

## SECTION II

**Number of Questions: 50**

**DIRECTIONS for Questions 51 to 53:** Answer the questions on the basis of the information given below.

One of the functions of the Reserve Bank of India is to mobilize funds for the Government of India by issuing securities. The following table shows details of funds mobilized during the period July 2002 – July 2003. Notice that on each date there were two rounds of issues, each with a different maturity.

Date of issue	Notified amount	Maturity	Competitive bids received	Non-competitive bids received	Competitive bids accepted	Non-competitive bids accepted	Total amount mobilized	Coupon rate %	Implicit yield %
	Rs. crore	Years	No.	No.	No.	Value	Rs. crore		
17-Jul-02	40	15	229	23	66	15.21	23	0.37	16
17-Jul-02	30	10	145	12	90	29.88	12	0.12	30
05-Aug-02	50	9	324	13	105	49.68	13	0.33	50
05-Aug-02	20	24	163	9	34	19.81	9	0.19	20
28-Aug-02	50	15	260	26	157	48.92	26	1.08	50
28-Aug-02	20	30	119	15	67	19.61	15	0.39	20
11-Sep-02	40	15	261	22	152	38.93	22	1.07	40
11-Sep-02	30	20	131	20	98	29.44	20	0.56	30
09-Oct-02	40	11	361	26	119	39.22	26	0.78	40
09-Oct-02	30	30	91	15	39	29.52	15	0.48	30
07-Nov-02	40	17	245	14	20	39.71	14	0.29	40
07-Nov-02	30	24	166	11	49	29.70	11	0.31	30
09-Apr-03	40	20	245	25	65	39.53	25	1.47	40
09-Apr-03	50	11	236	24	201	49.40	24	0.60	50
23-Apr-03	50	15	319	26	134	48.98	26	1.02	50
23-Apr-03	20	29	131	19	9	19.39	19	0.61	20
05-May-03	60	10	314	14	98	59.69	14	0.31	60
05-May-03	30	20	143	14	118	29.58	14	0.42	30
04-Jun-03	30	25	187	19	15	28.50	19	1.50	30
04-Jun-03	60	9	378	21	151	59.09	21	0.91	60
02-Jul-03	50	11	298	20	116	49.05	20	0.95	50
02-Jul-03	30	25	114	20	45	28.64	20	1.36	30
16-Jul-03	60	17	371	29	115	57.00	29	3.10	60
16-Jul-03	30	29	134	22	12	29.32	22	0.68	30
<b>Total</b>	<b>930</b>						<b>906</b>		

**51.** How many times was the issue of securities under-subscribed, i.e., how often did the total amount mobilized fall short of the amount notified?

1. 0

2. 1

3. 2

4. 3

**52.** Which of the following is true?

1. The second round issues have a higher maturity than the first round for all dates.
2. The second round issue of any date has a lower maturity only when the first round notified amount exceeds that of the second round.
3. On at least one occasion, the second round issue having lower maturity received a higher number of competitive bids.
4. None of the above three statements is true.

**53.** Which of the following statements is NOT true?

1. Competitive bids received always exceed non-competitive bids received.
2. The number of competitive bids accepted does not always exceed the number of non-competitive bids accepted.
3. The value of competitive bids accepted on any particular date is never higher for higher maturity.
4. The value of non-competitive bids accepted in the first round is always greater than that in the second round.

**DIRECTIONS for Questions 54 to 56:** In each question, there are two statements: A and B, either of which can be true or false on the basis of the information given below.

A research agency collected the following data regarding the admission process of a reputed management school in India.

Year	Gender	Number bought application forms	Number appeared for written test	Number called for interviews	Number selected for the course
2002	Male	61205	59981	684	171
	Female	19236	15389	138	48
2003	Male	63298	60133	637	115
	Female	45292	40763	399	84

Choose 1 if only A is true

Choose 2 if only B is true

Choose 3 if both A and B are true

Choose 4 if neither A nor B is true

**54.**

Statement A: The success rate of moving from written test to interview stage for males was worse than for females in 2003.

Statement B: The success rate of moving from written test to interview stage for females was better in 2002 than in 2003.

**55.**

Statement A: In 2002, the number of females selected for the course as a proportion of the number of females who bought application forms, was higher than the corresponding proportion for males.

Statement B: In 2002, among those called for interview, males had a greater success rate than females.

**56.**

Statement A: The percentage of absentees in the written test among females decreased from 2002 to 2003.

Statement B: The percentage of absentees in the written test among males was larger than among females in 2003.

**DIRECTIONS for Questions 57 to 59:** Answer the questions on the basis of the information given below.

Table A below provides data about ages of children in a school. For the age given in the first column, the second column gives the number of children not exceeding that age. For example, first entry indicates that there are 9 children aged 4 years or less. Tables B and C provide data on the heights and weights respectively of the same group of children in a similar format. Assuming that an older child is always taller and weighs more than a younger child, answer the following questions.

Table A	
Age (years)	Number
4	9
5	12
6	22
7	35
8	42
9	48
10	60
11	69
12	77
13	86
14	100

Table B	
Height (cm.)	Number
115	6
120	11
125	24
130	36
135	45
140	53
145	62
150	75
155	81
160	93
165	100

Table C	
Weight (kg.)	Number
30	8
32	13
34	17
36	28
38	33
40	46
42	54
44	67
46	79
48	91
50	100

57. What is the number of children of age 9 years or less whose height does not exceed 135 cm?

1. 48                    2. 45                    3. 3                    4. Cannot be determined.

58. How many children of age more than 10 years are taller than 150 cm. and do not weigh more than 48 kg.?

1. 16                    2. 40                    3. 9                    4. Cannot be determined.

59. Among the children older than 6 years but not exceeding 12 years, how many weigh more than 38 kg.?

1. 34                    2. 52                    3. 44                    4. Cannot be determined.

**DIRECTIONS for Questions 60 and 61:** Answer the questions on the basis of the information given below.

An industry comprises four firms (A, B, C, and D). Financial details of these firms and of the industry as a whole for a particular year are given below. Profitability of a firm is defined as profit as a percentage of sales.

Figures in Rs.	A	B	C	D	Total
Sales	24568	25468	23752	15782	89570
Operating costs	17198	19101	16151	10258	62708
Interest costs	2457	2292	2850	1578	9177
Profit	4914	4075	4750	3946	17684

60. Which firm has the highest profitability?

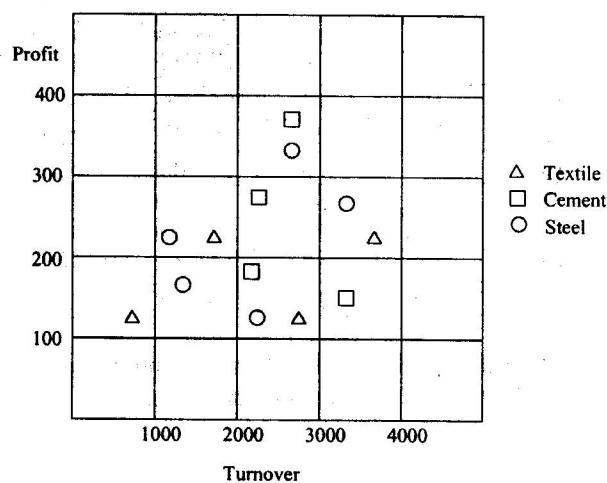
1. A      2. B      3. C      4. D

61. If Firm A acquires Firm B, approximately what percentage of the total market (total sales) will they corner together?

1. 55%      2. 45%      3. 35%      4. 50%

**DIRECTIONS for Questions 62 to 64:** Answer the questions on the basis of the information given below.

Each point in the graph below shows the profit and turnover data for a company. Each company belongs to one of the three industries: textile, cement and steel.



62. For how many companies does the profit exceed 10% of turnover?

1. 8      2. 7      3. 6      4. 5

63. For how many steel companies with a turnover of more than 2000 is the profit less than 300?

1. 0      2. 1      3. 2      4. 7

64. An investor wants to buy stock of only steel or cement companies with a turnover more than 1000 and profit exceeding 10% of turnover. How many choices are available to the investor?

1. 4      2. 5      3. 6      4. 7

**DIRECTIONS for Questions 65 to 67:** Answer the questions on the basis of the information given below. Details of the top 20 MBA schools in the US as ranked by *US News and World Report*, 1997 are given below.

School	Overall ranking	Ranking by Academics	Ranking by recruiters	Ranking by placement	Median starting salary	% employed	Annual tuition fee
Stanford University	1	1	3	1	\$82,000	98.9	\$23,100
Harvard University	2	1	2	4	\$80,000	96.4	\$23,840
University of Pennsylvania	3	1	4	2	\$79,000	100.0	\$24,956
Massachusetts Institute of Technology	4	1	4	3	\$78,000	98.8	\$23,900
University of Chicago	5	1	8	10	\$65,000	98.4	\$23,930
Northwestern University	6	1	1	11	\$70,000	93.6	\$23,025
Columbia University	7	9	10	5	\$83,000	96.2	\$23,830
Dartmouth College	8	12	11	6	\$70,000	98.3	\$23,700
Duke University	9	9	7	8	\$67,500	98.5	\$24,380
University of California—Berkeley	10	7	12	12	\$70,000	93.7	\$18,788
University of Virginia	11	12	9	9	\$66,000	98.1	\$19,627
University of Michigan—Ann Arbor	12	7	6	14	\$65,000	99.1	\$23,178
New York University	13	16	19	7	\$70,583	97.0	\$23,554
Carnegie Mellon University	14	12	18	13	\$67,200	96.6	\$22,200
Yale University	15	18	17	22	\$65,000	91.5	\$23,220
Univ. of North Carolina—Chapel Hill	16	16	16	16	\$60,000	96.8	\$14,333
University of California—Los Angeles	17	9	13	38	\$65,000	82.2	\$19,431
University of Texas—Austin	18	18	13	24	\$60,000	97.3	\$11,614
Indiana University—Bloomington	19	18	20	17	\$61,500	95.2	\$15,613
Cornell University	20	12	15	36	\$64,000	85.1	\$23,151

65. Madhu has received admission in all schools listed above. She wishes to select the highest overall ranked school whose a) annual tuition fee does not exceed \$23,000 and b) median starting salary is at least \$70,000. Which school will she select?

1. University of Virginia.  
2. University of Pennsylvania.  
3. Northwestern University.  
4. University of California—Berkeley.

66. In terms of starting salary and tuition fee, how many schools are uniformly better (higher median starting salary AND lower annual tuition fee) than Dartmouth College?

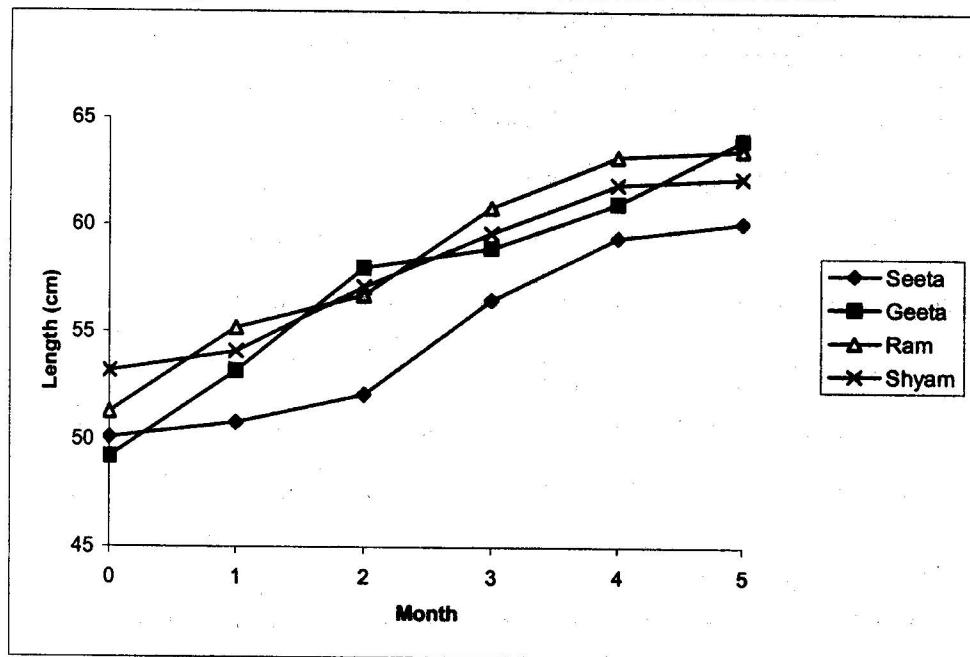
1. 1                  2. 2                  3. 3                  4. 4

67. How many schools in the list above have single digit rankings on at least 3 of the 4 parameters (overall ranking, ranking by academics, ranking by recruiters and ranking by placement)?

1. 10                  2. 5                  3. 7                  4. 8

**DIRECTIONS for Questions 68 to 71:** Answer the questions on the basis of the information given below.

The length of an infant is one of the measures of his/her development in the early stages of his/her life. The figure below shows the growth chart of four infants in the first five months of life.



68. After which month did Seeta's rate of growth start to decline?

1. Second month
2. Third month
3. Fourth month
4. Never

69. Who grew at the fastest rate in the first two months of life?

1. Geeta
2. Seeta
3. Ram
4. Shyam

70. The rate of growth during the third month was the lowest for

1. Geeta
2. Seeta
3. Ram
4. Shyam

71. Among the four infants, who grew the least in the first five months of life?

1. Geeta
2. Seeta
3. Ram
4. Shyam

**DIRECTIONS for Questions 72 to 74:** Answer the questions on the basis of the information given below.

The table below provides certain demographic details of 30 respondents who were part of a survey. The demographic characteristics are: gender, number of children, and age of respondents. The first number in each cell is the number of respondents in that group. The minimum and maximum age of respondents in each group is given in brackets. For example, there are five female respondents with no children and among these five, the youngest is 34 years old, while the oldest is 49.

No. of children	Male	Female	Total
0	1 (38, 38)	5 (34, 49)	6
1	1 (32, 32)	8 (35, 57)	9
2	8 (21, 65)	3 (37, 63)	11
3	2 (32, 33)	2 (27, 40)	4
Total	12	18	30

72. The percentage of respondents aged less than 40 years is at least

1. 10%      2. 16.67%      3. 20.0%      4. 30%

73. Given the information above, the percentage of respondents older than 35 can be at most

1. 30%      2. 73.33%      3. 76.67%      4. 90%

74. The percentage of respondents that fall into the 35 to 40 years age group (both inclusive) is at least

1. 6.67%      2. 10%      3. 13.33%      4. 26.67%

**DIRECTIONS for Questions 75 to 77:** Answer the questions on the basis of the information given below.

Spam that enters our electronic mailboxes can be classified under several spam heads. The following table shows the distribution of such spam worldwide over time. The total number of spam emails received during December 2002 was larger than the number received in June 2003. The total number of spam emails received during September 2002 was larger than the number received in March 2003. The figures in the table represent the percentage of all spam emails received during that period, falling into those respective categories.

Category	Sep 2002	Dec 2002	Mar 2003	Jun 2003
Adult	38	33	19	17
Financial	25	30	37	45
Health	11	19	5	18
Internet	5	3	10	6
Products	3	7	10	11
Scams	5	6	11	2
Others	13	2	8	1

75. In which category was the percentage of spam emails increasing but at a decreasing rate?

1. Financial      2. Scams      3. Products      4. none of the above

76. In the health category, the number of spam emails received in December 2002 as compared to June 2003

1. was larger.      2. was smaller.      3. was equal.      4. cannot be determined.

77. In the financial category, the number of spam emails received in September 2002 as compared to March 2003

1. was larger.      2. was smaller.      3. was equal.      4. cannot be determined.

**DIRECTIONS for Questions 78 to 81:** In each question there are two statements: A and B.

Choose 1 if the question can be answered by one of the statements alone but not by the other.

Choose 2 if the question can be answered by using either statement alone.

Choose 3 if the question can be answered by using both the statements together but cannot be answered using either statement alone.

Choose 4 if the question cannot be answered even by using both the statements A and B.

78. F and M are father and mother of S, respectively. S has four uncles and three aunts. F has two siblings. The siblings of F and M are unmarried. How many brothers does M have?

- A. F has two brothers.
- B. M has five siblings.

79. A game consists of tossing a coin successively. There is an entry fee of Rs. 10 and an additional fee of Re. 1 for each toss of the coin. The game is considered to have ended normally when the coin turns heads on two consecutive throws. In this case the player is paid Rs. 100. Alternatively, the player can choose to terminate the game prematurely after any of the tosses. Ram has incurred a loss of Rs 50 by playing this game. How many times did he toss the coin?

- A. The game ended normally.
- B. The total number of tails obtained in the game was 138.

80. Each packet of SOAP costs Rs 10. Inside each packet is a gift coupon labelled with one of the letters S, O, A, and P. If a customer submits four such coupons that make up the word SOAP, the customer gets a free SOAP packet. Ms. X kept buying packet after packet of SOAP till she could get one set of coupons that formed the word SOAP. How many coupons with label P did she get in the above process?

- A. The last label obtained by her was S and the total amount spent was Rs 210.
- B. The total number of vowels obtained was 18.

81. If A and B run a race, then A wins by 60 seconds. If B and C run the same race, then B wins by 30 seconds. Assuming that C maintains a uniform speed what is the time taken by C to finish the race?

- A. A and C run the same race and A wins by 375 metres.
- B. The length of the race is 1 km.

**DIRECTIONS for Questions 82 and 83:** Answer the questions on the basis of the information given below.

Some children were taking free throws at the basketball court in school during lunch break. Below are some facts about how many baskets these children shot.

- i. Ganesh shot 8 baskets less than Ashish.
- ii. Dhanraj and Ramesh together shot 37 baskets.
- iii. Jugraj shot 8 baskets more than Dhanraj.
- iv. Ashish shot 5 baskets more than Dhanraj.
- v. Ashish and Ganesh together shot 40 baskets.

**82.** Which of the following statements is true?

1. Ramesh shot 18 baskets and Dhanraj shot 19 baskets.
2. Ganesh shot 24 baskets and Ashish shot 16 baskets.
3. Jugraj shot 19 baskets and Dhanraj shot 27 baskets.
4. Dhanraj shot 11 baskets and Ashish shot 16 baskets.

**83.** Which of the following statements is true?

1. Dhanraj and Jugraj together shot 46 baskets.
2. Ganesh shot 18 baskets and Ramesh shot 21 baskets.
3. Dhanraj shot 3 more baskets than Ramesh.
4. Ramesh and Jugraj together shot 29 baskets.

**DIRECTIONS for Questions 84 to 86:** Answer the questions on the basis of the information given below.

Seven varsity basketball players (A, B, C, D, E, F, and G) are to be honoured at a special luncheon. The players will be seated on the dais in a row. A and G have to leave the luncheon early and so must be seated at the extreme right. B will receive the most valuable player's trophy and so must be in the centre to facilitate presentation. C and D are bitter rivals and therefore must be seated as far apart as possible.

**84.** Which of the following cannot be seated at either end?

1. C
2. D
3. F
4. G

**85.** Which of the following pairs cannot be seated together?

1. B & D
2. C & F
3. D & G
4. E & A

**86.** Which of the following pairs cannot occupy the seats on either side of B?

1. F & D
2. D & E
3. E & G
4. C & F

**DIRECTIONS for Questions 87 to 89:** Answer the questions on the basis of the information given below.

A, B, C, D, E, and F are a group of friends. There are two housewives, one professor, one engineer, one accountant and one lawyer in the group. There are only two married couples in the group. The lawyer is married to D, who is a housewife. No woman in the group is either an engineer or an accountant. C, the accountant, is married to F, who is a professor. A is married to a housewife. E is not a housewife.

**87.** Which of the following is one of the married couples?

1. A & B
2. B & E
3. D & E
4. A & D.

**88.** What is E's profession?

1. Engineer
2. Lawyer
3. Professor
4. Accountant

**89.** How many members of the group are males?

1. 2
2. 3
3. 4
4. Cannot be determined.

**DIRECTIONS for Questions 90 to 92:** Answer the questions on the basis of the information given below.

Rang Barsey Paint Company (RBPC) is in the business of manufacturing paints. RBPC buys RED, YELLOW, WHITE, ORANGE, and PINK paints. ORANGE paint can be also produced by mixing RED and YELLOW paints in equal proportions. Similarly, PINK paint can also be produced by mixing equal amounts of RED and WHITE paints. Among other paints, RBPC sells CREAM paint, (formed by mixing WHITE and YELLOW in the ratio 70:30) AVOCADO paint (formed by mixing equal amounts of ORANGE and PINK paint) and WASHEDORANGE paint (formed by mixing equal amounts of ORANGE and WHITE paint). The following table provides the price at which RBPC buys paints.

Color	Rs./litre
RED	20.00
YELLOW	25.00
WHITE	15.00
ORANGE	22.00
PINK	18.00

90. The cheapest way to manufacture AVOCADO paint would cost

- 1. Rs. 19.50 per litre.
- 2. Rs. 19.75 per litre.
- 3. Rs. 20.00 per litre.
- 4. Rs. 20.25 per litre.

91. WASHEDORANGE can be manufactured by mixing

- 1. CREAM and RED in the ratio 14:10.
- 2. CREAM and RED in the ratio 3:1.
- 3. YELLOW and PINK in the ratio 1:1.
- 4. RED, YELLOW, and WHITE in the ratio 1:1:2.

92. Assume that AVOCADO, CREAM, and WASHEDORANGE each sells for the same price. Which of the three is the most profitable to manufacture?

- 1. AVOCADO.
- 2. CREAM.
- 3. WASHEDORANGE.
- 4. Sufficient data is not available.

**DIRECTIONS for Questions 93 and 94:** Answer the questions on the basis of the information given below.

The Head of a newly formed government desires to appoint five of the six elected members A, B, C, D, E and F to portfolios of Home, Power, Defence, Telecom and Finance. F does not want any portfolio if D gets one of the five. C wants either Home or Finance or no portfolio. B says that if D gets either Power or Telecom then she must get the other one. E insists on a portfolio if A gets one.

93. Which is a valid assignment?

- 1. A-Home, B-Power, C-Defence, D-Telecom, E-Finance.
- 2. C-Home, D-Power, A-Defence, B-Telecom, E-Finance.
- 3. A-Home, B-Power, E-Defence, D-Telecom, F-Finance.
- 4. B-Home, F-Power, E-Defence, C-Telecom, A-Finance.

94. If A gets Home and C gets Finance, then which is NOT a valid assignment for Defence and Telecom?

- 1. D-Defence, B-Telecom.
- 2. F-Defence, B-Telecom.
- 3. B-Defence, E-Telecom.
- 4. B-Defence, D-Telecom.

**DIRECTIONS for Questions 95 to 97:** Answer the questions on the basis of the information given below.

Five friends meet every morning at Sree Sagar restaurant for an idli-vada breakfast. Each consumes a different number of idlis and vadas. The number of idlis consumed are 1, 4, 5, 6, and 8, while the number of vadas consumed are 0, 1, 2, 4, and 6. Below are some more facts about who eats what and how much.

- i. The number of vadas eaten by Ignesh is three times the number of vadas consumed by the person who eats four idlis.
- ii. Three persons, including the one who eats four vadas, eat without chutney.
- iii. Sandeep does not take any chutney.
- iv. The one who eats one idli a day does not eat any vadas or chutney. Further, he is not Mukesh.
- v. Daljit eats idli with chutney and also eats vada.
- vi. Mukesh, who does not take chutney, eats half as many vadas as the person who eats twice as many idlis as he does.
- vii. Bimal eats two more idlis than Ignesh, but Ignesh eats two more vadas than Bimal.

**95.** Which one of the following statements is true?

- |                         |                         |
|-------------------------|-------------------------|
| 1. Daljit eats 5 idlis. | 2. Ignesh eats 8 idlis. |
| 3. Bimal eats 1 idli.   | 4. Bimal eats 6 idlis.  |

**96.** Which of the following statements is true?

- |                          |                         |
|--------------------------|-------------------------|
| 1. Sandeep eats 2 vadas. | 2. Mukesh eats 4 vadas. |
| 3. Ignesh eats 6 vadas.  | 4. Bimal eats 4 vadas.  |

**97.** Which of the following statements is true?

- |  |  |
|--|--|
| 1. Mukesh eats 8 idlis and 4 vadas but no chutney.                         | 2. The person who eats 5 idlis and 1 vada does not take chutney. |
| 3. The person who eats equal number of vadas and idlis also takes chutney. | 4. The person who eats 4 idlis and 2 vadas also takes chutney.   |

**DIRECTIONS for Questions 98 to 100:** Answer the questions on the basis of the information given below.

Five women decided to go shopping to M.G. Road, Bangalore. They arrived at the designated meeting place in the following order: 1. Archana, 2. Chellamma, 3. Dhenuka, 4. Helen, and 5. Shahnaz. Each woman spent at least Rs. 1000. Below are some additional facts about how much they spent during their shopping spree.

- i. The woman who spent Rs. 2234 arrived before the lady who spent Rs. 1193.
- ii. One woman spent Rs. 1340 and she was not Dhenuka.
- iii. One woman spent Rs. 1378 more than Chellamma.
- iv. One woman spent Rs. 2517 and she was not Archana.
- v. Helen spent more than Dhenuka.
- vi. Shahnaz spent the largest amount and Chellamma the smallest.

**98.** What was the amount spent by Helen?

- |              |              |
|--------------|--------------|
| 1. Rs. 1193. | 2. Rs. 1340. |
| 3. Rs. 2234. | 4. Rs. 2517. |

99. Which of the following amounts was spent by one of them?

- 1. Rs. 1139.
- 2. Rs. 1378.
- 3. Rs. 2571.
- 4. Rs. 2718.

100. The woman who spent Rs. 1193 is

- 1. Archana.
- 2. Chellamma.
- 3. Dhenuka.
- 4. Helen.