these figures are cumulative figures)

16. c If you look at the trend, area under irrigation has been increasing over the year in minor as well as major. Only in 1974-75, in case of minor, it has decreased which suggests that some minor area has come under major.

**For questions 17 to 20:** Australia won all 5 and Holland lost all 5. For India or Germany, 7 points can be scored as {W, W, D, L, L} or {W, D, D, D, D}. But since Australia defeated both of them, the only possibility is {W, W, D, L, L}.

For Pakistan also, there has to be at least one W and at least one L

= Possibility = {W, D, L, L, L}

Total W = Total L

= South Korea won 3 matches and lost one.

Table is:

	P	W	L	D	Points
India (Ind)	5	2	2	1	7
Germany (Ger)	5	2	2	1	7
Australia (Aus)	5	5	0	0	15
Holland (Holl)	5	0	5	0	0
South Korea (SK)	5	3	1	1	10
Pakistan (Pak)	5	1	3	1	4

	Win	Loss	Draw
Aus	✓	✗	✗
Holl	✗	✓	✗
Pak	Holl	Ind + SK + Aus	Ger
SK	Holl + Pak + Ger	Aus	Ind
Ger	Ind + Holl	SK + Aus	Pak
Ind	Pak + Holl	Ger + Aus	SK

The matches between India and Germany as well as South Korea and Germany did not end in a draw. Hence, Pakistan and Germany match must have been a draw.

= India defeated Holland and Pakistan only.

17. b The result between India and Germany must be a win in favour of Germany.

18. a 10

19. e  $7 + 7 + 15 + 10 + 4 = 43$

20. c There were 2 matches which ended in a draw in the whole tournament.

21. c Statement A indicates Bunty gets the middle most sequence. Statement B indicates Bunty is the last one in sequence.

Hence each statement individually is sufficient.

22. d Statement A gives the number of hours Mr. Sharma walks on weekdays and Statement B indicates the number of hours he walks on Sunday.

23. d From statement (A),

since 'D' always lies,  $B > W$ .

From statement (B),

since 'c' always speaks truth,  $c = \text{White hat}$ .

∴ From statements (A) and (B), 'A' and 'B' have to wear black hats.

Persons	A	B	C	D
Hat	B	B	W	W

24. e Both the statements are not sufficient since 'A', 'B', 'C' positions can be any of these.

The matches between India and Germany as well as South Korea and Germany did not end in a draw. Hence, Pakistan and Germany match must have been a draw.

= India defeated Holland and Pakistan only.

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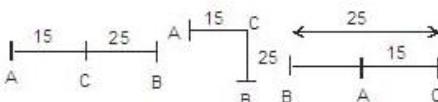
From statement (B),

since 'c' always speak truth,  $c = \text{White hat}$ .

$\therefore$  From statements (A) and (B), 'A' and 'B' have to wear black hats.

Persons	A	B	C	D
Hat	B	B	W	W

24. e Both the statements are not sufficient since 'A', 'B', 'C' positions can be any of these.



And many such positions are possible.

25. d Both the statements together give the length XY = 10 cm.

**LRDI Practice Test - 11**

**For questions 1 to 5:** It is given that each member represents one of the five schools. Hence, the only logic which needs to be understood is that if a particular school has won 1 red medal, the individual member winning 2 red medals cannot belong to that school. On this inference, it could be seen that Qadir, Rishi and Yousuf have 2 red medals each. Thus, they cannot be from Lucknow school or Ahmedabad school, because their respective cumulative red medal count is less than 2. On a similar reasoning, we can limit the possibilities

The following table illustrate the possible linkage between the individual and the schools the represent.

Members	Medals				Possible School				
	Red	Blue	White	Green	Delhi	Indore	Lucknow	Kolkata	Ahmedabad
Puneet	1	1	1	1					x
Qadir	2	0	0	1			x		x
Rishi	2	0	0	0			x		x
Satyam	0	1	3	0			x	x	x
Tarun	0	1	1	2	x		x		
Umesh	0	1	2	2	x		x	x	
Vipul	0	1	0	1					
Wasim	0	0	2	1			x		
Xavier	0	2	1	0		x		x	x
Yousuf	2	0	1	0			x		x
Zaheer	1	1	1	0					x

Till here, it can be seen that Satyam could be from Delhi school or Indore school. Let us assume that Satyam is from Indore school. Thus, his blue and white medals account for the entire tally of blue (1) and white (3) medals of Indore school. The remaining 2 Green and 2 Red medals of Indore school must have been won by other member(s) representing Indore school. These other member(s) surely cannot win any Blue or White medal.

For any other member of Indore school, blue and white medal count should be 0 (only Qadir and Rishi). But even both of them combined cannot equal the green medal count of Indore school. Hence, this case is not possible and our assumption that Satyam is from Indore school is wrong. Therefore, Satyam must be from Delhi school.

Putting Satyam to Delhi school, the remaining medal tally of all the schools is as follows

Schools	Medals			
	Red	Blue	White	Green
Delhi School*	3	1	1	1
Indore School	2	1	3	2
Lucknow School	1	3	2	1
Kolkata School	2	1	1	2
Ahmedabad School	0	1	2	2

\*(without the medals won by Satyam)

Now Xavier, who has won 2 blue medals, must be from Lucknow school. The remaining medal tally is

Schools	Medals			
	Red	Blue	White	Green
Delhi School	3	1	1	1
Indore School	2	1	3	2
Lucknow School*	1	1	1	1
Kolkata School	2	1	1	2
Ahmedabad School	0	1	2	2

\*(without the medal won by Xavier)

Now, Lucknow's one remaining red medal could come from Puneet or Zaheer. But Zaheer has won 1 each of red, blue and white medals and hasn't won any green medal. If Zaheer is from Lucknow school, it won't get just one green medal from some other member, because none of the members has won just one Green medal.

Hence, Puneet is from Lucknow school. This completes the member list of Lucknow school.

The remaining medal tally:

Schools	Medals			
	Red	Blue	White	Green
Delhi School	3	1	1	1
Indore School	2	1	3	2
Lucknow School*	0	0	0	0
Kolkata School	2	1	1	2
Ahmedabad School	0	1	2	2

\*(without medal won by Xavier & Puneet)

Delhi school, which has got 3 red medals, must have got 1 red medal from a member and 2 red medals from another member. Only remaining member having 1 red medal is Zaheer. He must be from Delhi school. Remaining medal tally:

Schools	Medals			
	Red	Blue	White	Green
Delhi School*	2	0	0	1
Indore School	2	1	3	2
Lucknow School	0	0	0	0
Kolkata School	2	1	1	2
Ahmedabad School	0	1	2	2

\*(without medal won by Satyam & Zaheer)

Eliminating the ones whose schools have been confirmed and forming the table once again,

Members	Medals				Possible School				
	Red	Blue	White	Green	Delhi	Indore	Lucknow	Kolkata	Ahmedabad
Qadir	2	0	0	1			x		x
Rishi	2	0	0	0			x		x
Tarun	0	1	1	2	x		x		
Umesh	0	1	2	2	x		x	x	
Vipul	0	1	0	1			x		
Wasim	0	0	2	1			x	x	
Yousuf	2	0	1	0			x		x

Only Qadir or Rishi could be from Delhi school, because remaining blue and white medals for Delhi are 0. If Rishi is from Delhi school, one remaining green medal for this school would not be possible. Hence, Qadir is from Delhi school. This completes the member list for Delhi school also.

The possible schools for the remaining members would further reduce:

Schools	Medals			
	Red	Blue	White	Green
Delhi School	0	0	0	0
Indore School	2	1	3	2
Lucknow School	0	0	0	0
Kolkata School	2	1	1	2
Ahmedabad School	0	1	2	2

Members	Medals				Possible School				
	Red	Blue	White	Green	Delhi	Indore	Lucknow	Kolkata	Ahmedabad
Rishi	2	0	0	0	x		x		x
Tarun	0	1	1	2	x		x		
Umesh	0	1	2	2	x		x	x	
Vipul	0	1	0	1	x		x		
Wasim	0	0	2	1	x		x	x	
Yousuf	2	0	1	0	x		x		x

If Tarun is from Indore school, remaining red and white medal tally for Indore school is 2,2 respectively. It could be seen that none of the remaining members have such a medal count. Even after combining the medal tally of two or more students, Red-White 2-2, combination cannot be formed. Hence, Tarun is not from Indore school. Tarun is not from Ahmedabad School either, because in that case only single White medal remains for Ahmedabad School, which is not available to any Student. Instead, he is from Kolkata school. Other member from Kolkata school could be Rishi only. This makes Yousuf a member of Indore school, because he is the only one remaining with 2 red medals.

The possible schools for the remaining members would further reduce as follows:

Schools	Medals			
	Red	Blue	White	Green
Delhi School	0	0	0	0
Indore School	0	1	2	2
Lucknow School	0	0	0	0
Kolkata School	0	0	0	0
Ahmedabad School	0	1	2	2

Members	Medals				Possible School				
	Red	Blue	White	Green	Delhi	Indore	Lucknow	Kolkata	Ahmedabad
Umesh	0	1	2	2	x		x	x	
Vipul	0	1	0	1	x		x	x	
Wasim	0	0	2	1	x		x	x	

The remaining medal tally of Indore school and Ahmedabad school are identical. Also, the total medals of Vipul and Wasim are identical to those of Umesh alone. Therefore, either Umesh is from Ahmedabad school and (Vipul + Wasim) are from Indore school or vice-versa.

In summary,

Delhi School	Satyam, Zaheer, Qadir
Indore School	Yousuf, (Vipul+Wasim)/Umesh
Lucknow School	Xavier, Puneet
Kolkata School	Tarun, Rishi
Ahmedabad School	Umesh/(Vipul+Wasim)

1. d Option (a) is necessarily correct. Option (b) is also necessarily correct. Option (c) is necessarily incorrect.

Option (d) could be correct, if Vipul and Wasim are the members of Indore school. Option (e) is necessarily correct.

2. e Either Indore or Ahmedabad. Hence, cannot be determined

3. b Three representative members.

4. a Among the options, only Puneet is from Lucknow school

5. e Option (a) is inconsistent because Satyam is not representing Indore school.

Option (b) is redundant because it is already known that Vipul and Wasim are fellows.

Option (c) is consistent, but doesn't give any data which could tell us the schools of Umesh, Vipul and Wasim.

Option (d) is also consistent, but not sufficient.

Option (e) clearly tells that 3 members represented Indore school. This implies that Umesh is a member of Ahmedabad school and (Vipul+Wasim) are members of Indore school.

**For Questions 6 to 10:** Aggregate number of cars manufactured by all the companies across the twelve months of a year = 1200.

Since aggregate number of cars manufactured by all the companies is same in each month, therefore number of cars manufactured in each month =  $\frac{1200}{12} = 100$ .

In January, Mitsubishi manufactured 7 cars and Renault manufactured 37 cars. The 6 remaining companies have to manufacture at least  $7 + 2 = 9$  cars. But total cars in January = 100.

Hence out of those 6 remaining companies, minimum cars any company could manufacture = 9 and maximum cars any company could manufacture = 11.

Similarly, with the help of the given information, we can find the range of the number of cars manufactured by each of the companies in the 12 months.

	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec
<b>Mercedes</b>	9-11	7-26	32	8-19	27	7-20	8-23	10-18	7-23	3	10-11	10
<b>Mazda</b>	9-11	7-26	9-16	8-19	6-22	7-20	8-23	10-18	5	5-33	10-11	32
<b>Nissan</b>	9-11	7-26	9-16	8-19	4	40	8-23	10-18	28	5-33	8	10
<b>Mitsubishi</b>	7	7-26	9-16	8-19	6-22	7-20	8-23	10-18	7-23	38	10-11	10
<b>Porsche</b>	9-11	7-26	9-16	8-19	6-22	5	31	8	7-23	5-33	31	10
<b>Ferrari</b>	9-11	7-26	9-16	35	6-22	7-20	8-23	24	7-23	5-33	10-11	8
<b>Renault</b>	37	5	9-16	6	6-22	7-20	8-23	10-18	7-23	5-33	10-11	10
<b>Honda</b>	9-11	34	7	8-19	6-22	7-20	6	10-18	7-23	5-33	10-11	10
<b>Total</b>	100	100	100	100	100	100	100	100	100	100	100	100

The maximum and minimum number of cars manufactured by different brands alongwith their optimum index (O.I.) and average index (A. I.) is collated in the following table.

	Mercedes	Mazda	Nissan	Mitsubishi	Porsche	Ferrari	Renault	Honda
Maximum	223	236	236	233	235	252	224	214
Minimum	138	116	146	127	136	135	120	119
Sum	361	352	382	360	371	387	344	333
O.I.	85	120	90	106	99	117	104	95
A.I.	180.5	176	191	180	185.5	193.5	172	166.5
Ratio (O.I./A.I.)	0.470	0.68	0.471	0.588	0.53	0.60	0.604	0.57

6. c Maximum possible number of cars manufactured by Mitsubishi across all the 12 months

$$= (7 + 26 + 16 + 19 + 22 + 20 + 23 + 18 + 23 + 38 + 11 + 10) = 233.$$

7. e Mazda is the company for which the Optimum Index is highest.

8. c Statement B and D are incorrect.

9. d The ratio of O.I. to A.I. is least for Mercedes.

10. c The minimum number of cars that a company possibly manufactured throughout the year is second largest for Mercedes.

#### For questions 11 to 15:

11. c **Sunday:**  $131 = 25 \times 5 + 2 \times 3$ .

Minimum possible number of students who logged into the website = 27.

**Monday:**  $49 = 9 \times 5 + 1 \times 4$ .

Minimum possible number of students who logged into the website = 10.

**Tuesday:**  $92 = 18 \times 5 + 1 \times 2$ .

Minimum possible number of students who logged into the website = 19.

**Wednesday:**  $157 = 31 \times 5 + 1 \times 2$ .

Minimum possible number of students who logged into the website = 32.

**Thursday:**  $105 = 21 \times 5$ .

Minimum possible number of students who logged into the website = 21.

**Friday:**  $81 = 15 \times 5 + 1 \times 4 + 1 \times 2$ .

Minimum possible number of students who logged into the website = 17.

**Saturday:**  $63 = 12 \times 5 + 1 \times 3$ .

Minimum possible number of students who logged into the website = 13.

Therefore during this particular week the minimum possible number of students who logged into the website

$$= 27 + 10 + 19 + 32 + 21 + 17 + 13 = 139.$$

12. b Maximum number of students who logged into the SIS on Sunday =  $(64 \times 2 + 1 \times 3) = 65$

Similarly, maximum number of students who logged into the SIS on Monday, Tuesday, Wednesday, Thursday, Friday and Saturday is 24, 46, 78, 52, 40 and 31 respectively.

Required difference between the maximum and the minimum possible number of students who logged into the SIS on Sunday, Monday, Tuesday, Wednesday, Thursday, Friday and Saturday is 38, 13, 27, 46, 31, 23 and 18 respectively.

Therefore, on 4 days the required difference is not less than 27.

13. a Total number of hits on the SIS on Sunday is 131 and total number of students who logged into the SIS on Sunday is 49.

To maximize the number of New Users who logged into the SIS exactly two times we need to minimize the aggregate number of New Users who logged into the SIS at least three

times.

Minimum number of New Users who logged into the SIS at least three times is when 11 New Users logged into the SIS exactly five times.

Maximum number of New Users who logged into the SIS exactly two times =  $49 - 11 = 38$ .

Total number of hits on the SIS on Thursday is 105 and total number of students who logged into the SIS on Thursday is 52.

So a maximum of 52 New Users can possibly log into the SIS exactly two times on Thursday, this is possible when only one new User logged into the SIS exactly thrice on Thursday.

$$\text{Required answer} = 38 + 51 = 89.$$

14. d Since on Sunday and Thursday no Old User logged into the SIS, total number of students that logged into the SIS on the remaining five days of the week is  $19 + 33 + 61 + 37 + 25 = 175$ .

So to minimize the number of New Users that logged into the SIS, we need to maximize the number of Old Users who logged into the SIS on exactly three days.

$$175 = 57 \times 3 + 2 \times 2$$

Therefore at least 59 Old Users.

15. b  $175 = 86 \times 2 + 1 \times 3$ . Maximum possible number of Old Users that logged into the SIS is 87.

Therefore, number of Old Users that logged into the SIS lies between 59 and 87 (both inclusive).

**For questions 16 to 20:**

Let a, b, c, d, e, f, g, h, i and j be the number of questions in sections I, II, III, IV, V, VI, VII, VIII, IX and X respectively.

From the data given in TABLE 1, we can draw the following conclusions:

$$\frac{a+b}{2} = 28, \frac{a+c}{2} = 21, \frac{b+c}{2} = 28, \frac{a+d}{2} = 26, \frac{a+e}{2} = 24$$

$$\frac{a+f}{2} = 35, \frac{a+g}{2} = 38, \frac{a+h}{2} = 30, \frac{a+i}{2} = 32, \frac{a+j}{2} = 28$$

Solving the above we get the following values

$$a = 21, b = 35, c = 21, d = 31, e = 27$$

$$f = 49, g = 55, h = 39, i = 43, j = 35$$

Similarly the number of questions solved correctly in each of the given 10 sections can be easily calculated.

The following table provides information about the number of questions in each section, number of questions solved correctly in each section and the difference of the number of questions and the number of questions solved correctly in each section.

Sections	I	II	III	IV	V	VI	VII	VIII	IX	X	Total
Total	21	35	21	31	27	49	55	39	43	35	366
Correct	7	21	15	21	23	35	41	33	29	27	252
Total – Correct	14	14	6	10	4	14	14	6	14	8	104
Absolute Value of [Correct – (Total – Correct)]	7	7	9	11	19	11	27	27	15	19	—

16. d In section V, the difference between the number of questions and the number of questions solved correctly is the least.

17. d Number of questions solved incorrectly and number of questions left unattempted in section VI can be 3 and 11 respectively. Hence option (1) is possible.

Number of questions solved incorrectly and number of questions left unattempted in section VI can be 6 and 8 respectively. Hence option (2) is possible.

Number of questions solved incorrectly and number of questions left unattempted in section X can be 3 and 5 respectively. Hence option (3) is possible.

If option (a) is possible, then option (e) is also possible ( $\because \frac{3}{11} = \frac{3+11}{11} = \frac{14}{11}$ )

Option (d) is not possible and hence the correct choice.

18. b The number of questions in sections VI, VII, VIII, IX and X is not less than the number of questions in section II. Hence there are 5 such sections.

19. c In seven sections namely I, II, III, IV, V, VI and IX.

20. b Maximum possible number of questions solved incorrectly in sections I, II, III, IV, V, VI, VII, VIII, IX and X is 1, 5, 3, 5, 5, 8, 10, 8, 7 and 6 respectively.

So, total number of questions solved incorrectly = 58.

Therefore, number of question left unattempted = 104 - 58 = 46.

Minimum possible marks obtained by the student in the entrance test =  $252 \times 4 - (58 \times 2 + 46 \times 1) = 846$

21. c Since 909909 are divisible by 9 and 567 is also divisible by 9.

$\therefore x$  is also divisible by 9.

22. e Number of books is not known. Thus, by using both statements also we do not get the answer.

23. c Solving the given data

Number of questions solved incorrectly and number of questions left unattempted in section VI can be 6 and 8 respectively. Hence option (2) is possible.

Number of questions solved incorrectly and number of questions left unattempted in section X can be 3 and 5 respectively. Hence option (3) is possible.

If option (a) is possible, then option (e) is also possible ( $\because \frac{3}{11} = \frac{3+11}{11} = \frac{14}{11}$ )

Option (d) is not possible and hence the correct choice.

18. b The number of questions in sections VI, VII, VIII, IX and X is not less than the number of questions in section II. Hence there are 5 such sections.

19. c In seven sections namely I, II, III, IV, V, VI and IX.

20. b Maximum possible number of questions solved incorrectly in sections I, II, III, IV, V, VI, VII, VIII, IX and X is 1, 5, 3, 5, 5, 8, 10, 8, 7 and 6 respectively.

So, total number of questions solved incorrectly = 58.

Therefore, number of question left unattempted = 104 - 58 = 46.

Minimum possible marks obtained by the student in the entrance test =  $252 \times 4 - (58 \times 2 + 46 \times 1) = 846$

21. c Since 909909 are divisible by 9 and 567 is also divisible by 9.

$\therefore$  x is also divisible by 9.

22. e Number of books is not known. Thus, by using both statements also we do not get the answer.

23. c Solving the given data

$$\frac{x+y}{x} + \frac{x-y}{y} = \frac{y}{x} + \frac{x}{y} = \frac{1}{\frac{x}{y}} + \frac{x}{\frac{y}{x}} = \frac{y}{x} + \frac{x}{y}$$

Thus, both statements can give answers independently.

24. d Statement I:  $(c+d)(c-d) = 5$ .

This data is not sufficient independently.

Combining with (II) we get  $c + d$ .

25. c Using statement I, the orthocentre lies outside the triangle only in the case of an obtuse triangle. Thus, ABC is not an equilateral triangle.

Using statement II, only in the case of an equilateral triangle does the circumcentre coincide with the orthocentre. Thus, DABC is an equilateral triangle.

**LRDI Practice Test - 12****For questions 1 to 5:**

From information B and E, it is clear that surname of Asha is Singh and she has ordered one San Marino Imbottiti and one Sicilian Fugitive pizza. From information A, at least one of them must be in Solo size. So, possible total bill amounts of Asha Singh are Rs. 246, Rs. 372, Rs. 266 and Rs. 396 only.

From information E, it is also evident that Esha's surname is either Hazra or Malhotra.

Let us assume that Esha's surname is Malhotra. Then, from information C, the pizza, which is common between Esha and Isha, did not start with 'M'. So the single Montreal Ham must have been ordered by Esha and from information F, this is a Solo size pizza. From information E, Esha Malhotra's bill amount is Rs. 127 less than Asha. So this amount can be Rs. 119, Rs. 245, Rs. 139 and Rs. 269. Deduct Rs. 87 from these amounts, which Esha Malhotra must have spent on Solo size Montreal Ham. You will get Rs. 32, Rs. 158, Rs. 52 and Rs. 182 respectively, which must be the price of the other pizza Esha ordered. Out of these only Rs. 158 can be found out in the menu for a double size Raffaele's Bianco. But, the pizza, which is common pizza between Esha and Isha, must have been ordered at least twice. So Raffaele's Bianco cannot be the common pizza between Esha and Isha. So, Raffaele's Bianco must have been ordered by Usha and not by Esha.

Therefore, our assumption, that Esha's surname is Malhotra is wrong. Esha's surname is Hazra. She must have ordered Hawaiian Honeymoon in Solo size and one other pizza in Double or Family size. Again, the common pizza between Esha and Isha, must have been ordered at least twice. So Raffaele's Bianco cannot be the common pizza between Esha and Isha. So, Usha must have ordered Raffaele's Bianco. From information F, Usha must have ordered Raffaele's Bianco in any size other than Double. Now, Usha's surname is either Gupta or Malhotra.

Let us assume that Usha's surname is Gupta. Then she must have ordered Godfather's Choice in Double size. So, she must have ordered Raffaele's Bianco in Solo size. So, possible total bill amounts of Usha Gupta are Rs. 214 only. From information E, Usha Gupta's bill amount is Rs. 81 more than Esha. So Esha's bill amount can be Rs. 133 only. Deduct Rs. 87 from these amounts, which Esha Hazra must have spent on Solo size Hawaiian Honeymoon. The remaining amount is Rs. 46, which must be the price of the other pizza Esha ordered. There is no pizza with this price tag in the menu.

Therefore, our assumption, that Usha's surname is Gupta is wrong. Usha's surname is Malhotra and Isha's surname is Gupta. Usha must have ordered Raffaele's Bianco in Solo size and Montreal Ham in Double. So her total bill is Rs. 245. That means Asha's total bill is Rs. 372. So she must have ordered San Marino Imbottiti in Solo size and one Sicilian Fugitive pizza in Family size.

Now Isha Gupta must have ordered one Godfather's Choice. Let us assume this was in Solo size. She has ordered another pizza common with Esha. We know, that Esha Hazra must have ordered one Hawaiian Honeymoon in Solo size and one other pizza in Double or Family size. The price of Godfather's Choice is Rs. 12 less than Hawaiian Honeymoon in Solo size. But, from information E, Ms. Gupta's total bill was Rs. 81 more than Esha. So, the other pizza must have created the difference of Rs. 93. But there is no such pizza, for which the difference of price for Double and Family size is Rs. 93. So our assumption was wrong.

Next, let us assume that Isha Gupta ordered one Godfather's Choice in Double size. That means Isha must have ordered the other pizza in Solo size. The price of Godfather's Choice in Double size is Rs. 20 more than Hawaiian Honeymoon in Solo size. So, the other pizza must have created the difference of Rs. 61. But there is no such pizza, for which the difference of price for Solo and Double/Family size is Rs. 61. So our assumption was again wrong.

So, Isha must have ordered one Godfather's Choice in Family size. That means Isha must have ordered the other pizza in Solo size. The price of Godfather's Choice in Family size is

Rs. 118 more than Hawaiian Honeymoon in Solo size. So, the other pizza must have created the difference of Rs. 37. Only for Verona's Army, the difference of price for Solo and Double size is Rs. 37.

Now, finally we can collate the derived information in the following table, which can help us to answer all the questions:

Name		Asha	Esha	Isha	Usha
Surname		Singh	Hazra	Gupta	Malhotra
Pizza 1	Type	San Marino Imbottiti	Hawaiian Honeymoon	Verona's Army	Raffaele's Bianco
	Size	Solo	Solo	Solo	Solo
Pizza 2	Type	Sicilian Fugitive	Verona's Army	Godfather's Choice	Montreal Ham
	Size	Family	Double	Family	Double
Total Bill (Rs.)		372	262	343	245

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

6. b  $30+25+40+5$  for reminder mail, i.e. 100% space is used

∴ free space is 0%

7. a The deleted mails will go to trash and would still occupy space. So all will bounce.

8. d On day 3, 20 MB of space will be created in trash folder as mails deleted on day 1 will be automatically cleared.

So, none of the mail will bounce.

#### For questions 9 to 12:

The maximum possible lecturers were short-listed. Since there are 5 age groups and 4 different disciplines; and there can be at most two lecturers of a particular age group representing a particular discipline, the number of lecturers short-listed =  $5 \times 4 \times 2 = 40$ .

Number of them selected =  $5 + 20 = 25$ .

Now,

(i) Tells that out of these 25, the number of lecturers from various age groups is:

Young:	5
Middle-aged:	5
Senior:	4
Stalwarts:	4
Retired:	7
TOTAL	25

Now coming directly to (iii),

Physics	Chemistry	Mathematics	Biology
Young	Young	Young	Young
Middle-aged	Middle-aged	Middle-aged	Middle-aged
Senior	Senior	Senior	Senior
Stalwart	Stalwart	Stalwart	Stalwart
Retired	Retired	Retired	Retired

Each of them is having at least one lecturer.

So assigning one to each of them, the table looks like:

Physics	Chemistry	Mathematics	Biology
Young (1)	Young (1)	Young (1)	Young (1)
Middle-aged (1)	Middle-aged (1)	Middle-aged (1)	Middle-aged (1)
Senior (1)	Senior (1)	Senior (1)	Senior (1)
Stalwart (1)	Stalwart (1)	Stalwart (1)	Stalwart (1)
Retired (1)	Retired (1)	Retired (1)	Retired (1)

The balance lecturers are:

Young:	1
Middle-aged:	2
Senior:	1
Stalwarts:	1
Retired:	3
<b>TOTAL</b>	<b>8</b>

Going back to (ii), total number of lecturers for physics, chemistry and biology can be counted to lie between 12 and 20. Moreover, the total is a square.

= Total in these three is 16 and there are 9 lecturers from mathematics stream.

Proceeding, (iv) tells us that Rocky and Platy are Young physics lecturers.

So the balance Young lecturer goes in Physics. And since none of the cells can have more than 2 and total for Mathematics is 9, we get a better version of the table as:

Physics (5 or more)	Chemistry (5 or more)	Mathematics (9)	Biology (3 or more)
Young (2)	Young (1)	Young (1)	Young (1)
Middle Aged (1)	Middle Aged (1)	Middle Aged (2)	Middle-Aged
Senior	Senior (1)	Senior (2)	Senior (1)
Stalwart (1)	Stalwart (1)	Stalwart (2)	Stalwart
Retired (1)	Retired (1)	Retired (2)	Retired (1)

And the balance lecturers now:

Middle Aged:	1
Retired:	2
<b>TOTAL</b>	<b>3</b>

Note that the column for Mathematics is complete. And in Biology, count for Retired can be 2 at max. And there is no provision for Middle Aged in Biology.

Thus, out of the two balance retired lecturers, at most one can go in Biology and in that case, the remaining retired

and middle aged ones must go into Physics or Chemistry or both.

9. d As of now, minimum lecturers for Physics as well as that of Chemistry are 5. But since the number of Physics lecturers is greater than the number of Chemistry lecturers, at least one of the balance three must go into Physics.

Case I: Middle-aged lecturer goes into Physics.

Now, out of the remaining two retired lecturers one has to go into Physics and the remaining one can go either in Chemistry or Biology.

Case II: Retired lecturer goes into Physics.

Here also, the count for retired in Physics is full (2). Middle Aged cannot go in Biology and if he goes into Chemistry, the initial condition that "the number of Physics lecturers is greater than the number of Chemistry lecturers" can never get satisfied.

So the middle aged goes into Physics and we get the same configuration as in case I

Physics (7)	Chemistry (5 or 6)	Mathematics (9)	Biology (3 or 4)
Young (2)	Young (1)	Young (1)	Young (1)
Middle Aged (2)	Middle Aged (1)	Middle Aged (2)	Middle-Aged
Senior	Senior (1)	Senior (2)	Senior (1)
Stalwart (1)	Stalwart (1)	Stalwart (2)	Stalwart
Retired (2)	Retired (1)	Retired (2)	Retired (1)

The one remaining retired lecturer goes into either Chemistry or Biology.

Hence the number of retired Chemistry lecturers cannot be determined.

10. b It is already explained that the middle aged lecturer and at least one retired lecturer goes into Physics or Chemistry or both, the total is at least 12 and at most 13.

11. d Since Kandy is the lone retired Chemistry lecturer, the balance 2 retired Chemistry lecturers go into Physics and Biology (one each). So there are two retired Biology lecturers for sure.

12. c At least one of the retired lecturer must go into one of Physics or Chemistry. Thus the count for both of them cannot be one.

13. d Laxman has scored 3,000 runs and has taken 60 catches. He has not taken any wickets. Even if we assume that he has scored all runs in centuries, then also his points would be:

$$\text{Runs} \rightarrow 3,000, \text{Catches} \rightarrow 180, \text{Centuries} \rightarrow 30 \times 50 = 1,500$$

Total points 4,680, so grade E.

14. a Zaheer has scored 1,000 runs and taken 50 catches. He has taken 150 wickets (half of Kumble). 8 five wicket hauls. If we assume that he has scored all runs in centuries, then his maximum points would be:

$$\text{Runs} \rightarrow 1,000, \text{Catches} \rightarrow 150, \text{Centuries} \rightarrow 10 \times 50 = 500, \text{Wickets} \rightarrow 3,000, \text{Five wicket haul} \rightarrow 400$$

Total points, 5,050 , so at the most he could be in grade D.

15. a Ganguly has scored 10,000 runs and taken 50 wickets. If we assume that he has scored all runs in centuries, then his points would be:

$$\text{Runs} \rightarrow 10,000, \text{Centuries} \rightarrow 100 \times 50 = 5,000, \text{Wickets} \rightarrow 1,000$$

Total points 16,000, so grade A.

16. b Sehwag could score maximum 7,999 runs and taken 50 catches. He has taken 40 wickets.

And taken 4 five wicket hauls. He has scored 10 centuries. His points would be:

Runs  $\rightarrow 7,999$ , Catches  $\rightarrow 150$ , Centuries  $\rightarrow 500$ , Wickets  $\rightarrow 800$ , 5 wicket haul  $\rightarrow 200$

Total points 9,649, so he cannot be in grade B.

**For questions 17 to 19:**

$$\text{UPA } (30 + 5 + 7)\% = 42\%$$

$$\text{If Congress led} = 42\% + 2\% \text{ (of CPI)} = 44\%$$

$$\text{NDA} = (20 + 2 + 2)\% + 10\% \text{ ("Others")} = 34\%$$

$$17. \text{d (i) } -(8\% \text{ (of SP)} + 4\% \text{ (of BSP)}) = -12\%$$

$$\text{(ii) } 34\% \text{ (of NDA)} + 5\% \text{ (of RJD)} = 39\%$$

$$\text{(iii) } 55 \text{ members} = -11\%$$

If all (i), (ii) and (iii) happen, then

$$\begin{aligned} \text{NDA} &= 39\% \text{ which is more than } 50\% \text{ of} \\ (100 - 12 - 11) &= 77\% \end{aligned}$$

18. d If it breaks away at least five members, the total strength gets reduced to 495, 60 abstain (40+20) so for simple

majority you need half of 435, i.e. 218, Congress has backing of 220. CPM's support would definitely be another way.

19. d If members of BJP, Others, CPM and RJD support a Congress led government then it would have a 75% majority. Hence four parties.

20. b Statement I is not sufficient as there are more than one sequences satisfying the question condition. Statement II is sufficient to answer the question. Since the first term is 0, the 3rd term will be 6.

Runs → 7,999, Catches → 150, Centuries → 500, Wickets → 800, 5 wicket haul → 200

Total points 9,649, so he cannot be in grade B.

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21. a Statement I alone gives the relationship the three shapes in terms of size and is enough to answer the question.

Statement II gives the data to find the area of the circle but not for the two others.

Thus, the answer is (a).

22. c 'C' is a set of integers, and 'x' an element in C. Then from statement I,  $(x + 3)$  can also be an element in 'C' if we take x as negative integers and hence the condition is fulfilled. Similarly, with the help of statement II alone we can get the answer.

23. e There can be many different relationships possible. So statement I does not provide an answer. Statement II gives us a very general piece of information. The two statements combined together are not sufficient.

24. d From statement I, we get  $15x + 20y = 130$

The only possibility for x and y are (6, 2) and (2, 5).

From statement II, we get  $x = 2$  and  $y = 5$ ,

i.e. we have 5 tickets of \$20 and 2 tickets of \$15.

Thus, the answer is (d).

25. d From statement I, we get the lowest = 20, highest = 80

From statement II, we get the two series are in AP.

20, 23, 26, 29, ..., 80

$$\therefore \text{Average} = \frac{80 + 20}{20} = 50$$