

XAVIER ADMISSION TEST

XAT - 2008

* INSTRUCTIONS :

- There are 2 parts in this test. Part-A consists of 129 questions distributed in 3 sections. You have 2 hours time to complete Part-A. Each question carries 1 mark. For first five wrong answer in each section –1/3 mark will be deducted from your score, after which –1/2 mark will be deducted for any further wrong answers.
- Part-B consist of Essay-Writing. You will be given 20 minutes to complete Part-B.

PART A

SECTION - I : QUANTITATIVE AND ANALYTICAL ABILITY

DIRECTIONS (Qs. 1-21) : Each group of questions in this section is based on a set of conditions. In answering some of the questions, it may be useful to draw a rough diagram. Choose the response that most accurately and completely answers each question and blacken the corresponding space on your answer sheet.

Directions (Qs. 1-5) : Rahul Sharma has a factory which manufactures Alpha I, Beta I and Gamma I. All these are manufactured by processing Omega 34. Alpha I requires 1 kg/unit, Beta I requires 2 kg/unit and Gamma I requires 2.5 kg per unit of Omega 34, which costs Rs. 2 per kilogram. The total availability of Omega 34 is 350 kilogram. The processing is done on a machine having production hours of 160 hours in day shift and 192 hours in the night shift. The time required per unit production is as follows.

Product	Day Shift	Night Shift
Alpha I	2 hours	2.5 hours
Beta I	3 hours	4.0 hours
Gamma I	1 hour	1.5 hours

The machine costs Rs. 1 per hour. Selling price of Alpha I, Beta I and Gamma I are Rs. 8 per Unit, Rs. 12 per Unit and Rs. 3.50 per Unit respectively. At least 50 units of Alpha I have to be produced and at the most 150 units of Gamma I can be produced.

- Which of the following is possible?
 - 75 units of Alpha I, 4 units of Beta I in day shift, manufacture 40 units of Beta I and 40 units of Gamma I and 10 units of Alpha I, in the night shift.
 - 75 units of Alpha I, 4 units of Beta I in day shift, manufacture 40 units of Beta I and 40 units of Gamma I and 5 units of Alpha I, in the night shift.
 - 74 units of Alpha I, 4 units of Beta I in day shift, manufacture 25 units of Beta I and 10 units of Gamma I and 30 units of Alpha I, in the night shift.
 - 74 units of Alpha I, 5 units of Beta I in day shift, 40 units of Beta I and 10 units of Gamma I and 30 units of Alpha I, in the night shift.
 - None of these

- What percentage of the available raw material is utilised if 100 units of Alpha I, 40 units of Beta I, and 10 units of Gamma I are produced?
 - 50%
 - 58%
 - 68%
 - 78%
 - 80%
- If Rahul Sharma spends initially 150 machine hours in day shift to manufacture Gamma I, 10 hours to manufacture Alpha I, and in the night shift manufacture 53 units of Gamma I and spends the rest of the night shift to manufacture Alpha I. What will be his profit/loss?
 - Loss of Rs. 65
 - Profit Rs. 65
 - No profit no loss
 - Profit of Rs. 75
 - This manufacturing pattern is not possible
- If the minimum possible manufacturing requirement for Alpha I is met and the remaining raw material is utilised for the manufacture of the other 2 products then
 - 10 units of Beta I can be manufactured
 - 0 units of Beta I can be manufactured
 - 5 units of Beta I can be manufactured
 - 8 units of Beta I can be manufactured
 - Any of the above
- If in the day shift, 65 units of Alpha I, 4 units of Beta I, 15 units of Gamma I and in the night shift, 20 units of Beta I, 40 units of Gamma I and 20 units of Alpha I are manufactured then which of the following is true?
 - 5 hours of machine time is unutilised
 - Total cost of production is Rs. 54
 - More than 20% of the available raw material is unutilised
 - I only
 - II only
 - I and III
 - I and II
 - I, II and III

Directions (Qs. 6 to 9) : @, #, %, \$ are certain mathematical symbols.

- $(2@ 3\% 6)^2 \$1 = 143$
 - $\sqrt{(25\% 7\% 4)} = 2@ 3$
 - $x/z = 4 \# 5$ when $x/y = y/z = 2/\sqrt{5}$
 - $9\# 3 @ 2 = 6$
- The following questions are based on this data.
- $4@ (16\$ 7) \# [(8\$ 1) \% 2]$ is equal to
 - 4
 - 9
 - 3
 - 8
 - 5

7. If $a^2 @ 5 = (a \% 8)^2 \# 5$, then a can be
 (a) 0 (b) 1
 (c) 2 (d) 5
 (e) 6
8. Which of the following operations would give a prime number?
 (a) $(6\#2)\%1$ (b) $8@9\#12$
 (c) $7\%5\%1$ (d) $7\$4\2
 (e) none of these
9. $1@0\%1\$0\%1$ is equal to
 (a) 0 (b) 1
 (c) undefined (d) 2
 (e) 3

Directions (Qs. 10-14) : Amar and Akbar went to a gambling club. Amar played on machine Dodoo and Akbar played on machine Torry. Each round on Dodoo and Torry costs Rs. 50. Amar played four rounds on Dodoo and in every round the money which he had at the beginning of the round got doubled. Akbar played three rounds on Torry and every round the amount which he had at the beginning of the round got tripled. They had to pay before each round started. At the end of the fourth round Amar had Rs. 100 with him. Akbar had Rs. 75 at the end of the 3rd round.

10. Amar started with Rs.
 (a) 100 (b) 150
 (c) 55 (d) 75
 (e) 95
11. Akbar started with Rs.
 (a) 100 (b) 150
 (c) 50 (d) 75
 (e) 85
12. Which of the following is correct?
 (a) Finally Amar and Akbar both were in profit.
 (b) Finally Amar and Akbar both were in loss.
 (c) Amar and Akbar neither gained nor lost in their games.
 (d) Only one of them was in profit.
 (e) None of these
13. After paying for the 3rd round what was the amount with Amar?
 (a) Rs. 25 (b) Rs. 50
 (c) Rs. 75 (d) Rs. 100
 (e) Rs. 110
14. At the beginning of the 3rd round the amount with Akbar was:
 (a) Rs. 25 (b) Rs. 50
 (c) 75 (d) Rs. 150
 (e) Rs. 165

Directions (Q. 15-18) : This is a story of college gossip. Four new affairs were happening in the college but nobody was sure. A gossip monger finally managed to unearth a few facts and presented them before us. It seems all four of these couples had fights over some reason or the other but patched up soon afterwards.

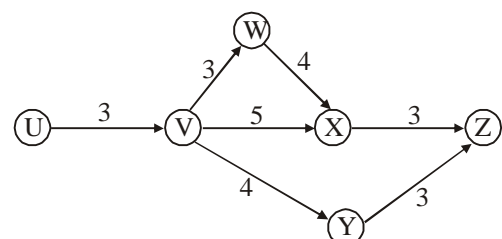
The boys are: Dinesh, Bikash, Amit and Chaitanya.
 The girls are: Beena, Chhaya, Dineka and Aasha.

The reasons for fighting are: Boy friend came late, Boy friend did not get movie tickets, Boy friend did not turn up at all for the date and Boy friend went out with some other girl.

The boys, to patch up offered chocolates to the girls-Perk, Kit-Kat, Bar One and Five Star.

- Neither Dinesh nor the person who did not turn up for the date gave his girl friend a Bar One.
- Neither Dineka nor the girl whose boy friend came late received a Kit-Kat.
- Amit gave his girl friend a Perk saying he was sorry for being late.
- Beena was mad at her boy friend because he did not get the movie tickets.
- Chhaya's anger melted away after she received a Kit-Kat from her boy friend who is not Bikash.
- Chhaya told her boy friend that he say Dinesh going with some other girl.
- Who is Amit's girl friend?
 (a) Aasha (b) Beena
 (c) Chhaya (d) Dineka
 (e) none of these
- What did Beena receive from her boy friend?
 (a) Kit-Kat (b) Bar One
 (c) Five Star (d) Perk
 (e) none of these
- Who is Chhaya's boy friend?
 (a) Amit (b) Chaitanya
 (c) Dinesh (d) Bikash
 (e) none of these
- Why was Aasha mad at her boy friend?
 (a) He did not get the movie tickets.
 (b) He came late.
 (c) He did not turn up for the date at all.
 (d) He went out with some other girl.
 (e) none of these.

Directions (Qs. 19-21) : The following network gives details about the various activities carried out in a bottling firm for their latest project and the time required for each activity. The average cost incurred in each activity is 5 times the square of the duration of the activity. If the organisation wants to reduce the duration of any particular activity, in addition to the average cost, it will have to incur an amount equal to 15 times the cube of the new duration of the activity.



19. The completion of one cycle of the network results in one bottle ready to be sold in the market. The project involves a total of 800 bottles. What is the average cost of the entire project?
- (a) Rs. 74400 (b) Rs. 372000
(c) Rs. 15000 (d) Rs. 18500
(e) Can't be determined
20. If profit is defined as the difference between the selling price and the average cost, and each bottle is sold for Rs. 510, what is the approximate percent profit earned by the firm?
- (a) 5% (b) 10%
(c) 15% (d) 17.5%
(e) Can't be determined
21. The firm decides to reduce the duration of activities (U – V), (X – Z) and (Y – Z) by one each and that of activities (V – X) and (W – X) by two each. Referring to the above questions, what will be the firm's percent profit?
- (a) +122% (b) –122%
(c) +55% (d) –55%
(e) none of these

Directions (Qs. 22-27) : Read the following caselet and choose the best alternative.

Mr. Rajiv Singhal, Chairman of the Board of Directors of Loha India Ltd., (a steel manufacturing company) had just been visited by several other directors of the company. The directors were upset with recent actions of the company president Mr. Ganesh Thakur. They demand that the board consider firing the president.

Mr. Thakur, recently appointed as president, had undertaken to solve some of the management-employees problems by dealing directly with the individuals, as often as possible. The company did not have a history of strikes or any other form of collective action and was considered to have good work culture. However, Mr. Thakur felt that by dealing directly with individuals, he could portray the management's concern for the employees. An important initiative of Mr. Thakur was to negotiate wages of the supervisors with each supervisor. In these negotiation meetings, he would not involve anyone else, including the Personnel Department which reported to him, **so as to take quick decision. After discussions, he designed a wage contract for each supervisor.** This, he felt, would recognize and reward the better performers. Mr. Thakur successfully implemented the process for most of the supervisors, except those working in night shift. For them he had drawn up the contracts unilaterally benchmarking the wages of supervisors of night shift with that of supervisors of the day shift.

For several day Ram Lal, a night shift supervisor, had been trying to seek an appointment with Mr. Thakur about his wages. He was disgruntled, not only over his failure to see the president, but also over the lack of discussions about his wage contract prior to its being effected. As a family man with six dependents, he felt his weekly wage should be higher than that granted to him.

Last Thursday afternoon Ram Lal stopped by the president's office and tries to see him. Mr. Thakur's secretary refused his request on the grounds that Mr. Thakur was busy. Infuriated,

Ram Lal stormed into the president's office and confronted the startled Mr. Thakur, with his demands for a better wage. Mr. Thakur stood up and told Ram Lal to get out of his office and express his grievance through official channel. Ram Lal took a swing at the president ; who inturn punched. Ram Lal on the jaw and knocked him unconscious.

22. Out of the following, which one seems to be the most likely cause of Ram Lal's grievance?
- (a) His disappointment with the management's philosophy of having one to one interaction as the supervisors were in a way being forced to accept the wage contracts.
(b) His being in the night shift had worked to his disadvantage as he could not interact with the management regarding his problem.
(c) He was not allowed to meet the chairman of the board of directors of the company.
(d) Employment in the night shift forced him to stay away from his family during the day time and therefore he could not interact with his family members much.
(e) All of these
23. Apart from the supervisors working in the night shift, executives of which department will have most justified reasons to be to disgruntled with Mr. Thakur's initiative?
1. Production department – for not being consulted regarding the behaviour of the supervisors on the shop floor.
 2. Finance department – for not taken into confidence regarding the financial consequences of the wage contracts.
 3. Marketing department – for not being consulted on the likely impact of the wage contracts on the image of the company.
 4. Quality control-for not being able to give inputs to Mr. Thakur on how to improve quality of steel making process.
 5. Personnel department – for it was their work to oversee wage policies for employees and they had been ignored by Mr. Thakur.
- (a) 1 + 2 + 3 (b) 1 + 4 + 5
(c) 1 + 2 + 5 (d) 1 + 3 + 4
(e) 3 + 4 + 5
24. Which of the following managerial attributes does Mr. Thakur seem to lack the most?
- (a) Emotional instability under pressure.
(b) Emotional stability under pressure.
(c) Proactive problem solving.
(d) Ethical behaviour.
(e) Independent decision making
25. The most important causal factor for this entire episode could be:
- (a) Trying to follow a divide-and-rule policy in his dealings with the supervisors.
(b) Paternalistic approach towards mature individuals in the organisation.
(c) Legalistic approach to employee problems.
(d) Inconsistent dealings of Mr. Thakur with supervisors.
(e) Inadequate standards for measurement of supervisors' on-job performance.

33. A database software manufacturing company found out that a product it has launched recently had a few bugs. The product has already been bought by more than a million customers. The company realized that bugs could cost its customers significantly. However, if it informs the customers about the bug, it feared losing credibility. What would be the most ethical option for the company?
- Apologize and fix up the bug for all customers even if it has to incur losses.
 - Do not tell customers about bugs and remove only when customers face problems, even if it means losses for the customers.
 - Keep silent and do nothing.
 - Keep silent but introduce an improved product that is bug-free at the earliest.
 - Take the product off the market and apologize to customers.
34. You, a recruitment manager, are interviewing Mayank, a hard-working young man, who has problems in speaking fluent English. He has studied in vernacular medium schools and colleges. Amongst the following options, what would you choose to do, if your company has vacancies?
- I would hire him at all costs.
 - I would hire him for production or finance job but not for marketing job, which requires good communications skills.
 - I would ask him to improve his communication skills and come back again.
 - I would hire him for the job he is good at, and provide training in other areas.
 - I would not hire him as he might be an burden on organisation because of his poor communication skills.

Directions (Qs. 35-38) : Read the following situation and choose the best possible alternative.

- The Indian Idol championships were televised recently. Viewers were supposed to SMS their votes after watching the performance of the singers.
- There were a total of 16 contestants, 4 from each of the four zones, after the zonal rounds got over.
- The first round had 4 episodes, each with 4 participants, one from each of the four zones.
- 10,000 SMSs were received after each episode that was telecast.
- Half the contestants, receiving the fewest votes, were eliminated after each round.
- The episodes from the second round onwards, that were telecast had two participants each.
- The lowest number of votes that any participant got in any round was 1,000.
- For the purpose of the study each participants SMSs received in any round has been rounded off to the nearest thousand.
- There were no ties between any participants in any of the rounds.

Cumulative SMSs received for each of the participants after the zonal rounds is listed below. (in thousands)

North Zone		East Zone		South Zone		West Zone	
Participant	# of SMS	Participant	# of SMS	Participant	# of SMS	Participant	# of SMS
1	25	1	4	1	11	1	14
2	1	2	2	2	7	2	25
3	2	3	7	3	1	3	5
4	2	4	1	4	1	4	2

35. Which participants definitely made it past the first round?
- Participant # 1 from East.
 - Participant # 4 from West.
 - Participant # 4 from North.
 - Participant # 2 from East.
 - none of these.
36. What are the rounds that participant # 1 from South Zone has definitely NOT participated in?
- 1
 - 2
 - 3
 - 4
 - 5
37. Which of the option(s) below represent a possible number of cumulative SMSs that a participant could have received through the course of the competition?
- 31,000
 - 3,000
 - 36,000
 - 46,000
 - none of these
38. Which of the following statement(s) is/are true?
- The winner of the Indian Idol competition is Participant # 2 from West Zone.
 - The winner of the Indian Idol competition is Participant # 1 from North Zone.
 - Participant #1 from the West zone made it to the third round.
 - No participant got more than 6,000 votes in the first round.
- 1,2
 - 2,3
 - 3,4
 - 1,4
 - 2,4

SECTION II : DATA INTERPRETATION AND QUANTITATIVE ABILITY

NOTE: All units of measurement are in centimeters unless otherwise specified.

For questions 39-40, a statement is followed by three conclusions. Select the answer from the following options.

- (a) Using the given statement, only conclusion I can be derived.
 (b) Using the given statement, only conclusion II can be derived.
 (c) Using the given statement, only conclusion III can be derived.
 (d) Using the given statement, all conclusions I, II and III can be derived.
 (e) Using the given statement, none of the three conclusion I, II and III can be derived.

39. An operation “#” is defined by $a \# b = 1 - \frac{b}{a}$

Conclusion I. $(2 \# 1) \# (4 \# 3) = -1$

Conclusion II. $(3 \# 1) \# (4 \# 2) = -2$

Conclusion III. $(2 \# 3) \# (1 \# 3) = 0$

40. A, B, C and D are whole numbers such that

$A + B + C = 118$

$B + C + D = 156$

$C + D + A = 166$

$D + A + B = 178$

Conclusion I. A is the smallest number and $A = 21$.

Conclusion II. D is the largest number and $D = 88$.

Conclusion III. B is the largest number and $B = 56$.

41. Let $X = \{a, b, c\}$ and $Y = \{I, m\}$. Consider the following four subsets of $X \times Y$.

$F1 = \{(a, I), (a, m), (b, I), (c, m)\}$

$F2 = \{(a, I), (b, I), (c, I)\}$

$F3 = \{(a, I), (b, m), (c, m)\}$

$F4 = \{(a, I), (b, m)\}$

Which one, amongst the choices given below, is a representation of function from X to Y?

- (a) F1, F2 and F3 (b) F2 and F3
 (c) F2, F3 and F4. (d) F3 and F4.
 (e) None of the above.
42. Area of a square natural lake is 50 sq. miles. A diver wishing to cross the lake diagonally will have to swim a distance of:
 (a) 10 miles (b) 12 miles
 (c) 15 miles (d) 8 miles
 (e) None of these
43. A function $f(x)$ is said to be an odd function if $f(-x) = -f(x)$ and even if $f(-x) = f(x)$ [Definition]. Using the above definition, find for what value of a is: $f(x) = (a - 2)x + 3a - 4$ an even function?
 (a) -2 (b) 2
 (c) 0 (d) 4.
 (e) none of these
44. A test contains 8 questions. A student must answer at least two of the first five questions and at least one of the remaining three questions. In how many ways can he answer the test, if he must answer five questions in all?
 (a) 55 (b) 56
 (c) 75 (d) 168
 (e) 102

45. In a factory making radioactive substances, it was considered that the three cubes of uranium together are hazardous. So the company authorities decided to have the stack of uranium interspersed with lead cubes. But there is a new worker in a company who does not know the rule. So he arranges the uranium stack the way he wanted. What is the number of hazardous combinations of uranium in a stack of 5?

- (a) 3 (b) 7
 (c) 8 (d) 10
 (e) 9

46. The sum of the roots of a quadratic equation is 12 and the product of the roots is 32. Find the constant term of a cubic equation having two roots same as the quadratic equation and the third root equal to the sum of the roots of the quadratic equation.

- (a) -176 (b) 176
 (c) -384 (d) 384
 (e) none of these

47. If $\triangle ABC$ is an isosceles right angled triangle with area 144 sq. cm and the unequal side of $\triangle ABC$ lies on the line $y = 4$, which of the following can not be a vertex of $\triangle ABC$?

- (a) (1, 16) (b) (16, 4)
 (c) (-16, -8) (d) (-16, -12)
 (e) (8, 16)

48. Find the real roots of $2^{2x+2} - 6^x - 2(3)^{2x+2} = 0$.

- (a) -1/2 (b) -1
 (c) +1 (d) -2
 (e) Both (c) and (d)

49. If the square of an integer has the tens place digit as 7, then what will the square have in its units place?

- (a) 3 (b) 4
 (c) 1 (d) 6
 (e) Cannot be determined

50. A pump can be used either to fill or to empty a tank. The capacity of the tank is 3600 m^3 . The emptying capacity of the pump is $10 \text{ m}^3/\text{min}$ higher than its filling capacity. What is the emptying capacity of the pump if the pump needs 12 more minutes to fill the tank than to empty it?

- (a) $50 \text{ m}^3/\text{min}$ (b) $60 \text{ m}^3/\text{min}$
 (c) $45 \text{ m}^3/\text{min}$ (d) $90 \text{ m}^3/\text{min}$
 (e) $48 \text{ m}^3/\text{min}$

51. Given that $\log_x (\log_y (\log_z p)) = 0$, where each of x, y and z can assume values among 3, 27 and 81 only. If the product of all possible values of ‘p’ is represented in the form of 3^n , then what is the value of ‘n’?

- (a) 400 (b) 480
 (c) 520 (d) 360
 (e) 380

52. A scenery costs Rs. R_1 . A shopkeeper gives a discount of x% and reduces its price to R_2 . He gives a further discount of x% on the reduced price R_2 to reduce it further to R_3 , which reduces it by Rs. 415. A customer bargains with him and takes an x% discount on R_3 and buys the scenery for Rs. 3362.8. Find the original price R_1 of the scenery.

- (a) Rs. 5,349 (b) Rs. 4,213
 (c) Rs. 4,488 (d) Rs. 4,613
 (e) Rs. 4,706.

Directions (Qs. 53-55) : Answer the following questions on the basis of table given below.

COMPANY RESULTS FOR THE FIRST-HALF OF FINANCIAL YEAR XYZ

COMPANY	SALES + OTHER INCOME		GROSS PROFIT		NET PROFIT	
	THIS YEAR	PRE. YEAR	THIS YEAR	PRE YEAR	THIS YEAR	PRE YEAR
Advani-Oerlikon	78.06	81.88	6.55	5.42	2.48	2.33
AP Rayons	37.84	35.17	10.04	6.82	9.23	5.62
Associated Precision	14.79	14.61	3.83	3.51	2.26	2.23
Bharat Hotels	19.96	17.77	7.94	4.65	4.92	1.66
Binani Zinc [Audited]	59.33	75.08	10.07	11.61	3.86	4.50
Cosmo Fertilizer	4.90	3.73	1.16	0.05	0.53	-0.57
DCL Polyester	197.66	184.43	25.90	13.48	17.05	4.58
Digiflex (India)	2.10	0.00	0.45	0.00	0.29	0.00
Drillco Metal Carbides	4.63	4.28	0.10	-0.86	0.02	-0.94
Himatsingka Seide	14.56	13.64	6.28	6.02	4.95	4.78
Indian wood prods	4.90	3.30	0.61	0.45	0.31	0.25
Infosys Technologies	14.01	7.00	4.61	1.91	3.62	1.58
Innovation Medi Equip	1.20	0.00	0.63	0.00	0.53	0.00
Jindal Strips	297.65	273.66	34.25	28.10	20.25	18.25
Lakme	52.86	34.90	4.69	3.50	2.49	1.83
MS Shoes	39.49	8.49	11.44	8.73	11.43	2.32
Menon Bearings	0.92	0.00	0.08	0.00	0.02	0.00
Orde Inds	9.25	2.54	1.18	0.56	0.91	0.41
Pacific Granites	7.87	5.97	3.91	2.23	3.38	1.69
Premier Auto Electric	35.64	29.18	3.02	1.64	1.82	1.16
Preyanshu Indus	2.50	0.00	0.33	0.00	0.22	0.00
Sagar Cements	9.98	9.53	1.46	2.16	0.25	1.40
Shree Krishna Poly	30.07	15.60	4.72	3.30	4.35	2.22
TELCO	1449.82	1328.63	48.15	47.42	18.05	12.05
TIL	47.30	35.98	1.41	0.87	1.21	0.65
TVS-Suzuki	116.13	83.38	9.16	1.93	6.03	-0.17
Volex Electronics	0.69	0.31	0.45	0.17	0.39	0.13
Welcast Steels	3.61	4.31	0.20	0.26	0.08	0.11

53. What is the percentage change from pre-year to this year in gross profit for DCL Polyesters?

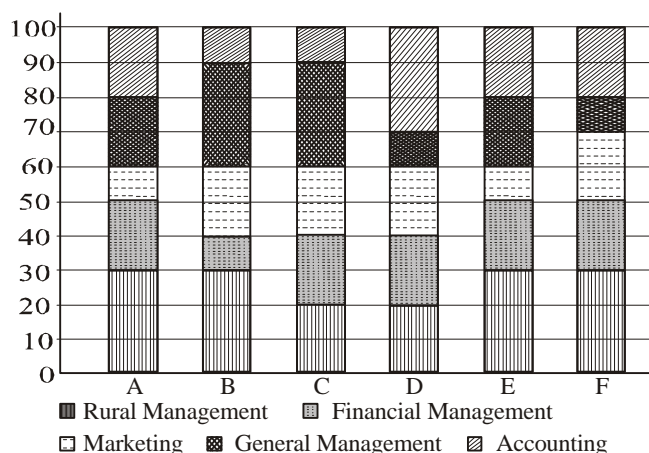
- (a) 89.12 (b) 92.14
c. 93.18 (d) 91.82
(e) 94.32

54. For which of the following companies the percentage increase in each of the three (sales, gross profit and net profit) is more than one-third?

- (a) Pacific Granites (b) MS Shoes
c. Jindal Strips (d) TELCO
(e) Lakme

55. Which of the following statements is/are not true?

- (a) In case of Orde Inds the percentage increase in each of the three components given is more than 100%.
(b) In case of Shree Krishna Poly the percentage increase in all the three components given is less than 100%.
c. The net profit of the company Volex industries will be 3.51 after 2 years if for each of the next two years it increases by the same amount.
(a) a & c only (b) c only
(c) a and b only (d) b & c only
(e) None of these



The table given below shows the total marks scored by each student.

Name of student	Total Marks Scored
A	450
B	600
C	575
D	800
E	650

Directions (Qs. 56- 60) : Refer to bar graph & table given below and answer the questions that follow.

The bar graph given below shows the distribution of the total marks of 6 students across 5 different subjects as a percentage

who is the student who bags this prize?

- (a) A
- (b) B
- (c) D
- (d) F
- (e) E

57. The marks obtained by student A in Marketing is what percentage of the total marks obtained by student B in all subjects put together?

- (a) 7.5%
- (b) 8%
- (c) 9%
- (d) 10%
- (e) 15%

58. The marks obtained by student D in Financial Management is what percentage of the total marks obtained by the students A and C in Marketing?

- (a) 125%
- (b) 100%
- (c) 75%
- (d) 150%
- (e) 120%

59. If there were some mistakes in calculating the percentage distribution as shown in the graph and marks obtained in Financial Management got interchanged with that obtained in General Management and similarly marks obtained in Accounting got interchanged with that obtained in Marketing, and a scholarship is given to a person who scored the highest total marks in Accounting and Rural Management put together, then who got the scholarship?

62. In which year was the ratio deaths to the plague cases the minimum?

- (a) 1995
- (b) 1997
- (c) 1999
- (d) 2001
- (e) 2002

63. In which year was the ratio of deaths as compared to the preceding year?

- (a) 1998
- (b) 2000
- (c) 1999
- (d) 1996
- (e) none of these

- (a) 36.11%
- (b) 46.11%
- (c) 63.8%
- (d) 55%
- (e) 75%

Directions (Qs. 61-63) : The following table gives the number of plague cases and deaths in 7 countries between 1995 and 2002, based on WHO figures. (Figures in brackets shows the number of deaths)

	1995	1996	1997	1998	1999
Botswana	0(0)	0(0)	0(0)	0(0)	103(0)
Tanzania	129(22)	360 (57)	356(34)	547(33)	31(4)
Zaire	0(0)	0(0)	474(160)	309(86)	0(0)
Brazil	64(2)	58(4)	43(0)	25(0)	26(0)
USA	17(2)	10(0)	12(2)	16(0)	4(0)
Myanmar	35(0)	6(6)	5(0)	8(0)	34(2)
Vietnam	137(6)	104(3)	107(6)	196(37)	374(20)
World Total	521(58)	1009(115)	1060(215)	1371(153)	760(103)

61. In which year was the ratio of deaths to the plague cases the maximum?

- (a) 1995
- (b) 1997
- (c) 1999
- (d) 2001
- (e) 2002

Directions (Qs. 64-65) : In the questions, one statement is followed by three conclusions. Select the appropriate answer from the options given below.

- (a) Using the given statement, only conclusion I can be derived.
- (b) Using the given statement, only conclusion II can be derived.
- (c) Using the given statement, only conclusion III can be derived.
- (d) Using the given statement, conclusions, I, II and III can be derived.
- (e) Using the given statement, none of the three conclusions I, II and III can be derived.

64. A_0, A_1, A_2, \dots is sequence of numbers with $A_0 = 1, A_1 = 3$ and $A_t = (t + 1) A_{t-1} - t A_{t-2}$ for $t = 2, 3, 4, \dots$

- Conclusion I : $A_8 = 77$
- Conclusion II : $A_{10} = 121$
- Conclusion III : $A_{12} = 145$

65. A, B, C be real numbers satisfying $A < B < C, A + B + C = 6$ and $AB + BC + CA = 9$

- Conclusion I : $1 < B < 3$
- Conclusion II : $2 < A < 3$
- Conclusion III : $0 < C < 1$

66. The coordinates of P and Q are (0, 4) and (a, 6), respectively. R is the midpoint of PQ. The perpendicular bisector of PQ cuts X-axis at point S(b, 0). For how many integer value(s)

of "a", b is an integer ?

- (a) 3
- (b) 4
- (c) 2
- (d) 1
- (e) 0

Directions (Qs. 67-71) : Answer the questions on the basis of the data given below.

Area/Month	January	February	March
Sale in Bistupur			
Television	900	1050	1200
Ipods	15750	16800	17850
Sales In sakchi			
Television	1800	2100	2400
Ipods	9450	10080	10710
Sales in Kadma			
Television	6300	7350	8400

Ipods 6300 6720 7140
 Units ordered = Units sold + Ending Inventory – Beginning Inventory

All Sales figures are in Rupees thousand.

All other things are constant.

All Rupees figure are in thousand.

67. What was the total value of surcharge paid at the rate of 14% of sales value-by Jamshedpur Electronics, over the period of three months?

(a) Cannot be calculated
 (b) 18522 (c) 18548
 (d) 18425 (e) 18485

68. 10% of sales price of Ipods of 20% of sales price of television contribute to the profits of Jamshedpur Electronics. How much profit did the company earn in the month of January from Bistupur and Kadma from the two products.

(a) 513 (b) 4410
 (c) 3645 (d) 5230
 (e) 5350

69. In the period from January of March consider that Jamshedpur Electronics ordered 7560 units of Ipods for all three areas put together. What was unit sales price of Ipod during the period? The ending inventory was 6120 units and the beginning inventory stood at 5760.

(a) 14.00 (b) 14.65
 (c) 14.80 (d) 13.00
 (e) 13.60

70. For Jamshedpur Electronics beginning inventory was 72 for televisions and 1800 for Ipods and ending inventory was 840 for televisions and 1920 for Ipods in the month of January. How many units of televisions and Ipods did Jamshedpur Electronics order for the month of January? Additional data : In the month of February, 1050 units of televisions and 2400 units of Ipods were sold in all three areas put together.

(a) 1020, 2270 (b) 1020, 2370
 (c) 2270, 1030 (d) 1030, 2370
 (e) 1020, 2280

71. In the period from January to March, Jamshedpur Electronics sold 3150 units of television, having started with a beginning inventory of 2520 units and ending with an inventory of 2880. What was value of order placed (Rupees in thousands) by Jamshedpur. Electronics during the three months period? [Profits are 25% of cost price, uniformly.]

(a) 2808 (b) 26325
 (c) 22320 (d) 25200
 (e) 28080

Directions (Qs. 72-73) : In second year, students at a business school can opt for Systems, Operations, or H R electives only. The number of girls opting for Operations and the number of boys opting for Systems electives is 37. Twenty two students opt for operations electives. Twenty girls opt for Systems and Operations electives. The number of students opting for Systems electives and the number of boys opting for Operations electives is 37. Twenty-five students opt. for HR electives.

72. The number of students in the second year is ____?

(a) 73 (b) 74
 (c) 75 (d) 77
 (e) 76

73. If 20% of the girls opt for HR electives, then the total number of boys in the second year is— ?

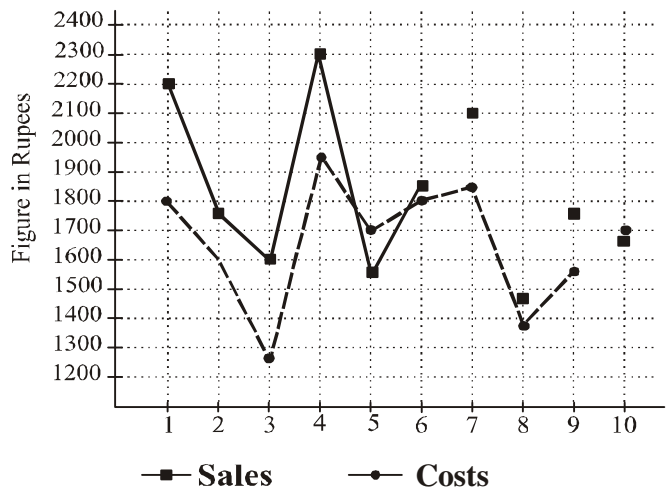
(a) 50 (b) 51
 (c) 52 (d) 53
 (e) 54

Directions (Qs. 74-75) : Questions are followed by two statements labelled as I and II. you have to decide if these statements are sufficient to conclusively answer the question. Choose the appropriate answer from options given below:

- (a) If Statement I alone is sufficient to answer the question.
 (b) If Statement II alone is sufficient to answer the question.
 (c) If Statement I and Statement II together are sufficient but neither of the two alone is sufficient to answer the question.
 (d) If either Statement I or Statement II alone is sufficient to answer the question.
 (e) Both Statement I and Statement II are insufficient to answer the question.
74. The base of a triangle is 60 cms, and one of the base angles is 60° . What is length of the shortest side of the triangle?
 I. The sum of lengths of other two sides is 80 cms.
 II. The other base angle is 45° .
75. A, B, C, D, E and F are six integers such that $E < F$, $B > A$, $A < D < B$. C is the greatest integer.
 I. $E + B < A + D$
 II. $D < F$

Directions (Qs. 76-78) : Answer questions on the basis of the graph given below.

Sales and Costs of XYZ Co.



76. In which month did the company earn maximum profit?

(a) 1 (b) 4
 (c) 3 (d) 2
 (e) 5

77. In which month did the company witness maximum sales growth?

(a) 9 (b) 6
 (c) 4 (d) 7
 (e) 1

78. What were average sales and costs figures for XYZ Co. over the period of ten months?
- (a) 1919, 1751 (b) 1819, 1651
 (c) 1969, 1762 (d) 1719, 1601
 (e) 1619, 1661.

Directions (Qs. 79-82) : Answer questions on the basis of the data given below. Gender Bias is defined as disproportion in percentage of drop-out rate of the genders.

Drop out Rates, in percentage, at Primary, Elementary and Secondary classes.

	Primary (I-V) Classes			Elementary (I-VIII) Classes			(I-X) Classes
	1996-97	39.7	40.9	40.2	54.3	59.5	56.5
1997-98	37.5	41.5	39.2	53.8	59.3	56.1	66.6
1998-99	40.9	41.3	41.5	54.2	59.2	56.3	64.5
1999-00	38.7	42.3	40.3	52.0	58.0	54.5	66.6
2000-01	39.7	41.9	40.7	50.3	57.7	53.7	66.4
2001-02	38.4	39.9	39.0	52.9	56.9	54.6	64.2
2002-03	35.8	33.7	34.8	52.3	53.5	52.8	60.7
2003-04	33.7	28.6	31.5	51.9	52.9	52.3	61.0
2004-05	31.8	25.4	29.0	50.4	51.2	50.8	60.4

79. Based on the data above, choose the true Statement from the following alternatives:

- (a) Gender bias in primary education has consistently decreased over the years.
 (b) Gender bias decrease as students move from primary to secondary classes..
 (c) Total dropout rate decreased consistently for primary classes children from 1996-97 to 2004-05.
 (d) Gender bias was consistently highest for secondary classes.
 (e) None of the above.
80. Assume that girls constituted 55% of the students entering school. In which year, as compared to the previous year, number of boys in secondary education would be more than the number of girls?
- (a) 1997-98 (b) 1996-97
 (c) 2000-01 (d) 1998-99
 (e) 2001-02
81. Suppose, every year 7,000 students entered Class I, out of which 45% were boys. What was the average number (integer value) of girls, who remained in educational system after elementary classes, from 1996-97 to 2004-05?
- (a) 1475 (b) 1573
 (c) 1743 (d) 1673
 (e) 3853
82. Suppose the total number of students in 1996-97 were 1,000 and the number of students increased every year by 1000, up to 2004-05. The total number of drop outs from primary classes, from 1996-97 to 2004-05 were (approximately)?
- (a) 18500 (b) 19500
 (c) 16000 (d) 24500
 (e) 11500

SECTION - III : VERBAL AND LOGICAL ABILITY

DIRECTIONS (Qs. 83-87) : Choose the appropriate words to fill in the blanks.

83. Mark Twain was responsible for many striking, mostly cynical____, such as "Always do right. That will gratify

some of the people, and astonish the rest." _____ can sometime end up as_____, but rarely would someone use them as an_____ .

- (a) epitaphs, Epitaphs, epigrams, epigraph
 (b) epigraphs, Epigraphs, epitaphs, epigraph
 (c) epigrams, Epitaphs, epigrams, epigraph
 (d) epigrams, Epigrams, epigraphs, epitaph
 (e) epitaphs, Epitaphs, epigraphs, epigram
84. A candidate in the medical viva voce exam faced a tinge of intellectual _____ when asked to spell the _____ gland. The fact that he carried notes on his person would definitely be termed as _____ by faculty, but may be termed as _____ by more generous sections of students.
- (a) ambivalence, prostrate, amoral, immoral
 (b) ambivalence, prostate, immoral, amoral
 (c) ambiguity, prostrate, amoral, immoral

- (d) ambivalence, prostrate, immoral, amoral
 (e) ambiguity, prostrate, immoral, amoral
85. It is not democratic that the parliament should be _____ on issues and resort to passing _____ rather than have an open debate on the floor of the house.
- (a) quite, quite, ordinances
 (b) quite, quiet, ordnances
 (c) quiet, quiet ordnances
 (d) quite, quiet, ordinances
 (e) quiet, quiet, ordinances
86. In a case of acute _____, _____ membranes secrete excessive_____.
- (a) sinusitis, mucous, mucus
 (b) sinus, mucous, mucous
 (c) sinus, mucus, mucous
 (d) sinus, mucous, mucus
 (e) sinusitis, mucus, mucous
87. If a person makes the statement: "I never speak the truth. " The person can be said to be _____ .
- (a) speaking the truth.
 (b) making a logically contradictory statement.
 (c) lying.
 (d) lying as well as speaking the truth
 (e) partially speaking the truth and partially lying.

DIRECTIONS (Qs. 88-90): Carefully read the statements in the questions below and arrange them in a logical order.

88. 1. So too it is impossible for there to be proposition of ethics. Proposition cannot express that is higher.
 2. The sense of the world must lie outside the world. In the world everything is as it is, and everything happens as it does happen: in it no value exists and if it did exist, it would have no value. If there is any value that does have a value, it must lie outside the whole sphere of what happens and is the case. For all that happens and is the case is accidental. What makes it non-accidental cannot lie within the world, since if it did it would itself be accidental. It must lie outside world.
 3. It is clear that ethics cannot be put into words. Ethics is transcendental.
 4. All propositions are of equal value.
- (a) 2-1-3-4 (b) 1-3-4-2
 (c) 4-3-1-2 (d) 3-1-2-4
 (e) 4-2-1-3
89. 1. The fact all contribute only to setting the problem, not to its solution.
 2. How things are in the world is a matter of complete indifference for what is higher. God does not reveal himself in the world.
 3. To view the world sub specie aetemi is to view it as a whole—a limited whole. Feeling the world as a limited

- whole—it is this that is mystical.
4. It is not how things are in the world that is mystical, but that it exists.
- (a) 1-2-3-4 (b) 2-1-4-3
 (c) 2-1-3-4 (d) 3-1-4-2
 (e) 3-4-1-2
90. 1. The operation is what has to be done to one proposition in order to make or the other of it.
 2. Structure of proposition stands in internal relations to one another.
 3. In order to give prominence to these internal relations we can adopt the following mode of expression: we can represent a proposition as the result of an operation that produces it out of other propositions (which are bases of the operation) .
 4. An operation is the expression of a relation between the structures of its result and of its bases.
- (a) 1-2-3-4 (b) 4-3-1-2
 (c) 2-1-3-4 (d) 4-1-2-3
 (e) 2-3-4-1

Directions (Qs. 91-97): Analyse the following passage and provide an appropriate answer for questions.

India is renowned for its diversity. Dissimilitude abounds in every sphere from the physical elements of its land and people to the intangible workings of its beliefs and practices. Indeed, given this variety, India itself appears to be not a single entity but an amalgamation, a "constructs" arising from the conjoining of innumerable, discrete parts. Modern scholarship has, quite properly, tended to explore these elements in isolation. (In part, this trend represents the conscious reversal of the stance taken by an earlier generation of scholars whose work reified India into a monolithic entity a critical element in the much maligned "Orientalist" enterprise.) Nonetheless, the representation of India as a singular "Whole" is not an entirely capricious enterprise: for India is an identifiable entity, united by if not born out of certain deep and pervasive structures. Thus, for example, the Hindu tradition has long maintained a body of mythology that weaves the disparate temples, gods, even landscapes that exist throughout the subcontinent into a unified, albeit syncretic, whole.

In the realm of thought, there is no more pervasive, unifying structure than *karma*. It is the "doctrine" of "low" that ties actions to results and creates a determinant link between an individual's status in this life and his or her fate in future lives. Following what is considered to be its appearances in the Upanishads, the doctrine reaches into nearly every corner of Hindu thought. Indeed, its dominance is such in the Hindu world view the same time, life-affirming and life-negative functions; for just as it defines the world in terms of the "positive" function of delineating a doctrine of rewards and punishments, so too it defines the world through its "negative" function of delineating a doctrine of rewards and punishments, so too is define the world through its "negative" representation of action as an all but inescapable trap, an unremitting cycle of death and rebirth.

Despite – or perhaps because of– *karma's* ubiquity, the doctrine is not easily defined. Wendy Doniger O'Flaherty reports of a scholarly conference devoted to the study of *karma* that although the participants admitted to a general sense of the

doctrine's parameters, considerable time was in a "lively but ultimately vain attempt to define *karma* and rebirth". The base meaning of the term "*karma*" (or, more precisely, in its Sanskrit stem form, *karman* a neuter substantive) is "action". As a doctrine, *karma* encompasses a number of quasi-independent concepts: rebirth (*punarjanam*), consequence (*phala*, literally "fruits," a term that suggests the "ripening" of action into consequences), and the valuation or "ethic-ization" of acts, qualifying them as either "good" (*punya* or *sukanna*) or "bad" (*papam* or *duskarman*).

In a general way, however, for at least the past two thousand years, the following (from the well known text, the Bhagavata Purana) has held true as representing the principal elements of the *karma* doctrine: "The same person enjoys the fruit of the same sinful or a meritorious act in the next world in the same manner and to the same extent according to the manner and extent to which that (sinful or meritorious) act has been done by him in this world. " Nevertheless, depending on the doctrine's context, which itself ranges from its appearance in a vast number of literary sources to its usage on the popular level, not all these elements may be present (though in a general way they may be implicit).

91. "Reify" in the passage means:
- Reversal of stance
 - Unitary whole
 - Diversity
 - Unity in diversity
 - To make real out of abstract
92. "Ethic-ization" in the passage means
- Process of making something ethical
 - Judging and evaluation
 - Converting unethical persons into ethical
 - Teaching ethics
 - None of the above
93. Consider the following statements:
- Meaning of *karma* is contextual.
 - Meaning of *karma* is not unanimous.
 - Meaning of *karma* includes many other quasi-independent concepts.
 - Karma* also means action and their rewards.
- Which of the above statements are true?
- 1,2,3
 - 2,3,4
 - 1,3,4
 - None of the above
 - All the four are true
94. The base meaning of *karma* is:
- reward and punishment.
 - only those actions which yield a "phala".
 - ripening of actions into consequences.
 - any action.
 - None of the above
95. As per the author, which of the following statements is wrong?
- India is a diverse country.
 - Doctrine of *karma* runs across divergent Hindu thoughts.
 - Doctrine of *karma* has a rich scholarly discourse.
 - Modern scholars have studied Hinduism as a syncretic

whole.

- (e) Scholars could not resolve the meaning of *karma*.
96. Which of the following, if true, would be required for the concept of *karma* as defined in Bhagavata Purana— to be made equally valid across different space-time combinations?
- Karma* is judged based on the observers, perception, and hence the observer is a necessary condition for its validity.
 - Karma* is an orientalist concept limited to oriental countries;
 - Each epoch will have its own understanding of *karma* and therefore there can not be uniform validity of the concept of *karma*.
 - The information of the past actions and the righteousness of each action would be embodied in the individual.
 - Each Space-time combination would have different norms of righteousness and their respective expert panels which will judge each action as per those norms.
97. The orientalist perspective, according to the author:
- Viewed India as a country of diversity.
 - Viewed India both as single and diverse entity.
 - Viewed India as land of *Karma*.
 - Viewed India in the entirety.
 - Viewed India as if it was a single and unitary entity devoid of diversity.

DIRECTIONS (Qs. 98-101): Analyse the passage given and provide an appropriate answer for questions.

Enunciated by Jung as an integral part of his psychology in 1916 immediately after his unsettling confrontation with the unconscious, the transcendent function was seen by Jung as uniting the opposites, transforming psyche, and central to the individuation process. It also undoubtedly reflects his personal experience in coming to terms with the unconscious. Jung portrayed the transcendent function as operating through symbol and fantasy and mediating between the opposites of consciousness and the unconscious to prompt the emergence of a new, third posture that transcends the two. In exploring the details of the transcendent function and its connection to other Jungian constructs, this work has unearthed significant changes, ambiguities, and inconsistencies in Jung's writings. Further, it has identified two separate images of the transcendent function: (1) the narrow transcendent function, the function or process within Jung's pantheon of psychic structures, generally seen as the uniting of the opposite of consciousness and the unconscious from which a new attitude emerges; and (2) the expansive transcendent function, the root metaphor for psyche or being psychological that subsumes Jung's pantheon and that apprehends the most fundamental psychic activity of interacting with the unknown or other. This book has also posited that the expansive transcendent function, as the root metaphor for exchanges between conscious and the unconscious, is the wellspring from whence flows other key Jungian structures such

as the archetypes and the self, and is the core of the individuation process. The expansive transcendent function has been explored further by surveying other schools of psychology, with both depth and non-depth orientations, and evaluating the transcendent function alongside structures or processes in those other schools which play similar mediatory and/or transitional roles.

98. The above passage is most likely an excerpt from:

- (a) A research note
- (b) An entry on a psychopathology blog
- (c) A popular magazine article
- (d) A scholarly treatise
- (e) A newspaper article

99. It can be definitely inferred from the passage above that

- (a) The expansive transcendent function would include elements of both the Consciousness and the Unconscious.
- (b) Archetypes emerge from the narrow transcendent function.
- (c) The whole work, from which this excerpt is taken, primarily concerns itself with the inconsistencies in Jung's writings.
- (d) The transcendent is the core of the individuation process.
- (e) Jung's pantheon of concepts subsumes the root metaphor of psyche.

100. A comparison similar to the distinction between the two images of the transcendent function would be:

- (a) raucous: hilarious
- (b) synchronicity: ontology
- (c) recession: withdrawal
- (d) penurious: decrepit
- (e) none of the above

101. As per the passage, the key Jungian structure – other than the Self – that emerges from the expansive transcendent function may not be expressed as a(n) :

- (a) Stereotype
- (b) Anomaly
- (c) Idealized model
- (d) Original pattern
- (e) Epitome

DIRECTIONS (Qs.102-104): Analyse the passage given and provide an appropriate answer for questions.

Deborah Mayo is a philosopher of science who has attempted to capture the implications of the new experimentalism in a philosophically rigorous way. Mayo focuses on the detailed way in which claims are validated by experiment, and is concerned with identifying just what claims are borne out and how. A key idea underlying her treatment is that a claim can only be said to be supported by experiment if the various ways in which the claim could be as fault have been investigated and eliminated. A claim can only be said to be borne out by experiment, and a severe test of a claim, as usefully construed by Mayo, must be such that the claim would be unlikely to pass it if it were false.

Her idea can be explained by some simple examples. Suppose Snell's law of refraction of light is tested by some very rough experiments in which very large margins of error are attributed to the measurements of angles of incidence and refraction, and suppose that the results are shown to be compatible with the law within those margins of error. Has the law been supported by experiments that have severely tested it? From Mayo's perspective

the answer is "no", because, owing to the roughness of the measurements, the law of refraction would be quite likely to pass this test even if it were false and some other law differing not too much from Snell's law true. An exercise I carried out in my school-teaching days serves to drive this point home. My students had conducted some not very careful experiments to test Snell's law. I there presented them with some alternative laws of refraction that had been suggested in antiquity and mediaeval times, prior to the discovery of Snell's law, and invited the students to test them with the measurements they had used, to test Snell's law; because of the wide margins of error they had attributed to their measurements, all of these alternative laws pass the test. This clearly brings out the point that the experiments in question did not constitute a severe test of Snell's law. The law would have passed the test even if it were false and one of the historical alternatives true.

102. Which of the following conclusion can be drawn from the passage?

- (a) Precise measurement is a sufficient condition to ensure validity of conclusions resulting from an experiment.
- (b) Experimental data might support multiple theoretical explanations same time, hence validity of theories needs to be tested further.
- (c) Precise measurement is both a necessary and sufficient condition to ensure validity of conclusions resulting from an experiment.
- (d) Precise measurement along with experimenter's knowledge of the theory underpinning the experiment is sufficient to ensure the validity of conclusions drawn from experiments.
- (e) All of these

103. As per Mayo's perspective, which of the following best defines the phrase "scientific explanation"?

- (a) One which is most detailed in its explanation of natural phenomena.
- (b) One which survives examinations better than other explanations.
- (c) One which has been thoroughly tested by scientific experts.
- (d) One which refutes other explanations convincingly.
- (e) All of these

104. The author's use of Snell's law of refraction to illustrate Mayo's perspective can best said to be

- (a) Contrived
- (b) Premeditated
- (c) Superfluous
- (d) Inadequate
- (e) Illustrative

Directions (Qs. 105-106): Go through the caselets below and answer the questions that follow.

According to recent reports, CEOs of large organisations are paid more than CEOs of small organisations. It does not seem fair that just because a CEO is heading a big organisation she/he should be paid more. CEOs' salary should be related to performance, especially growth in terms of sales and profits.

Ofcourse, big organisations are more complex than the small, but all CEOs require significant amount of energy and time in managing organisations. There is no proof that CEOs of big organisations are more stressed than CEOs of small organisations. All CEOs should be paid according to their performance.

105. A person seeking to refute the argument might argue that
- CEOs should be paid equally.
 - Managing big organisation is more challenging than small.
 - If CEOs of small companies perform well, the company would become big and so would be CEOs' salary.
 - CEOs, who travel more should be paid more.
 - Highly qualified CEOs should be paid more because they have acquired difficult education.
106. Which of the following, if true, would strengthen the speaker's argument?
- CEOs of small organisations come from good educational background.
 - CEOs of big organisations are very difficult to hire.
 - A few big family businesses have CEOs from within the family.
 - CEOs in big organisation take much longer to reach top, as compared to their counterparts in small organisations.
 - Big organisations contribute more towards moral development of society.

Directions (Qs. 107-108): Hindi ought to be the official language of India. There is no reason for the government to spend money printing documents in different languages, just to cater to people who cannot read/write Hindi. The government has better ways to spend tax payers' money. People across India should read/write Hindi or learn it at the earliest.

107. Which of the following, if true, would weaken the speaker's argument the most?
- The government currently translates official documents into more than eighteen languages.
 - Hindi is the most difficult language in the world to speak.
 - Most people who travel across India learn Hindi within five years.
 - Making Hindi the official language is a politically unpopular idea.
 - People who are multilingual usually pay maximum taxes.
108. United Nations members contribute funds, proportionate to their population, for facilitating smooth functioning of the UN. By 2010, India, being the most populous nation on the planet, would contribute the maximum amount to the UN. Therefore, official language of United Nations should be changed to Hindi.

Which of the following is true?

- The point above contradicts the speaker's argument.
- The point above is similar to speaker's argument.

- The point above concludes speaker's argument.
- The point above strengthens the speakers' argument.

Directions (Qs. 109-110): The Bistupur Sakchi corner needs a speed breaker. Loyola school children cross this intersection, on their way to the school, and many a times do not check out for traffic. I get to read regular reports of cars and other vehicles hitting children. I know that speed-breakers are irritating for drivers, and I know that children cannot be protected from every danger, but this is one of the worst intersections in town. There needs to be a speed-breaker so that vehicles have to slow down and the children be made safer.

109. Which of the following arguments is used in the above passage?
- Emotive – referring to the safety of children to get people interested
 - Analogy – comparing the intersection to something dangerous
 - Statistical analysis – noting the number of children hit by vehicles
 - Personalization – telling the story of one child's near accident at the intersection
 - Attack – pointing out people who are against speed-breakers as being uncaring about children.
110. According to a recent research conducted by the district road planning department, ten per cent students come with parents if cars, twenty per cent students use auto-rickshaws, twenty per cent students use taxis, forty per cent students use the school buses and ten percent students live in the hostel inside the school. Which of the following is true about the above paragraph?
- It extends speakers' argument using analogy.
 - It contradicts the speakers' argument using statistical data.
 - It extends the speaker's argument using statistical data.
 - It is similar to speaker's argument.
 - It concludes speaker's argument by using personalisation.

Directions (Qs. 111-112): History, if viewed as a repository not merely of anecdotes or chronology, could produce a decisive transformation in the image of science by which we are now possessed. That image has previously been drawn, even by scientists themselves, mainly from the study of finished scientific achievements as these are recorded in the classics and, more recently, in the textbooks from which each new scientific generation learns to practice its trade.

111. Which of the following best summarises the above paragraph?
- Scientific achievements are recorded in classics and text books.
 - Different ways of looking at history can produce altogether different knowledge.
 - History of science can be inferred from finished scientific achievement.
 - Text books may be biased.
 - All of the above.
112. Which of the following statements is the author most likely to agree with?

- (a) History of science presents a scientific way of looking at scientific developments and thus contributes to progress in science.
- (b) History of science should contain only the chronology of the scientific achievements.
- (c) More number of scientific theories results in more number of publications, which benefits publishers.
- (d) History of science should purposely present different images of science to people.
- (e) History of science can present multiple interpretations to people regarding the process of scientific developments.

Directions (Qs. 113-118) : Analyse the passage given and provide and appropriate answer for questions.

Every conscious mental state has a qualitative character that we refer to as mood. We are always in a mood that is pleasurable or unpleasurable to some degree. It may be that bad moods relate to their being too positive reinforcement in a person's current life and too many punishments. In any case, moods are distinguished from emotions proper by not being tied to any specific object. But, this distinction is now watertight, in that emotions need not be directed at objects that are completely specific (we can be angry just at people generally) while there is always a sense of a mood having general objective like the state of the world at large. Moods manifest themselves in positive or negative feelings that are tied to health, personality, or perceived quality of life. Moods can also relate to emotions proper, as in the aftermath of an emotional incident such as the failure to secure a loan. A mood on this basis is the mind's judgment on the recent past. For Goldie, emotion can bubble up and down within a mood, while an emotion can involve characteristics that are non-object specific.

What is important for marketing is that moods colour outlook and bias judgements. Hence the importance of consumer confidence surveys, as consumer confidence typically reflects national mood. There is mood – congruence when thoughts and actions fall in line with mood. As Goleman says, there is a "constant stream of feeling" that runs "in perfect to our steam of thought". Mood congruence occurs because a positive mood evokes pleasant associations that lighten subsequent appraisals (thoughts) and actions, while a negative arouses pessimistic associations that influence future judgment and behaviour. When consumers are in a good mood, they are more optimistic about buying more confident in buying, and much more willing to tolerate things like waiting in line. On the other hand, being in a mood makes buying behaviour in the "right mood" by the use of music and friendly staff or, say, opens bakeries in shopping malls that delight the passer-by with the smell of fresh bread.

Thayer views moods as a mixture of biological and psychological influences and, as such, a sort of clinical thermometer, reflecting all the internal and external events that influence us. For Thayer, the key components of mood are energy and tension in different combinations. A specific mixture of energy and tension, together with the thoughts they influence, produces moods. He discusses four mood states:

- *Calm-energy*: he regards this as the optimal mood of feeling good.
- *Calm-tiredness*: he regards this as feeling a little tired

without any stress, which can be pleasant.

- *Tense - energy*: involves a low level of anxiety suited to a fight or flight disposition.
- *Tense-tiredness*: is a mixture of fatigue and anxiety, which underlies the unpleasant feeling of depression.

People generally can "feel down" or "feel good" as a result of happenings in the world around them. This represents the national mood. People feel elated when the national soccer team wins an international match or depressed when their team has lost. An elated mood of calm-energy is an optimistic mood, which is good for business. Consumers, as socially involved individuals, are deeply influenced by the prevailing social climate. Marketers recognise the phenomenon and talk about the national mood being, say for or against conspicuous consumption. Moods do change, though. Writing early in the nineteenth century, Toqueville describes an American elite embarrassed by the ostentation of material display; in the "Gilded Age", sixty years later, many were only too eager to embrace a materialistic vulgarity. The problem lies in anticipating changes in national mood, since a change in mood affects everything from buying of equities to the buying of houses and washing machines. Thayer would argue that we should be interested in national events that are likely to produce a move toward a tense-tiredness state or toward a calmenergy state, since these are the polar extremes and are more likely to influence behaviour. Artists sensitive to national moods express the long-term emotional journey from Charles Dickens's depiction of the death of little Nell to Oscar Wilde's cruel flippancy about it. "One would have to have a heart of stone not to laugh at the death of little Nell", which reflects the mood change from high Victorian sentimentality to the acerbic cynicism of the end of the century, as shown in writers like Thomas Hardy and artists like Aubrey Beardsley.

Whenever the mind is not fully absorbed, consciousness is no longer focused and ordered. Under such conditions the mind falls into dwelling on the unpleasant, with a negative mood developing.

Csikszentmihalyi argues that humans need to keep consciousness fully active is what influences a good deal of consumer behaviour. Sometimes it does not matter what we are shopping for – the point is to shop for anything, regardless, as consuming is one way to respond to the void in consciousness when there is nothing else to do.

113. Which one of the following statements best summarizes the above passage?
- (a) The passage highlights how moods affect nations.
 - (b) The passage draws distinction between moods and emotions.
 - (c) Some writers influenced national moods through their writings.
 - (d) Thayer categorised moods into four states.
 - (e) The passage highlights the importance of moods and emotions in marketing.
114. What is "moods congruence"?
- (a) When moods and emotions are synchronised.
 - (b) When emotions are synchronous with actions and thoughts.
 - (c) When moods are synchronous with thoughts and actions.
 - (d) When moods are synchronous with thoughts but not with action.

- (e) When moods are synchronous with action but not with thought.
115. Implication and Proposition are defined as follows:
Implication: a statement which follows from the given text.
Proposition: a statement which forms a part of the given text.
 Consider the two statements below and decide whether they are implications or propositions.
- I. The marketers should understand and make use of moods and emotions in designing and selling products and services.
- II. Consuming is nothing but way of filling the void in consciousness.
- (a) Both statements are implications.
 (b) First is implication, second is proposition.
 (c) Both are propositions.
 (d) First is proposition, second is implication.
 (e) Both are neither implication nor proposition.
116. Which statements from the ones given below are correct?
- (1) In general, emotions are object specific
 (2) In general, moods are nor object specific
 (3) Moods and emotions are same
 (4) As per Thayer, moods are a mix of biological and psychological influences
- (a) 1,2,4 (b) 1,2,3
 (c) 2,3,4 (d) 2,4,3
 (e) All four are right
117. The statement "Moods provide energy for human actions" is.
- (a) always right.
 (b) always wrong.
 (c) not derived from the passage.
 (d) contradictory
 (e) sometimes right.
118. Which of the following is the closest to "conspicuous consumption" in the passage?
- (a) Audible consumption
 (b) Consumption driven by moods and emotions
 (c) Socially responsible consumption
 (d) Private but not public consumption
 (e) Consumption of material items for impressing others

Directions (Qs. 119-120): Go through the caselets below and answer the questions that follow.

119. The author reflects on the concept of Blue Ocean Strategy. He explains that this concept delivers an instinctive framework for developing uncontested market space and making the competition irrelevant. The author remarks that Blue Ocean Strategy is about having the best mix of attributes that result in creation of uncontested market space and high growth, and not about being the best.

The above paragraph appears to be an attempt at

- (a) defining Blue Ocean Strategy.
 (b) developing the framework for Blue Ocean Strategy.
 (c) reviewing an article or book on Blue Ocean Strategy.
 (d) highlighting how Blue Ocean strategy leads to better returns.
 (e) None of above
120. Goodricke Group Ltd is planning to give top priority to core competence of production and marketing of tea in 2007. The company intends to increase the production of orthodox varieties of tea. Goodricke is planning to invest Rs. 10 crore to modernise the factories. The company has announced a net profit of Rs. 5.49 crore for 2006 as against Rs. 3.76 crore in 2005.
- Which of the following can be deduced from the caselet?
- (a) Core competence can be used for furthering company's interests.
 (b) Production and marketing is core competence of Goodricke Group.
 (c) Increase in production of existing products enhances core competence.
 (d) Core competence leads to modernisation.
 (e) Goodricke has given top priority to production because it has earned net profits of Rs. 5.49 crore.

PART B

ESSAY-WRITING : Write an essay on the following topic :
Consequences of Gender Imbalances - The Third World War

SOLUTIONS

1. (e) (a) 75 units of Alpha I requires $75 \times 2 = 150$ hrs. 4 units of Beta I requires $4 \times 3 = 12$ hrs. So a total of $150 + 12 = 162$ hrs in day shift which is not possible as available hours are 160. So not possible.
- (b) It is not possible as the day shift hours are exceeding the available hours again.
- (c) 74 units of Alpha I and 4 units of Beta I in day shift require $74 \times 2 + 4 \times 3 = 160$ hours, which suffices the requirement. Again the night shift requires $25 \times 4 + 10 \times 1.5 + 30 + 2.5 = 100 + 15 + 75 = 190$ which satisfies the available hours (192).
- (d) Again day shift will require $74 \times 2 + 5 \times 3 = 163$ which exceeds the available 160 hours.

2. (b) Total available raw material (Omega 34) = 350 kg.
Omega-34 consumption.
100 units of Alpha I requires 100 kg
40 units of Beta I requires $40 \times 2 = 80$ kg.
10 units of Gamma I requires $10 \times 2.5 = 25$ kg.
Total Omega-34 consumption = $100 + 80 + 25 = 205$

$$\therefore \% \text{ utilisation} = \frac{205}{350} \times 100 = 58.58\%$$

3. (e)
- | | AI | BI | GI |
|-------|--------|------------------------|----------|
| Day | 10 hrs | | 150 hrs |
| Night | | $192 - 53 = 139$ units | 53 units |

$$\text{Day shift: - GI manufactured} = \frac{150}{1} = 150$$

$$\text{AI manufactured} = \frac{10}{2} = 5 \text{ units}$$

Hence it is clear from the above information that a total of $150 + 53 = 203$ units of GI are being manufactured which exceeds the limitation of atmost 150 units of GI.

4. (e) The minimum possible amount of AI which can be produced is 50 units and it will require 50 kg of Omega 34. The remaining amount of Omega 34 of 300 kg is more than sufficient to manufacture any of the items given in option a, b, c and d.

(e) I, II and III

5. (c)
- | | AI | BI | GI |
|-------|----|----|----|
| Day | 65 | 4 | 15 |
| Night | 20 | 20 | 40 |

Machine Time utilisation:-

$$\text{Day} = 65 \times 2 + 4 \times 3 + 15 \times 1 = 157$$

$$\text{Night} = 20 \times 2.5 + 20 \times 4 + 40 \times 1.5 = 190$$

$$\therefore \text{unutilised time} = 160 + 192 - (157 + 190) = 5$$

Cost of Production:

$$\text{Raw material cost} = (65 + 20) \times 1 \times 2 + (4 + 20) \times 2 \times 2 + (15 + 40) \times 2.5 \times 2 = 541 \text{ Rs.}$$

Which itself is more than Rs. 54 so no need to calculate the machine cost.

Raw material utilisation

$$\begin{aligned} \text{Omega 34 consumed} &= (65 + 20) \times 1 + (4 + 20) \times 2 + (15 + 40) \times 2.5 \\ &= 85 + 48 + 137.5 = 270.5 \text{ kg.} \end{aligned}$$

$$\% \text{ raw material unutilised} = \frac{350 - 270.5}{350 \times 100} = 22.71\%$$

So I and III are correct.

From the 1st statement,

$$(2 @ 3\% 6)^2 \$ 1 = 143 \text{ means}$$

$(2 @ 3\% 6)^2$ is a positive square so \$ is either '+' or '-'.

As 142 is not a square but 144 is, so \$ is '-'.

$$\text{Also, } 2 @ 3\% 6 = 12$$

So @ is 'x' and % '+'.
Further from (4),

$$9 \# 3 @ 2 = 6$$

$$\Rightarrow 9 \# 3 \times 2 = 6$$

$$\text{So \# is '+'}.$$

6. (a) $4 @ (16 \$ 7) \# [(8 \$ 1) \% 2]$
 $= 4 \times (16 - 7) \div [(8 - 1) + 2]$
 $= 4 \times 9 \div 9 = 4$

7. (c) $a^2 @ 5 = (a \% 8)^2 \# 5$
 $\Rightarrow a^2 \times 5 = (a + 8)^2 \div 5$
 $\Rightarrow 25a^2 = (a + 8)^2$
 $\Rightarrow (5a)^2 = (a + 8)^2$
 $\Rightarrow 5a = a + 8 \text{ or } 5a = -a - 8$
 $\Rightarrow a = 2 \text{ or } a = \frac{4}{3}$

8. (c) $a \rightarrow (6 \# 2) \% 1 = (6 \div 2) + 1 = 4$
 $b \rightarrow 8 @ \# 12 = 8 \times 9 \div 12 = 6$
 $\rightarrow 7 \% 5 \% 1 = 7 + 5 + 1 = 13$

Which is a prime number

$$d \rightarrow 7 \$ 4 \$ 2 = 7 - 4 - 2 = 1$$

Which is not a prime number

Note: 1 is neither prime nor composite

9. (d) $1 @ 0 \% 1 \$ 0 \% 1 = 1 \times 0 + 1 - 0 + 1 = 2$

10. (a) Let Amar plays Doodoo starting with Rs x. He pays Rs. 50 for the game.

The remaining amount (x - 50) gets doubled, i.e. $2(x - 50)$.

Following this for 4 rounds, he is left with Rs. 100. So,

$$2(2(2(2(x - 50) - 50) - 50) - 50) = 100$$

$$\Rightarrow 2(2(2(x - 50) - 50) - 50) - 50 = 50$$

$$\Rightarrow 2(2(x - 50) - 50) - 50 = \frac{50 + 50}{2} = 50$$

$$x - 50 = \frac{50 + 50}{2} = 50$$

$$\Rightarrow x = 100$$

11. (d) Let Akbar started playing Torry with Rs. y .
He pays Rs. 50 for the game
The remaining amount ($y - 50$) gets
Tripled, i.e. $3(y - 50)$.
Following this for 3 round he is left with Rs. 75.
So, $3(3(3(y - 50) - 50) - 50) = 75$

$$\Rightarrow 3(3(3(y - 50) - 50) - 50) = \frac{75}{3} = 25$$

$$\Rightarrow 3(y - 50) - 50 = \frac{25 + 50}{3} = 25$$

$$\Rightarrow y - 50 = \frac{50 + 25}{3} = 25$$

$$\Rightarrow y = 75$$

12. (c) None of the two were in profit/ loss as they could manage only what they started with.
13. (b) Amar's amount after paying for the 3rd round
 $= 2(2(2(100 - 50) - 50) - 50) - 50$
 $= 2(2(100 - 50) - 50) - 50$
 $= 2(100 - 50) - 50$
 $= 100 - 50 = 50$
14. (c) Akbar's amount at the beginning of 3rd round is the same as the amount after the end of round 2.
 $= 3(3(75 - 50) - 50)$
 $= 3(75 - 50) = 75$

15-18. Let us compile the available information, with (R1), (R2), (R3) and (R4) being the reasons in that order, presented in the situation.

Boy	Girl	Reason	Chocolate
A		R1(3)	Perk(3)
B	not C(5)		
C			
D		R4(6)	
Not B	C(5 & 6)		Kit kat (5)
Not D			

[NOTE: The number in bracket indicates the reference number of the statements in the directions from where the information has been derived.]

- Now as Chhaya, who received a Kit Kat, and is not a girl friend of Bikash and Dinesh, can only be the girl friend of Chaitanya because Amit's girl friend received a Perk.
- Beena is Bikash's girl friend as he did not get her movie tickets (R2). From the above table only Bikash and Chaitanya did not have the reason (R2). Further Chaitanya is already fixed with Chhaya. Also, we now know that Chaitanya was the guy who did not turn up for the date (R3).
- From statement 1, Dinesh or Chaitanya (R3) did not gave Bar One, so Bikash gave Bar One, as Amit gave Perk (see table). Hence Dinesh gave a Five Star as Chhaya (Chaitanya's girl friend) received a Kit-Kat.
- From statement 2, Dineka can not be Amit's girl friend as it says, 'Neither Dineka nor the girl whose boy friend came late'. So Aasha is Amit's girl friend.

Thus the table can be completed as:

Boy	Girl	Reason	Chocolate
A	A	R1	Perk
B	B	R2	Bar One
C	C	R3	Kit kat
D	D	R4	Five Star

15. (a) Aasha is Amit's girl friend.
16. (b) Beena received Bar One.
17. (b) Chaitanya is Chhaya's boy friend.
18. (a) Aasha was mad at her boy friend because he came late (R1).
19. (b) Average cost of each bottle
 $= 5[3^2 + 3^2 + 4^2 + 5^2 + 3^2 + 4^2 + 3^2]$
 $= 5[9 + 9 + 16 + 25 + 9 + 16 + 9]$
 $= 5 \times 93 = 465$
 Average cost of the project
 $= 465 \times 800 = 372000$.
20. (b) Profit % = $\frac{510 - 465}{465} \times 100$
 $= \frac{45}{465} \times 100 = 9.67 \approx 10\%$
21. (d) As the duration of 5 processes is changed the new cost = Average cost + cost incurred in change
 $= 5[2^2 + 3^2 + 2^2 + 3^2 + 2^2 + 4^2 + 2^2]$
 $+ 15[2^3 + 2^3 + 3^3 + 2^3 + 2^3]$
 $= 5[4 + 9 + 4 + 9 + 4 + 16 + 4] + 15[8 + 8 + 27 + 8 + 8]$
 $= 5 \times 50 + 15 \times 59$
 $= 250 + 885 = 1135$
 Profit % = $\frac{510 - 1135}{1135} \times 100$
 $= \frac{-625}{1135} \times 100 = -55\%$.
22. (a) c and d are out of context and meaningless. 'b' was not the reason of his grievance. 'a' is the appropriate choice as Ram Lal was disgruntled with the way the wage contract was forced on him.
23. (c) Mr. Thakur ignored the Personnel department so they are justified over their anger with Mr. Thakur. Mr. Thakur discussed the wages with the supervisors directly and ignored their bosses. Hence the Production department has justified reasons for their anger. Mr. Thakur did not discuss the financial feasibility of the rewards he build in the wage contracts with the Finance department.
24. (c) The biggest problem with Mr. Thakur which emerges from the situation is the lack of problem solving skills. He did not got into the depth of the problem, entered into personal discussions with employees without the feedback of their seniors shows his weakness in problem solving.

25. (c) The president thinks that by binding the employees in legal contracts would result in better performance.
26. (a) If Mr. Thakur would have postponed the decision for the night shift supervisors a lot of politics might have erupted which could have led to maximum organisational impact. So he should have created a process for night shift supervisors so they could have interacted with him. An open door policy for all employees would have even lesser organisational impact. The least impact would have been in the case if the personnel department had done the negotiations.
27. (a) Mr. Thakur felt that by dealing directly with individuals, he could portray the management's concern for the employees.

$$\begin{array}{r}
 28-30. \quad A \quad A \quad A \\
 + \quad B \quad B \quad B \\
 + \quad C \quad C \quad C \\
 \hline
 B \quad A \quad A \quad C
 \end{array}$$

As the right hand digit of the sum of $A + B + C = C$, it means that $A + B = 10$ so A or B, none can be 0. Also the sum of $A + B + C$ can not exceed 19, So 1 is carried to the second column.

Now, $1 + A + B + C$ gives A as the right digit of the sum. So, $A = C + 1$. Further, again 1 is carried over to the third column as A can not be 0 and the sum of $1 + A + B + C$ can be at most 19.

On adding $A + B + C + 1$ we get BA, thus here $B = 1$. using $A + B = 10$, $A = 10 - 1 = 9$

Also, $A = C + 1$

$\Rightarrow C = A - 1 = 9 - 1 = 8$.

So, $A = 9$, $B = 1$ and $C = 8$ satisfy all the conditions.

CHECK:

$$\begin{array}{r}
 9 \quad 9 \quad 9 \\
 + \quad 1 \quad 1 \quad 1 \\
 + \quad 8 \quad 8 \quad 8 \\
 \hline
 1 \quad 9 \quad 9 \quad 8
 \end{array}$$

28. (a) $A = 9$
29. (b) $A + B + C = 9 + 1 + 8 = 18$
30. (c) $A = B + C$ or $9 = 1 + 8 = 9$ true.
 $A = 9$ is the greatest digit.
 $C = 0$ is false.
 So (i) & (ii) are true.
31. (c) 'a' and 'b' are not right as it will be unethical towards the rich class as the company is selling the same product under different labels.
 'd' is not right because nobody knows when this tomorrow come. The company might perish before that.
 'e' is wrong because why should company leave its monopoly. Further there is no guarantee of success in the middle segment. So 'c' is correct.
32. (b) The objective behind starting the company is very important and shall be maintained at any cost. So 'a' is not correct. c, d and e are foolish option. So 'b' is most appropriate.
33. (a) Long-term gain is more important for the company. It will lead to a better image and better sales in future. The company can also recover its losses by charging a slight premium for its new upcoming products.
34. (d) It is generally seen that good talented candidates are weak in certain skills, say, communication as is the case here. But these skills can always be taught. We shall not miss out on a genuine candidate. I personally put honesty, loyalty and hard work as the top qualities.
35. (a)
 - Among the 16 participants 8 will go out in round I.
 - Further we see that 4 participants got only 1000 cumulative SMS's each and 4 other got only 2000 cumulative each.
 - There are no ties in any round between any players, so in round I the 4 players will receive 1000, 2000, 3000 and 4000 SMS's only as total SMS received in a round = 10000.
 - The players with 1000 SMS's each will feature in the 4 different episodes and will be eliminated.
 - Also the players with 2000 SMS's each will feature in 4 different episodes and will be eliminated. So, N2, N3, N4, E2, E4, S3, S4 and W4 will be eliminated.
36. (d)
 - Among the 8 players who survive round I, they would have got 3000/ 4000 SMS's
 - Any player to win in round II (where 2 players further play) or has to receive at least 6000 SMS.
 - Hence E1(4000), E3(7000), S2(7,000) and W3(5000) will be eliminated in round II.
 - Hence N1, S1, W1 and W2 will definitely play round III.
 - S1 and W1 will be eliminated in round III as they can not score 6000 SMS in round III.
37. (a) In round I a maximum of 4000 SMS can be received. In further 3 rounds 9000 SMS's can be received in each of the round.
 Thus in all $4000 + 9000 \times 3 = 31000$ SMS's can be received by a participant.
38. (c) 3 is true as W1 lost in the third round.
 4 is true as the maximum SMS a person can receive in round I = 4000. Although W2 and N1 (reach the finals) it is very difficult to decide the winner. There are various permutation and combinations in which the players can be clubbed for round I where 1 player from each zone is selected. So it will be the earlier rounds which will decide how many SMS's (cumulative) remain with N1 and W2 after the 3rd round.

39. (e) $a \# b = 1 - \frac{b}{a}$

I. $(2\#1)\#(4\#3)$

$$= \left(1 - \frac{1}{2}\right) \# \left(1 - \frac{3}{4}\right)$$

$$= \frac{1}{2} \# \frac{1}{4} = 1 - \frac{\frac{1}{4}}{\frac{1}{2}} = 1 - \frac{1}{2} = \frac{1}{2}$$

II. $(3\#1)\#(4\#2)$

$$= \left(1 - \frac{1}{3}\right) \# \left(1 - \frac{2}{4}\right) = \left(\frac{2}{3}\right) \# \frac{1}{2}$$

$$= 1 - \frac{1}{2} \times \frac{3}{2} = \frac{1}{4}$$

III. $(2\#3)\#(1\#3)$

$$= \left(1 - \frac{3}{2}\right) \# \left(1 - \frac{3}{1}\right) = -\frac{1}{2} \# -2$$

$$= 1 - \frac{-2}{-1/2} = 1 - 4 = -3$$

So, none of the conclusions I, II and III can be derive(d)

40. (b) Adding all the four equations, we get
 $(A + B + C) + (B + C + D) + (C + D + A) + (D + A + B)$
 $= 118 + 156 + 166 + 178$
 $\Rightarrow 3(A + B + C + D) = 618$
 $\Rightarrow A + B + C + D = 206$... (5)

Using the given statements with (5),

$$D = 206 - 118 = 88$$

$$A = 206 - 156 = 50$$

$$B = 206 - 166 = 40$$

$$C = 206 - 178 = 28$$

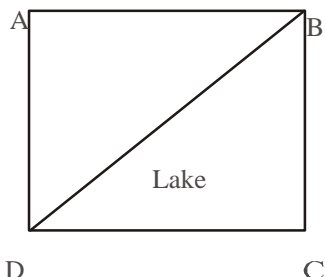
So only conclusion II can be derived.

41. (b) If a function is defined from set X to Y, i.e. $f: X \rightarrow Y$, then the function is the subset of the cartesian product $X \times Y$, such that any element X, there is a unique element in Y.

So, for $X = \{a, b, c\}$ and $Y = \{l, m\}$

f_1 is not a function as for $a \in X$, there are two values l and m from Y.

42. (a) Area of square lake = 50 sq. miles.



\therefore Length of the square = $\sqrt{50}$ km

Using pythagorous theorem,

$$BD^2 = CD^2 + BC^2$$

$$\text{or } BD = \sqrt{(\sqrt{50})^2 + (\sqrt{50})^2} = \sqrt{100} = 10$$

43. (b) $f(x) = (a - 2)x + 3a - 4$

For $f(x)$ to be even

$$f(-x) = f(x)$$

NOTE: For $a = 2$, the function becomes independent of x , i.e. constant.

So, $f(-x)$ would be equal to $f(x)$.

44. (a) He can answer 5 questions in following ways:

Ist 5 Last 3 Ways

2 3 ${}^5C_2 \times {}^3C_3 = \frac{5 \times 4}{2} \times 1 = 10$

3 2 ${}^5C_3 \times {}^3C_2 = \frac{5 \times 4}{2} \times 3 = 30$

4 1 ${}^5C_4 \times {}^3C_1 = 5 \times 3 = 15$

Hence total ways = $10 + 30 + 15 = 55$.

45. (c) For a stack of 5 cubes to be hazardous atleast 3 cubes of uranium have to be together. So there are 3 cases:

Case I: 3 uranium and 2 lead cubes are present.

They can be arranged in 3 ways (with the uranium cubes at positions (1, 2, 3 or 2, 3, 4 or 3, 4, 5) when uranium is together.

Case II: 4 uranium & 1 lead cube:

If the 4 uranium cubes are together then they can be arranged in 2 ways (UUUUL and LUUUU). If 3 uranium cubes are together then they can be arranged in 2 ways (UULU, and ULUUU).

Case III: 5 uranium cubes which can be arranged in 1 way. So in all $3 + 4 + 1 = 8$ ways.

46. (c) Let the roots of the quadratic equation be A & B.

$$\Rightarrow A + B = 12 \quad \dots\dots(i)$$

$$\text{and } AB = 32 \quad \dots\dots(ii)$$

$$\text{using, } (A - B)^2 = (A + B)^2 - 4AB$$

$$= 12^2 - 4 \times 32$$

$$= 144 - 128 = 16 \quad [\text{putting values of (i) \& (ii)}]$$

$$\Rightarrow A - B = 4 \quad \dots\dots(iii)$$

From (i) and (iii), $2A = 16$ or $A = 8$

$$\Rightarrow B = 12 - A = 12 - 8 = 4$$

As the cubic equation has two similar roots so let these roots be A, B and C.

Here $C = A + B$ (given condition)

$$\Rightarrow C = 8 + 4 = 12$$

Hence the cubic equation is:

$$(x - 8)(x - 4)(x - 12) = 0$$

$$\Rightarrow (x^2 - 12x + 32)(x - 12) = 0$$

$$\Rightarrow x^3 - 12x^2 - 12x^2 + 144x + 32x - 384 = 0$$

$$\Rightarrow x^3 - 24x^2 + 176x - 384 = 0$$

$$\Rightarrow x^3 - 24x^2 + 176x - 384 = 0$$

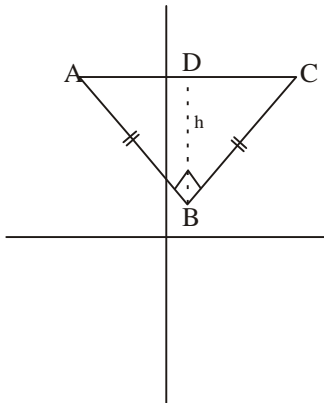
$$\Rightarrow x^3 - 24x^2 + 176x - 384 = 0$$

Thus the constant term = -384 .

47. (d) Area of $\Delta ABC = \frac{1}{2} \times AB \times BC = 144$

or $\frac{1}{2} \times AB^2 = 144$

$\Rightarrow AB = 12\sqrt{2} = BC$



Further $AB^2 + BC^2 = AC^2$

$\Rightarrow AC = \sqrt{(12\sqrt{2})^2 + (12\sqrt{2})^2} = 24$

Also if we consider ΔABC with base AC and height $BD = h$, then Area of ΔABC ,

$\frac{1}{2} \times AC \times h = 144$

$\Rightarrow h = \frac{144 \times 2}{24} = 12$

From the obtained information the y-co-ordinate of A and C will be 4 definitely and of B will be either $4 + 12 = 16$

or $4 - 12 = -8$.

Hence $(-16, -12)$ can not be a vertex of ΔABC .

48. (d) Consider $2^{2x+2} - 6^x - 2(3)^{2x+2} = 0$

$\Rightarrow 2^{2x} \cdot 2^2 - 2^x \cdot 3^x - 2 \cdot 3^2 \cdot 3^{2x} = 0$

$\Rightarrow 4 \cdot 2^{2x} - 2^x \cdot 3^x - 18 \cdot 3^{2x} = 0$

$\Rightarrow 4 \cdot \left(\frac{2}{3}\right)^x - 1 - 18 \cdot \left(\frac{3}{2}\right)^x = 0$

[Dividing by $2^x \cdot 3^x$ on both sides]

Let $\left(\frac{2}{3}\right)^x = y \Rightarrow \left(\frac{3}{2}\right)^x = \frac{1}{y}$

$\Rightarrow 4y - 1 - \frac{18}{y} = 0$

$\Rightarrow 4y^2 - y - 18 = 0$

$\Rightarrow 4y^2 + 8y - 9y - 18 = 0$

$\Rightarrow 4y(y+2) - 9(y+2) = 0$

$\Rightarrow (4y-9)(y+2) = 0$

$\Rightarrow y = \frac{9}{4}$ or -2

But y can not be negative, as any power of a positive number will be positive only. So neglect $y = -2$.

$\Rightarrow y = \frac{9}{4} = \left(\frac{2}{3}\right)^x$

or $\left(\frac{2}{3}\right)^x \cdot \left(\frac{3}{2}\right)^2 = \left(\frac{2}{3}\right)^{-2}$

$\Rightarrow x = -2$.

49. (d) The first integers whose square has 7 at the tens place are 24 or 26 with their squares as 576 or 676 respectively. So the square will have 6 in its units place.

50. (b) Let the emptying capacity of the tank be $x \text{ m}^3/\text{min}$. Thus, the filling capacity = $(x - 10) \text{ m}^3/\text{min}$.

$\therefore \frac{3600}{x-10} - \frac{3600}{x} = 12$

$\Rightarrow \frac{300}{x-10} - \frac{300}{x} = 1$

$\Rightarrow \frac{300[x-10-x]}{x(x-10)} = 1$

$\Rightarrow x^2 - 10x + 3000 = 0$

$\Rightarrow (x-60)(x+50) = 0$

Hence, emptying capacity = $60 \text{ m}^3/\text{min}$.

51. (b) $\log_x(\log_y(\log_z p)) = 0$

$\Rightarrow \log_y(\log_z p) = 1$

$\Rightarrow \log_z p = y$

$\Rightarrow p = z^y$ (using properties of logarithms)

Further, as x, y and z can take values among 3, 27 and 81, so there are $3! = 6$ arrangements possible and we have to calculate the value of p for all such arrangements.

For $x = 3, y = 27$ and $z = 81, p = 81^{27}$

Similarly, p will have the values $81^3, 27^3, 27^{81}, 3^{27}$ and 3^{81} .

Multiplying all the 6 values of p , we get

$3^n = 81^{27} \times 81^3 \times 27^3 \times 27^{81} \times 3^{27} \times 3^{81}$

$= 3^{4 \times 27} \times 3^{4 \times 3} \times 3^{3 \times 3} \times 3^3 \times 81 \times 3^{27+81}$

$= 3^{108} \times 3^{12} \times 3^9 \times 3^{243} \times 3^{108}$

$= 3^{108+12+9+243+108}$

$= 3^{480}$

$\Rightarrow n = 480$.

52. (d) Cost of scenery =
- R_1

$$R_2 = R_1 \left(1 - \frac{x}{100}\right)$$

A further discount of $x\%$ on R_2 reduces it by Rs. 415.

$$\Rightarrow \frac{x}{100} \cdot R_2 = 415$$

$$\Rightarrow \frac{x}{100} \cdot R_1 \left(1 - \frac{x}{100}\right) = 415 \quad \dots(i)$$

$$\text{Further } R_3 = R_1 \left(1 - \frac{x}{100}\right) \left[1 - \frac{x}{100}\right] = R_1 \left(1 - \frac{x}{100}\right)^2$$

$$\text{Again } R_4 = 3362.8 = R_1 \left(1 - \frac{x}{100}\right)^2 \left(1 - \frac{x}{100}\right)$$

$$\Rightarrow 3362.8 = R_1 \left(1 - \frac{x}{100}\right)^3 \quad \dots(ii)$$

Dividing (ii) by (i)

$$\frac{3362.8}{415} = \frac{R_1 \left(1 - \frac{x}{100}\right)^3}{\frac{xR_1}{100} \left(1 - \frac{x}{100}\right)} \Rightarrow 8.1 = \frac{\left(1 - \frac{x}{100}\right)^2}{\frac{x}{100}}$$

$$\Rightarrow 8.1 = \frac{y^2}{1-y} \quad \left[\text{using, } y = 1 - \frac{x}{100} \right]$$

$$\Rightarrow y^2 + 8.1y - 8.1 = 0$$

$$\Rightarrow y = \frac{-8.1 \pm \sqrt{8.1^2 - 4 \times 1 \times (-8.1)}}{2}$$

$$= \frac{-8.1 \pm 9.9}{2} = 0.9 \text{ or } -9$$

$$\Rightarrow 1 - \frac{x}{100} = 0.9 \text{ or } 1 - \frac{x}{100} = -9$$

$$\Rightarrow x = 0.1 \times 100 = 10 \text{ or } x = 10 \times 100 = 1000$$

$x = 1000$ is not possible.

using, $x = 10$ in (i), we get

$$\frac{10}{100} R_1 \left(1 - \frac{10}{100}\right) = 415$$

$$\Rightarrow R_1 = \frac{415 \times 10 \times 10}{9} = 4611.1 \approx 4613$$

Aliter : Let the discount be Rs. x , y and z .

$$R_1 - R_2 = x$$

$$R_2 - R_3 = y = \text{Rs. } 415.$$

$$R_3 - R_4 = z$$

$$x > y > z$$

y is approximately the average of $x + y + z$.

\therefore Hence, the initial price in Rs. (approximately)

$$= 3362.8 + 3(415) = 4607$$

approx, hence the best answer is (d).

53. (b) % change in gross profit for DCL polyester

$$= \frac{25.9 - 13.48}{13.48} \times 100 = \frac{12.42}{13.48} \times 100 \approx 92.14\%$$

54. (e)

		Pacific	MS	Jindal	TELCO	LAKME
Sales	Earlier	6.0	8.5	273.7	1328.6	34.9
	Now	7.9	39.5	297.7	1449.8	52.9
	Change	31.8	365.1	8.8	9.1	51.5
Gr.Profit	Earlier	2.2	8.7	28.1	47.4	3.5
	Now	3.9	11.4	34.3	48.2	4.7
	Change	75.3	31.0	21.9	1.5	34.0
NetProfit	Earlier	1.7	2.3	18.3	12.1	1.8
	Now	3.4	11.4	20.3	18.1	2.5
	Change	100.0	392.7	11.0	49.8	36.1

55. (e) (a) On checking the data for Orde it is clear that it showed a growth of more than 100% throughout.

(b) Growth for Shree Krishna Poly is less than 100% throughout.

(c) Net Profit for Volex increases from 0.13 to 0.39, i.e. a growth of 200%. So it will be $0.39 \times 3 = 1.17$ the next year and

$$1.17 \times 3 = 3.51 \text{ two years later.}$$

So (a), (b) and (c) all are correct.

56. (c) Marks in Financial Management for:

$$A = \frac{20}{100} \times 450 = 90$$

$$B = \frac{10}{100} \times 600 = 60$$

$$D = \frac{20}{100} \times 800 = 160; \text{ Highest}$$

$$E = \frac{20}{100} \times 650 = 130$$

$$F = \frac{20}{100} \times 725 = 145.$$

57. (a) A's marks in Mktg. =
- $\frac{10}{100} \times 450 = 45$

$$\text{Reqd. \%} = \frac{\text{A's marks in Mktg.}}{\text{B's total marks}} \times 100$$

$$= \frac{45}{600} \times 100 = 7.5\%$$

$$58. (b) D's \text{ score in FM} = \frac{20}{100} \times 800 = 160$$

$$\text{Reqd. \%} = \frac{D's \text{ score in FM}}{A's \& C's \text{ score in Mktg.}} \times 100$$

$$= \frac{160}{\frac{10}{100} \times 450 + \frac{20}{100} \times 575} \times 100$$

$$= \frac{160}{45 + 115} \times 100 = 100\%$$

59. (d) FM marks got interchanged with GM and Accounting got interchanged with Mktg.

We need to find the person with highest marks in Accounting and RM. As there was mistake in the Accounting marks so we will take Mktg. distribution from the bar graph for Accounting marks. Mark for RM will remain the same.

$$A = \frac{30}{100} \times 450 + \frac{10}{100} \times 500 = 180 + 50 = 230$$

$$B = \frac{30}{100} \times 600 + \frac{20}{100} \times 600 = 180 + 120 = 300$$

$$C = \frac{20}{100} \times 575 + \frac{20}{100} \times 75 = 115 + 15 = 130$$

$$D = \frac{20}{100} \times 800 + \frac{20}{100} \times 800 = 160 + 160 = 320$$

$$F = \frac{30}{100} \times 725 + \frac{20}{100} \times 25 = 217.5 + 5 = 222.5$$

$$60. (c) E (\text{Marketing}) = \frac{10}{100} \times 650 = 65$$

$$B (\text{RM}) = \frac{30}{100} \times 600 = 180$$

$$\therefore \text{Reqd. percentage} = \frac{B(\text{RM}) - E(\text{Mktg})}{B(\text{RM})} \times 100$$

$$= \frac{180 - 65}{180} \times 100 = \frac{115}{180} \times 100 = 63.88\%$$

$$61. (b) 1995: \text{Ratio} = \frac{58}{521} = 0.111$$

$$1997: \text{Ratio} = \frac{215}{1060} = 0.203$$

$$1999: \text{Ratio} = \frac{103}{760} = 0.1355$$

$$2001: \text{Ratio} = \frac{133}{1996} = 0.067$$

$$2002: \text{Ratio} = \frac{138}{1528} = 0.09$$

Hence, the ratio of deaths to the plague cases was maximum in 1997.

62. (d) From the above table the ratio of deaths to the plague cases was minimum in 2001.

63. (c) As seen from the table there is drop in the number of deaths in 1998 and 1999 only.

$$1998: \frac{215 - 153}{215} \times 100 = 28.84$$

$$1999: \frac{153 - 103}{153} \times 100 = 32.68$$

64. (e) $A_t = (t + 1) A_{t-1} - t A_{t-2}$

$$A_0 = 1 \text{ and } A_1 = 3$$

$$\Rightarrow A_2 = 3A_1 - 2A_0 = 9 - 2 = 7$$

$$A_3 = 4A_2 - 3A_1 = 28 - 9 = 19$$

$$A_4 = 5A_3 - 4A_2 = 95 - 28 = 67$$

$$A_5 = 6A_4 - 5A_3 = 402 - 95 = 307$$

$$A_6 = 7A_5 - 6A_4 = 2149 - 402 = 1747$$

We see that the numbers are increasing, hence none of the conclusions can be derived.

65. (e) None of the three conclusion can be definitely drawn from the given data.

66. (e) $P \equiv (0, 4); Q \equiv (a, 6)$

Coordinates of R, mid point of PQ,

$$= R \equiv \left(\frac{0+a}{2}, \frac{4+6}{2} \right) = \left(\frac{a}{2}, 5 \right)$$

$$\text{Slope of PQ} = \frac{6-4}{a-0} = \frac{2}{a}$$

$$\therefore \text{Slope of a perpendicular to PQ} = -\frac{a}{2}$$

Equation of the perpendicular bisector passing through

R, with slope $-\frac{a}{2}$

$$y - 5 = -\frac{a}{2} \left(x - \frac{a}{2} \right) = -\frac{ax}{2} + \frac{a^2}{4}$$

$$\Rightarrow y + \frac{ax}{2} = \frac{5+a^2}{4}$$

$$\Rightarrow \frac{y}{\left(\frac{5+a^2}{4} \right)} + \frac{x}{\left(\frac{2}{a} \left(\frac{5+a^2}{4} \right) \right)} = 1 \text{ intercept form of a line.}$$

As this line passes from $(b, 0)$, putting $y = 0$,

$$\Rightarrow x = \frac{2}{a} \left(\frac{5+a^2}{4} \right) = b$$

$$= \frac{10}{a} + \frac{a}{2}$$

Which can never be an integer for any value of a .

67. (b) Total Sales after adding sales for all the 3 months for both TV's and Ipods = 132300

$$\Rightarrow \text{Surcharge} = \frac{14}{100} \times 132300 = 18522.$$

NOTE: There is a mistake in the question as it says that sales value is in Rupees thousand.

68. (c) Sales of TV's in January from Bisupur and Kadma = 900 + 6300 = 7200
Sales of Ipods in January from Bisupur and Kadma = 15750 + 6300 = 22050

$$\begin{aligned} \therefore \text{Profit} &= \frac{10}{100} \times 22050 + \frac{20}{100} \times 7200 \\ &= 2205 + 1440 = 3645. \end{aligned}$$

- 69 (a) Units sold in January = Units ordered + opening inventory - ending inventory
= 7560 + 5760 - 6120 = 7200
Total sale value of Ipods in Jan - March for all 3 areas = 100800

$$\therefore \text{Unit sales price} = \frac{100800}{7200} = 14.$$

70. (b) Average Price of TV = $\frac{\text{Sale value in Feb}}{\text{Units sold in Feb}}$
= $\frac{1050 + 2100 + 7350}{1050}$
= $\frac{10500}{1050} = 10$

$$\begin{aligned} \text{Average price of TV} &= \frac{\text{Sale value in Feb}}{\text{Units sold in Feb}} \\ &= \frac{16800 + 10080 + 6720}{2400} \\ &= \frac{33600}{2400} = 14 \end{aligned}$$

Units of TV sold in Jan

$$= \frac{900 + 1800 + 6300}{10} = \frac{9000}{10} = 900$$

Units of Ipods sold in Jan

$$= \frac{15750 + 9450 + 6300}{14} = \frac{31500}{14} = 2250$$

TV ordered = 900 + 840 - 720 = 1020

Ipods ordered = 2250 + 1920 - 1800 = 2370.

71. (b) TV ordered from Jan to March = 3150 + 2880 - 2520 = 3510

Average price of a TV = 10

\therefore Sale value = 3510 \times 10 = 35100

The value of the order placed will be the cost of the

$$\text{company} = 35100 \left(1 - \frac{25}{100} \right) = 26325.$$

72. (e) $GO + BS = 37$... (I)

$$0 = 22 = GO + BO \quad \dots \text{(II)}$$

$$GS + GO = 20 \quad \dots \text{(III)}$$

$$S + BO = 37 \quad \dots \text{(IV)}$$

$$H = 25 \quad \dots \text{(V)}$$

No. of students in 2nd year = S + O + H

Add (I), (III) and 2(IV)

$$\Rightarrow GO + BS + GS + GO + 2(S + BO) = 37 + 20 + 2(37)$$

$$\Rightarrow 2GO + 2BO + BS + GS + 2S = 134$$

$$2O + S + 2S = 131 \quad (\because O = GO + BO \text{ \& } S = GS + BS)$$

$$\Rightarrow 2(22) + 3S = 131$$

$$\Rightarrow S = \frac{131 - 44}{3} = 29$$

$$\therefore S + O + H = 29 + 22 + 25 = 76.$$

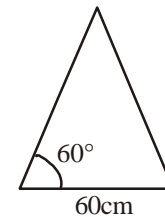
73. (b) $GS + GO = 20$

$$H = 25, GH = \frac{20}{100} \times 25 = 5$$

$$\Rightarrow \text{Total girls, } G = 20 + 5 = 25$$

$$\text{Boys in 2nd year} = 76 - 25 = 51$$

74. (b)



I. We do not get sufficient information from the sum of length of the other two sides as two angles are unknown.

II. If the second base angle is 45°, we can know the third angle and with one side known we can find all other sides using sine law.

75. (e) Nothing can be said about C from the given information and statements I and II.

76. (a) It is clear from the given graph that the profit (sales - cost) is maximum in month 1.

$$\text{Here profit} = 2200 - 1800 = 400.$$

77. (c) From the graph the slope of the sales curve is steepest from month 3 to month 4.

78. (b) Average Sales

$$= \frac{2200 + 1750 + 1600 + 2300 + 4550 + 1850 + 2400 + 1460 + 1750 + 1650}{10}$$

$$= \frac{18200}{10} = 1820$$

Average Cost

$$= \frac{1800 + 1600 + 1250 + 950 + 700 + 1800 + 1850 + 1380 + 1550 + 1700}{10}$$

$$= \frac{16580}{10} = 1658$$

96. (d) Option (d), if true, would be suitable for the concept of Karma as defined in Bhagavata purana - to be made equally valid across different space - time combination.
97. (e) The orientalist perspective, according to the author 'viewed India as if it was a single and unitary entity devoid of diversity' the clue regarding this lies in the following lines of the passage - in part, this trend represents the conscious reversal of the stance taken by an earlier generation of scholars who reified India into a monolithic entity a critical element in the much maligned "orientalist" enterprise.
98. (b) The above passage is most likely an excerpt from - psycho pathology blog the reason being psycho pathology is a study of the origin and development of mental or behavioural disorders and the passage is indicative of such psychological transmissions.
99. (c) It can be definitely inferred from the passage above that the whole work from which this excerpt is taken, primarily concerns itself with the inconsistencies in Jung's writings the word inconsistency here means something which is not regular or predictable; erratic just like Jung's writings.
100. (e) Option (e) is the correct answer the reason being none of the given answer choices are - a comparison similar to the distinction between the 2 images of the transcendent function.
101. (c) As per the passage the key Jungian structure other than the self that emerges from the expensive transcendent function may not be expressed as an - idealised model. The clue regarding this lies in the following lines of the passage - "the root metaphor exchanges between conscious and the unconscious is the wellspring from whence flows other key Jungian structures such as the archetypes and the self and is the core of the individuation process.
102. (c) The conclusion that can be drawn from the passage is "precise measurement is both a necessary and sufficient condition to ensure validity of conclusions resulting from an experiment". The clue regarding this lies in the following lines of the passage - "because of the wide margins of error they had attributed to their measurements, all of these alternative laws pass the test."
103. (b) As per Mayo's perspective the phrase scientific explanation means one which survives examinations better than other explanations.
104. (e) The author's use of Snell's law of refraction to illustrate Mayo's perspective can best said to be illustrative the clue regarding this lies in the following line of the passage - her idea can be explained by some simple example.
105. (b) A person seeking to refute the argument might argue that managing big organization is more challenging than small. The reason being the CEO of any organization whether it is big or small has similar kind of duties and responsibilities but the CEO of big organization has more complex nature of work.
106. (a) If the given statement that CEO of small organization comes from good educational background is true it will strengthen the speaker's argument, the reason being the speaker wants that CEOs of big and small organizations should be paid similarly and if the CEO of small organization comes from good educational background they should receive a similar amount which a CEO of big organization receives.
107. (b) If the give statement that Hindi is the most difficult language in the world to speak is true, it would weaken the speaker's argument the reason being after reading the argument we find that Hindi is a simple language and it can be learnt easily by people government need not make any special efforts in order to help the people to acquire this language.
108. (d) The point made by the speaker strengthens his argument the reason being the UN members contribute funds according to their population for the proper functioning of UN and India would be the most populist nation in coming years and would contribute maximum amount therefore, the official language of UN should be changed to Hindi.
109. (a) Emotive argument is used in the passage which is referring to the safety of the children to get people interested. Every line of the passage is indicative of the dangers to which the children are exposed and measures which need to be taken for the safety of the children.
110. (c) It extends the speaker's argument using statistical data because it is based on a live study conducted on a set of people.
111. (b) Option (b) which states different ways of looking at History can produce altogether different knowledge is true because each and every line of the above paragraph shows how study of History can provide altogether different knowledge. These days history is not mere date wise representation of facts rather it is turning to be scientific in its approach.

112. (a) The author agrees with option (a), the reason being study of history has turned to be scientific in approach and it is no more a chronological presentation of historic events.
113. (e) The following statement best summarizes the passage - "the passage highlights importance of moods and emotions in marketing." The reason being throughout the passage we find how moods and emotions of customers effect the markets.
114. (c) Mood congruence means when moods are synchronous with thoughts and actions. The clue regarding this lies in the following line of the passage there is mood congruence when thoughts and actions fall in line with mood.
115. (b) Out of the 2 statements first one is an implication and second is proposition the reason being the first statement follows from the text and the second statement forms a part of the given text.
116. (a) In general emotions are object specific. In general moods are not object specific. As per Thayer, moods are a mix of biological and psychological influences the above three statements are correct the clue regarding this lies in the following lines of the passage - "in any case moods are distinguished from emotions proper by not being tied to any specific object. Thayer views moods as a mixture of biological and psychological influences and as such a sort of clinical thermometer, reflecting all the internal and external events that influence us.
117. (a) The statement "moods provide energy for human actions" is always right the reason being whatever a person does is the result of his or her mood.
118. (b) The term conspicuous consumption in the passage means consumption which is driven by moods and emotions.
119. (a) The above paragraph appears to be an attempt at defining Blue ocean strategy the reason being very first line of the paragraph is indicative of this as the word 'concept' is used and later in the paragraph the author is trying to explain this concept that is defining Blue ocean strategy.
120. (c) Option (c) which states "increase in production of existing products enhances core competence" is correct the reason being the company is planning to give priority to core competence and the only activity which can lead to it is increase in the production of orthodox varieties of tea.