XAT 2008

SECTION A

ANALYTICAL REASONING & DECISION MAKING

Directions (Qs. 1 to 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 to 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 182 hours in the night shift. The time required per unit production is as follows.

Product	Day Shift	Night Shift
Alpha 1	2 hours	2.5 hours
Beta 1	3 hours	4.0 hours
Gamma 1	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.

1. Which of the following is possible?
   [1] 75 units of Alpha 1, 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 night shift.
   [2] 75 units of Alpha I, 4 units of Beta I and 40 units of Gamma I and 5 units of Alpha I in night shift.
   [3] 74 units of Alpha I, 4 units of Beta I, in the day shift, 25 units of Beta I, and 10 units of Gamma I and 30 units of Alpha I in night shift.
   [4] 74 units of Alpha I, 5 units of Beta I in day shift, 40 units of Beta I, 10 units of Gamma I and 30 units of Alpha I in night shift.
   [5] None of these

2. What percentage of the available raw material is utilized if 100 units of Alpha I, 40 units of Beta I, and 10 units of Gamma I are produced?
   [1] 50% **[2]** 58% **[3]** 68%
   [4] 78% **[5]** 80%

3. If Rahul Sharma spends initially 150 machine hours in day shift to manufacture Gamma I, 10 hours to manufacture Alpha I, and the night shift manufactures 53 units of Gamma I and spends the rest of the night shift to manufacture Alpha I. What will be his profit / loss?
   [1] loss of Rs. 65 **[2]** profit Rs. 65
   [3] No profit to loss **[4]** profit of Rs. 75
   [5] This manufacturing pattern is not possible

4. 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
   [1] 10 units of Beta I can be manufactured.
   [2] 0 units of Beta I can be manufactured.
   [3] 5 units of Beta I can be manufactured.
   [4] 8 units of Beta I can be manufactured.
   [5] Any of the above.

4. 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 Beta1, 40 units of Gamma I and 20 units of Alpha I are manufactured then which of the following is true
   I. 5 hours of machine time is unutilized
   II. Total cost of production is Rs.54
   III. More than 20% of the available raw material is unutilized.
   [1] I only **[2]** II only **[3]** I and III
   [4] I and II **[5]** I, II and III

Directions (Qs. 6 to 9):

@, #, %, $ are certain mathematical symbols.
1. $(2 @ 3 \% 6)^2 1 = 143$
2. $\sqrt{(25 \% 7 \% 4)} = 2 @ 3$
3. x/z = 4 # 5 when x/y = y/z = 2 Ö 5
4. 9 # 3 @ 2 = 6

The following questions are based on this data.

6. 4 @ (16 $ 7) # [(8 $ 1) % 2] is equal to
   [1] 4 **[2]** 9 **[3]** 3
   [4] 8 **[5]** 5

7. If $a^2 @ 5 = (a + 8)^2 \# 5$, then a can be
   [1] 0 **[2]** 1 **[3]** 2
   [4] 5 **[5]** 6

8. Which of the following operations would give a prime number?
   [1] (6 # 2) % 1 **[2]** 8 @ 9 # 12 **[3]** 7 % 5 % 1
   [4] 7 $ 4 $ 2 **[5]** None of these

9. 1 @ 0 % of $ 0 % 1 is equal to
   [1] 0 **[2]** 1 **[3]** undefined
   [4] 2 **[5]** 3

Directions (Qs. 10 to 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 in every round the amount which he had at the beginning of the 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.
    [1] 100 **[2]** 150 **[3]** 55
    [4] 75 **[5]** 95

11. Akbar started with Rs.
    [1] 100 **[2]** 150 **[3]** 50
    [4] 75 **[5]** 85

12. Which of the following is correct?
    [1] Finally Amar and Akbar both were in profit.
    [2] Finally Amar and Akbar both were in loss.
    [3] Amar and Akbar neither gained nor lost in their games.
    [4] Only one of them was in profit.
    [5] None of these

13. After paying for the 3rd round what the amount with Amar?
[1] Rs. 25 **[2]** Rs. 50 **[3]** Rs. 75
[4] Rs. 100 **[5]** Rs. 110

14. At the beginning of the 3rd round the amount with Akbar was :
[1] Rs. 25 **[2]** Rs. 50 **[3]** Rs. 75
[4] Rs. 150 **[5]** Rs. 165

Directions (Qs. 15 to 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, Dineska and Aasha.

The reasons for fighting are: Boy friend came late, Boy friend did not get move ticket, Boy 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.
I. Neither Dinesh nor the person who did not turn up for the date gave his girl friend a Bar One.
II. Neither Dineska nor the girl whose boy friend came late received a Kit Kat.
III. Amit gave his girl friend a Perk saying he was sorry for being late.
IV. Beena was made at her boy friend because he did not get the movie tickets
V. Chhaya's anger melted away after she received a Kit Kat from her boy friend who is not Bikash.
VI. Chhaya told her boy friend that she saw Dinesh going with some other girl.

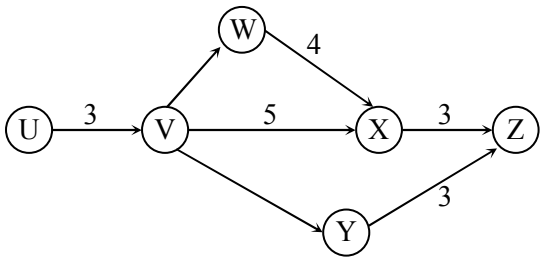
15. Who is Amit's girl friend?
[1] Aasha **[2]** Beena **[3]** Chhaya
[4] Kineka **[5]** None of these

16. What did Beena receive form her boy friend?
[1] Kit Kat **[2]** Bar One **[3]** Five Star
[4] Perk **[5]** None of these

17. Who is Chhaya's boyfriend?
[1] Amit **[2]** Chaitanya **[3]** Dinesh
[4] Bikash **[5]** One of these

18. Why was Aasha mad at her boy friend?
[1] He did not get the movie tickets
[2] He came late
[3] He did not turn up for the date at all
[4] He went out with some other girl
[5] None of these

Directions (Qs. 19 to 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 organization 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?
[1] Rs. 74400 **[2]** Rs. 372000 **[3]** Rs. 15000
[4] Rs. 18500 **[5]** 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?
[1] 5% **[2]** 10% **[3]** 15%
[4] 17.5% **[5]** 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?
[1] + 122% **[2]** – 122% **[3]** + 55%
[4] – 55% **[5]** None of these

Directions (Qs. 22 to 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 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 in turn 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 ?
[1] 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.
[2] His being in the night shift had worked to his disadvantage as he could not interact with the management regarding his problem.
[3] He was not allowed to meet chairman of the board of directors of the company.
[4] Employment in the night shift–forced him to say away from his family during the day time and therefore he could not interact with his family members much.
[5] 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 initiatives ?
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.

[1] 1 + 2 + 3 **[2]** 1 + 4 + 5 **[3]** 1 + 2 + 5
[4] 1 + 3 + 4 **[5]** 3 + 4 + 5

24. Which of the following managerial attributes does Mr. Thakur seem to lack the most?
[1] Emotional instability under pressure
[2] Emotional stability under pressure
[3] Proactive problem solving
[4] Ethical behaviour
[5] Independent decision making

25. The most important causal factor for this entire episode could be:
[1] Trying to follow a divide–and–rule policy in his dealings with the supervisors.
[2] Paternalistic approach towards mature individuals in the organization.
[3] Legalistic approach to employee problem.
[4] Inconsistent dealings of Mr. Thakur with supervisors.
[5] Inadequate standards for measurement of supervisors on–job performance

26. The situation with Mr. Lal could have been avoided if Mr. Thakur had
1. Delegated the task of negotiation of wage contracts for night shift employees to Personnel department.
2. Created process for supervisors working the night shift so that they could have an opportunity to interact with him.
3. Created an open door policy that would have allowed employees to see him without any appointment.

4. Postponed the decision of wage revision for supervisors in the night shift for two months, since supervisors were rotated on different shifts after every two months.
The option that best arranges the above managerial interventions in decreasing order of organizational impact is:

[1] 4, 2, 3, 1 **[2]** 4, 3, 2, 1 **[3]** 2, 3, 1, 4
[4] 4, 3, 1, 2 **[5]** 4, 1, 2, 3

27. The most likely premise behind Mr. Thakur's initiative regarding individualized meetings with the supervisors seems to be
[1] Involvement of company's president in wage problems of employees will lead to a better goodwill towards the management among the workers.
[2] Employee related policies should allow scope for bargaining by employees which leads to unsatisfied employees.
[3] Individual agreements with supervisors would allow the management to prevent any possible collective action by the supervisors.
[4] Management will be able to force supervisors to accept lesser wages individually in this way.
[5] He would be able to know who the trouble makers in the plant are by interacting with the supervisors.

Directions (Qs. 28 to 30): Go through the situation and the accompanying table, and pick up the best alternative to answer.
Solve the addition (A′ B′ C).

	A	A	A
+	B	B	B
+	C	C	C
B	A	A	C

28. The value of A is:
[1] 9 **[2]** 7 **[3]** 6
[4] 1 **[5]** None of these

29. The value of A + B + C is:
[1] 15 **[2]** 18 **[3]** 16
[4] 12 **[5]** 13

30. Which of the following is /are true?
i) A = B + C
ii) A is the greatest digit integer
iii) C = 0
[1] i & iii **[2]** ii & iii **[3]** i & ii
[4] iii only **[5]** All of these

Directions (Qs. 31 to 34): Read the following situations and choose the best possible alternative.

31. The city of Nagar has population of 10 million, 2 million amongst whom were rich 3 million poor and 5 million belonged to the middle class. Saundarya Cosmetics manufactured and sold beauty product to rich class at a premium price. Its products were very popular with customers. Many people from middle and poor segments of population aspired to buy these products but could not afford because of high prices. Of late, sales growth was stagnating in the rich segment. Which of the following is the best option for Saundarya Cosmetics to maximize long–term profits?
[1] Sell the same products at lower prices to middle and poor classes.
[2] Sell its products under different brand names to middle and poor classes.

[3] Sell similar products of different quality standards with different brand names, to middle classes and poor classes.
[4] Continue to target rich only and hope that today's middle class would be tomorrow's rich class.
[5] Target middle class as it is the largest segment and forget about the rich.

32. Seema was a finance manager in an MNC and felt that gender discrimination at the workplace hampered her career growth. Frustrated, she quit the job and started a company. While starting her company, Seema decided that she would have equal proportion of males and females. Over the last six years, Seema emerged as a very successful entrepreneur and expanded her business to eight locations in the country. However, Seema recently started facing an ethical dilemma because she realized that female employees were not willing to travel across cities and work late hours, as the work required them to do so. Male employees did not hesitate undertaking such work. Seema started to feel the pressure of reducing the proportion of female employees. On the other hand she is aware that equal representation was one of the strongest reasons for her to have founded the company. What should she do as a conscientious female entrepreneur?
[1] Reduce the number of female employees, as it is a business requirement. She should not let anything affect her business.
[2] See if unwilling female employees could be given assignments which do not require travel and involve less overtime.
[3] Let the status quo continue
[4] Henceforth hire only male employees.
[5] She should close the business.

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?
[1] Apologize and fix up the bug for all customers even if it has to incur losses.
[2] Do not tell customers about bugs and remove only when customers face problems, even if it means loses for the customers.
[3] Keep silent and do nothing.
[4] Keep silent but introduce an improved product that is bug–free at the earliest.
[5] 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?
[1] I would hire him at all costs.
[2] I would hire him for production or finance job but not for marketing job, which requires good communication skills.
[3] I would hire him for the job he is good at, and provide training in other areas.
[4] I would not hire him as he might be a burden on organization because of his poor communication skills.

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

The Indian Idol championship 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 in 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?
[1] Participant # 1 from East **[2]** Participant # 4 from West **[3]** Participant # 4 from North
[4] Participant # 2 from East **[5]** None of these

36. What are the rounds that participant #1 from South Zone has definitely NOT participated in?
[1] 1 **[2]** 2 **[3]** 3
[4] 4 **[5]** 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?
[1] 31,000 **[2]** 3,000 **[3]** 36,000
[4] 46,000 **[5]** None of these

38. Which of the following statement(s) is/are true?
1. The winner of the Indian Idol competition is Participant #2 from West Zone
2. The winner of the Indian Idol competition is Participant # 1 from
3. Participant #1 from the West Zone made it to the third round.
4. No participant got more than 6,000 votes in the first round.
[1] 1, 2 **[2]** 2, 3 **[3]** 3, 4
[4] 1, 4 **[5]** 2, 4

SECTION B

DATA INTERPRETATION AND QUANTITATIVE ABILITY

Note: All units of measurement are in centimeters unless otherwise specified

Directions (Qs. 39 & 40): A statement is followed by three conclusions. Select the answer from the following options.
[1] Using the given statement, only conclusion I can be derived.
[2] Using the given statement, only conclusion II can be derived.
[3] Using the given statement only conclusion III can be derived.
[4] Using the given statement, all conclusions I, II and III can be derived.
[5] Using the given statement, none of the three conclusions 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 = f {a, b, c, d} and Y = f{ ℓ , m} Consider the following four subsets of X × Y.
FI = {(a, ℓ), (a, m), (b, ℓ), (c,m)}
F2 = {(a, ℓ), (b, ℓ), (c, ℓ)}
F3 = {(a, ℓ), (b, m), (c, m)}
F4 = {(a, ℓ), (b, m)}
Which one, amongst the choices given below, is a representation of functions from X to Y?
[1] F1, F2 and F3 **[2]** F2 and F3 **[3]** F2, F3 and F4
[4] F3 and F4 **[5]** None of the above

42. Area of a square natural lake is 50 sq.kms. A diver wishing to cross the lake diagonally will have to swim a distance of:
[1] 10 miles **[2]** 12 miles **[3]** 15 miles
[4] None of these

43. A function f(x) is said to be an even function if f(–x) = –f(x) and odd 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?
[1] –2 **[2]** 2 **[3]** 0
[4] 4 **[5]** 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?
[1] 55 **[2]** 56 **[3]** 75
[4] 168 **[5]** 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?
[1] 3 **[2]** 7 **[3]** 8
[4] 10 **[5]** 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.
[1] – 176 **[2]** 176 **[3]** –384
[4] 384 **[5]** None of these

47. If ΔABC is an isosceles right angled triangle with area 144 sq. cm and the unequal side of ΔABC lies on the line y = 4, which of the following cannot be a vertex of ΔABC ?
[1] (1, 16) **[2]** (16, 4) **[3]** (−16, −8)
[4] (−16, −12) **[5]** (8, 16)

48. Find the real roots of : $2^{2x+2} - 6^x - 2(3)^{2x+2} = 0$.
[1] −1/2 **[2]** −1 **[3]** +1
[4] −2 **[5]** Both 3rd & 4th option

49. If the square of an integer has the tens place digit as 7, then what will the square have in its units place?
[1] 3 **[2]** 4 **[3]** 1
[4] 6 **[5]** Can't 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 m^3/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?
[1] 50 m^3/min **[2]** 60 m^3/ min **[3]** 45 m^3/min
[4] 90 m^3/min **[5]** 48 m^3 / 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'?
[1] 400 **[2]** 480 **[3]** 520
[4] 360 **[5]** 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. 3,362.8. Find the original price R_1 of the scenery.
[1] Rs. 5,349 **[2]** Rs. 4,213 **[3]** Rs. 4,488
[4] Rs. 4,613 **[5]** Rs. 4,706

Directions (Qs. 53 to 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 Zine [Audited]	59.33	75.08	10.07	11.61	3.86	4.50

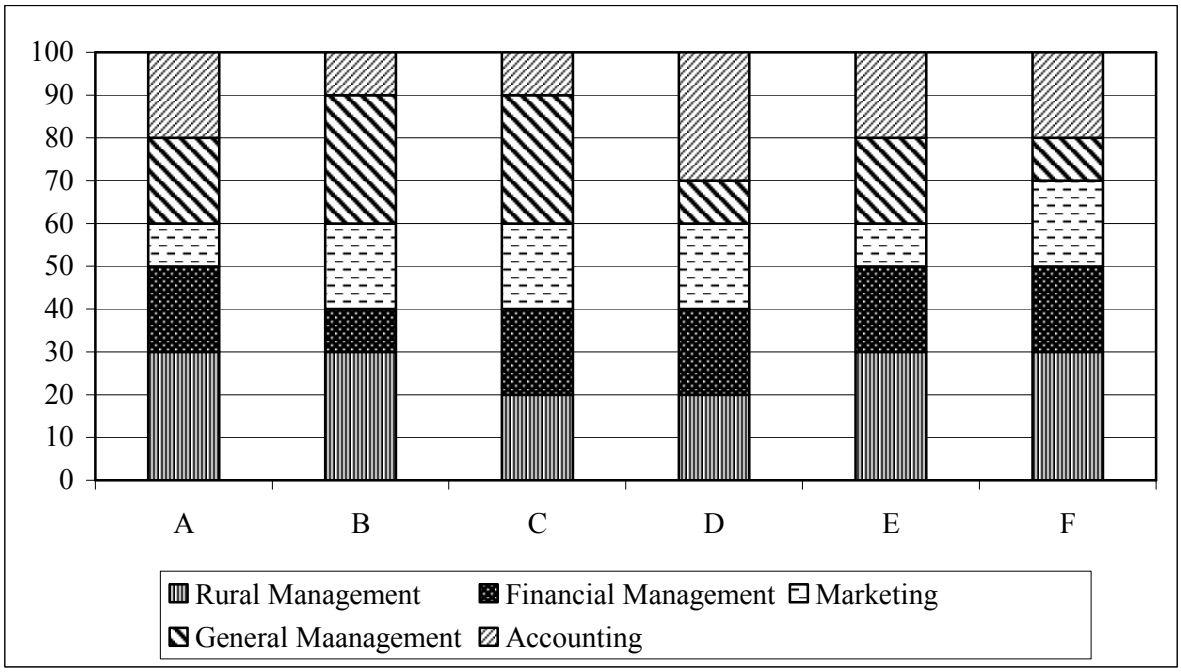
Cosmo Fertilizer	4.90	3.73	1.16	0.05	0.53	–0.57
DCL Polyster	197.66	184.43	25.90	13.48	17.05	4.58
Digiflex (India)	2.10	0.00	0.45	0.00	0.29	0.00
Drilleo Metal Carbides	4.63	4.28	0.10	–0.86	0.02	–0.94
Himatsingka Seide	14.56	13.64	6.28	6.02	4.95	4.78
Indian wood Prods	4.90	3.30	0.61	0.45	0.31	0.25
Infosys 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	2.23
Menon Bearings	0.92	0.00	0.008	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 Inds	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 HCL Polymers?
[1] 89.12 **[2]** 92.14 **[3]** 93.18
[4] 91.82 **[5]** 94.32

54. For which of the following companies the percentage increase in each of the three companies (sales, gross profit and net profit) is more than one–third?
[1] Pacific Granites **[2]** MS shoes **[3]** Jindal Strips
[4] TELCO **[5]** 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.
[1] a & c only **[2]** c only **[3]** a & b only
[4] b & c only **[5]** None of these

Directions (Qs. 56 to 60): Refer to bar graph & table given below and answer the questions that follow.
The graph given below shows the distribution of the total marks of 6 students across 5 different subjects as a percentage of the total marks scored by them.



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
F	725

56. If a cash prize of Rs. 10,000 is given to the student who scored the highest marks in Financial Management, then who is the student who bags this prize?
[1] A **[2]** B **[3]** D
[4] F **[5]** E

57. The marks obtained by student A in Marketing is what percentage of the total marks obtained by student B in all subject put together?
[1] 7.5% **[2]** 8% **[3]** 9%
[4] 10% **[5]** 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?
[1] 125% **[2]** 100% **[3]** 75%
[4] 150% **[5]** 120%

59. If there were some mistakes in calculating the percentage distribution as shown in 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?
[1] A **[2]** C **[3]** D
[4] F **[5]** B

60. The marks obtained by student E in Marketing is what percentage less than the marks obtained by student B in Rural Management?
[1] 36.11% **[2]** 46.11% **[3]** 63.8%
[4] 55% **[5]** 75%

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

(Figures in brackets show the number of details)

	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Botswana	0 (0)	0 (0)	0 (0)	0 (0)	103 (0)	70 (3)	0 (0)	0 (0)
Tansania	129 (22)	360 (57)	356 (34)	547 (33)	31 (4)	364 (32)	293 (60)	0 (0)
Zaire	0 (0)	0 (0)	474 (160)	309 (86)	0 (0)	0 (0)	207 (28)	214 (80)
Brazil	64 (2)	58 (4)	43 (0)	25 (0)	26 (0)	18 (0)	10 (0)	25 (0)
USA	17 (2)	10 (0)	12 (2)	16 (0)	4 (0)	2 (0)	11 (0)	13 (2)
Myanmar	35 (0)	6 (6)	5 (0)	8 (0)	34 (2)	6 (0)	100 (1)	528 (3)
Vietnam	137 (6)	104 (3)	107 (6)	196 (37)	374 (20)	405 (3)	94 (13)	437
World Total	521 (58)	1009 (115)	1060 (215)	1371 (153)	760 (103)	1254 (133)	1996 (133)	1528 (138)

61. In which year was the ratio of deaths to the plague cases the maximum?
[1] 1995 **[2]** 1997 **[3]** 1999
[4] 2001 **[5]** 2002

62. In which year was the ratio of deaths to the plague cases the minimum?
[1] 1995 **[2]** 1997 **[3]** 1999
[4] 2001 **[5]** 2002

63. In which year was there the maximum drop in the percentage of deaths as compared to the preceding year?
[1] 1998 **[2]** 2000 **[3]** 1999
[4] 1996 **[5]** None of these

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

[1] Using the given statement, only conclusion I can be derived.
[2] Using the given statement, only conclusion II can be derived
[3] Using the given statement, only conclusion III can be derived
[4] Using the given statement, conclusions I, II and III can be derived
[5] Using the given statement, none of the three conclusions I, II and III can be derived

64. A0, A1, A2…… is sequence of numbers with A0 = 1, A1 = 3 and At = (t + 1) A(t –1) – t A(t –2) for t = 2, 3, 4, …..
Conclusion I, A8 = 77
Conclusion II A10 = 121
Conclusion III A12 = 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 C2 integer value(s) of "a", b is an integer
[1] 1 **[2]** 0 **[3]** 3
[4] 4 **[5]** None of these

Directions (Qs. 67 to 71): On the basis of the data given below.

Area / Month	**January**	**February**	**March**
Sales 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 figures 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 the three months?
[1] 18548 **[2]** 18522 **[3]** 18548
[4] 18425 **[5]** 18485

68. 10% of sales price of Ipods and 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.
[1] 513 **[2]** 4410 **[3]** 3645
[4] 5230 **[5]** 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.
[1] 14.00 **[2]** 14.65 **[3]** 14.80
[4] 13.00 **[5]** 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.
[1] 1020, 2270 **[2]** 1020, 2370 **[3]** 2270, 2280
[4] 1030, 2370 **[5]** 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 prices, uniformly.]
[1] 2808 **[2]** 26325 **[3]** 22320
[4] 25200 **[5]** 28080

Directions (Qs. 72 & 73): In second year, students at a business school can opt for Systems, Operations, or HR electives only. The number of girls opting for Operations and the number of boys opting for Systems electives in 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 ————————— ?
[1] 73 **[2]** 74 **[3]** 75
[4] 77 **[5]** 76

73. If 20% of the girls opt for HR electives, then the total number of boys in the second year is ————————?
[1] 50 **[2]** 51 **[3]** 52
[4] 53 **[5]** 54

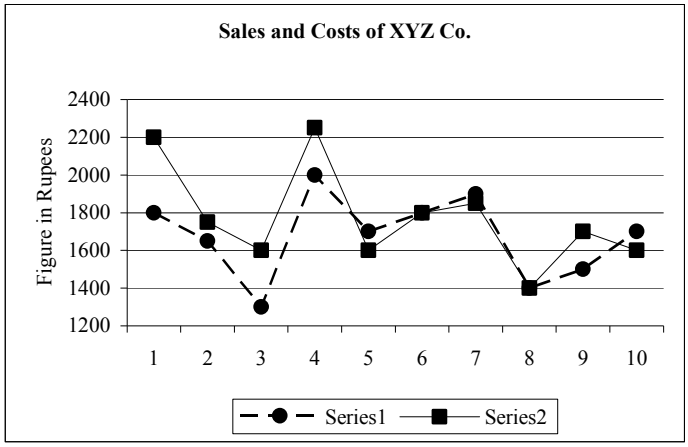
Directions (Qs. 74 & 75): are followed by two statement labeled as I and II. You have to decide if these statements are sufficient to conclusively answer the question. Choose the appropriate answer from options given below:

[1] If Statement I alone is sufficient to answer the question.
[2] If Statement II alone is sufficient to answer the question.
[3] If Statement I and Statement II together are sufficient but neither of the two alone is sufficient to answer the question.
[4] If either Statement I or Statement II alone is sufficient to answer the question.
[5] 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 600. 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 45^0

75. A, B, C, D, E and F re six integers such that E < F, B > A, A < D < B, C is the greatest integer
I. E + B < A + D
II. D < FII. D < F

Directions (Qs. 76 to 78): On the basis of the graph given below.



76. In which month did the company earn maximum profits?
[1] 1 **[2]** 4 **[3]** 3
[4] 2 **[5]** 5

77. In which month did the company witness maximum sales growth?
[1] 9 **[2]** 6 **[3]** 4
[4] 7 **[5]** 1

78. What were average sales and costs figures for XYZ Co. over the period of ten months?
[1] 1919, 1751 **[2]** 1819, 1651 **[3]** 1969, 1762
[4] 1719, 1601 **[5]** 1619, 1661

Directions (Qs. 79 to 82): Answer the 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.

India

	Primary (I–V) Classes			Elementary (I–VIII) Classes			Secondary (I–X) Classes		
1996–97	39.7	40.9	40.2	54.3	59.5	56.5	67.3	73.7	70.0
1997–98	37.5	41.5	39.2	53.8	59.3	56.1	66.6	73	69.3
1998–99	40.9	41.3	41.5	54.2	59.2	56.3	64.5	69.8	66.7
1999–00	38.7	42.3	40.3	52.0	58.0	54.5	66.6	70.6	68.3
2000–01	39.7	41.9	40.7	50.3	57.7	53.7	66.4	71.5	68.6
2001–02	38.4	39.9	39.0	52.9	56.9	54.6	64.2	68.6	66
2002–03	35.8	33.7	34.8	52.3	53.5	52.8	60.7	65.0	62.6
2003–04	33.7	28.6	31.5	51.9	52.9	52.3	61.0	64.9	62.7
2004–05	31.8	25.4	29.0	50.4	51.2	50.8	60.4	63.8	61.9

79. Based on the data above, choose the true Statement from the following alternatives:
[1] Gender bias in primary education has consistently decreased over the years.
[2] Gender bias decreases as students move from primary to secondary classes.
[3] Total dropout rate decreased consistently for primary classes children from 1996–97 to 2004–05.
[4] Gender bias was consistently highest for secondary classes.
[5] 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?
[1] 1997–98 **[2]** 1996–97 **[3]** 1998–99
[4] 1998–99 **[5]** 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?
[1] 1475 **[2]** 1573 **[3]** 1743
[4] 1673 **[5]** 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) ?
[1] 18500 **[2]** 19500 **[3]** 16000
[4] 24500 **[5]** 11500

Directions (Qs. 83 to 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 sometimes end up as _____, but rarely would someone use them as an _____.
[1] epitaphs, Epitaphs, epigrams, epigraph
[2] epigraphs, Epigraphs, epitaphs, epigraph
[3] epigrams, Epitaphs, epigrams, epigraph
[4] epigrams, Epigrams, epigraphs, epitaph
[5] epitaphs, Epitaphs, epigraphs, epigram

84. A candidate, in the medical viva voice exam faced a tingle 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.
[1] ambivalence, prostrate, amoral, immoral
[2] ambivalence, prostate, immoral , amoral
[3] ambiguity, prostrate, amoral, immoral
[4] ambivalence, prostrate, immoral, amoral
[5] 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.
[1] quite, quite, ordinances **[2]** quite, quiet, ordnances **[3]** quiet, quite, ordinances
[4] quite, quiet, ordinances **[5]** quiet, quiet, ordinances

86. If a person makes the statement : "I never speak the truth." The person can be said to be _____

[1] speaking the truth
[2] making a logically contradictory statement.
[3] lying
[4] lying as well as speaking the truth
[5] partially speaking the truth and partially lying.

Directions (Qs. 87 to 89): Carefully read the statement in the questions below and arrange them in a logical order.

87. 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 if the case is accidental. What makes it non–accidental cannot lie within the world, since if it did it would it self be accidental. It must lie outside the world.
3. It is clear that ethics cannot be put into words. Ethics is transcendental.
4. All proportions are of equal value:

[1] 2–1–3–4 **[2]** 1–3–4–2 **[3]** 4–3–1–2
[4] 3–1–2–4 **[5]** 4–2–1–3

88. 1. The fact is 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 is mystical

[1] 1–2–3–4 **[2]** 2–1–4–3 **[3]** 2–1–3–4
[4] 3–1–4–2 **[5]** 3–4–1–2

89. 1. The operation is what has to be done to one proposition in order to make other out of it
2. Structure of proportion 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 ate bases of the operation):
4. An operation is the expression of a relation between the structures of its result and of its bases.

A. 1-2-34 B. 4-3-1-2 C. 2-1-3-4
D. 4-1-2-3 E 2-3-4-1

Directions (Qs. 90 to 96): Analyse the following passage and provide an appropriate answer for the 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. Modem 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 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 geo-graphic 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" or "law" that ties actions to results and creates a determinant link between an individuals 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 issued in the Hindu world view that karma encompasses, at the same time, life-affirming and life-negating 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" 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 dermed. 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 "fruit", a term that suggest the "ripening" of actions into consequences), and the valuation of "ethic–ization" of acts, qualifying them as either "good" (punya a or sukaman 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).

90. "Reify" in the passage means:
[1] Reversal of stance **[2]** Unitary whole **[3]** Diversity
[4] Unity in diversity **[5]** To make real out of abstract

91. "Ethic-ization" in the passage means
[1] Process of making something ethical
[2] Judging and evaluation
[3] Converting unethical persons into ethical
[4] Teaching ethics
[5] None of the above

92. Consider the following statements:
1. Meaning of karma is contextual.
2. Meaning of karma is not unanimous.
3. Meaning of karma includes many other quasi-independent concepts. .
4. Karma also means actions and their rewards.
Which of the above statements are true? Which of the above statements are true?
[1] 1, 2, 3 **[2]** 2, 3, 4 **[3]** 1, 3, 4
[4] None of the above **[5]** All the four are true

93. The base meaning of karma is:
[1] reward and punishment.
[2] only those actions which yield a "phala".
[3] ripening of actions into consequences.
[4] any action.
[5] None of the above

94. As per the author, which of the following statements is wrong?
[1] India is a diverse country.
[2] Doctrine of karma runs across divergent' Hindu thoughts.
[3] Doctrine of karma has a rich scholarly discourse.:
[4] Modem scholars have studied Hinduism as a syncretic whole.
[5] Scholars could not resolve the meaning of karma.

95. 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?
[1] Karma is judged based on the observers' perception; and hence the observer is a necessary condition for its validity.
[2] Karma is an orientalist concept limited to oriental countries.
[3] Each epoch will have its own understanding of karma and therefore there can not be uniform validity of the concept of karma.
[4] The information of the past actions and the righteousness of each action would be embodied in the individual.
[5] Each space-time combination would have different norms of righteousness and their respective expert panels which will judge each action as per those norms.

96. The orientalist perspective, according to the author.
[1] Viewed India as a country of diversity.
[2] Viewed India both as single and diverse entity.
[3] Viewed India as land of karma.
[4] Viewed India in the entirety.
[5] Viewed India as if it was a single and unitary entity devoid of diversity.

Directions (Qs.97 to 100): Analyse the passage given and provide an appropriate answer for the question.

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 individualism 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 opposites 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 lung'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 me individualism 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 along-side structures or processes in those other schools which play similar mediatory and/or transitional roles.

97. The above passage is most likely an excerpt from:
[1] A research note
[2] An enter on a psychopathology blog
[3] A popular magazine article
[4] A scholarly treatise
[5] A newspaper article

98. It can be definitely inferred from the passage above that
[1] The expansive transcendent function would include elements of both the Consciousness and the Unconscious.
[2] Archetypes emerge from the narrow transcendent function.
[3] The whole work, from which this excerpt is taken, primarily concerns itself with the inconsistencies in Jung's writings.
[4] The transcendent is the core of the individuation process.
[5] Jung's pantheon of concepts subsumes the root metaphor of psyche.

99. A comparison similar to the distinction between the two images of the transcendent function would be: -
[1] raucous: hilarious **[2]** synchronicity: ontology **[3]** recession: withdrawal
[4] penurious: decrepit **[5]** none of the above

100. 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):
[1] Stereotype **[2]** Anomaly **[3]** Idealized model
[4] Original pattern **[5]** Epitome

Directions (Qs. 101 to 103): Analyse the passage given and provide an appropriate answer for the question nos. 102 to 104 that follow.

Deborah Mayo is a philosopher of science who has at tempted to capture the implications of the new experimental-ism 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 at 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' be-cause, 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 then presented them with some alternative laws of refraction that had been suggested in antiquity and medieval 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.

101. Which of the following conclusion can be drawn from the passage?
[1] Precise measurement is a sufficient condition to ensure validity of conclusions resulting from an experiment.
[2] Experimental data might support multiple theoretical explanations at the same time, hence validity of theories needs to be tested further.
[3] Precise measurement is both a necessary and sufficient condition to ensure validity of conclusions resulting from an experiment.
[4] Precise measurement along with experimenter's knowledge of the theory underpinning the experiment is sufficient to ensure the validity of conclusions drawn from experiments.
[5] All of these

102. As per Mayo's perspective, which of the following best defines the phrase "scientific explanation"?
[1] One which is most detailed in its explanation of natural phenomena.
[2] One which survives examinations better than other explanations.
[3] One which has been thoroughly tested by scientific experts.
[4] One which refutes other explanations convincingly.
[5] All of these.

103. The author's use of Snell's law of refraction to illustrate Mayo's perspective can best said to be
[1] Contrived **[2]** Premeditated **[3]** Superfluous.
[4] Inadequate **[5]** Illustrative.

Directions (Qs. 104 to 113): Go through the caselets below and answer the questions that follow.

Questions (104 & 105): 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 s/he should be paid more. CEOs' salary should be related to performance, especially growth in terms of sales and profits. Of course, 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 organizations are more stressed than CEOs of small organisations. All CEOs should be paid according to their performance.

104. A person seeking to refute the argument might argue that
[1] CEO should be paid equally
[2] Managing big organisation is more challenging than small
[3] If CEOs of small companies perform well, the company would become big and so would be CEOs' salary.
[4] CEOs, who travel more should be paid more
[5] Highly qualified CEOs should be paid more because they have acquired difficult education.

105. Which of the following, if true, would strengthen the speaker's argument?
[1] CEOs of small organisations come from good educational background.
[2] CEOs of big organisations are very difficult to hire
[3] A few big family businesses have CEOs from within the family.
[4] CEOs in big organisation take much longer to reach top, as compared to their counterparts in small organisations.
[5] Big organisations contribute more towards moral development of society.

Directions (Qs. 106 & 107): Hindi ought to be like 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.

106. Which of the following, if true, would weaken the speaker's argument the most?
[1] The government currently translates official documents into more than eighteen languages.
[2] Hindi is the most difficult language in the world to speak.
[3] Most people who travel across India learn Hindi within five years
[4] Making Hindi the official language is a politically unpopular idea
[5] People Who are multilingual usually pay maximum taxes.

107. 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 planel, 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?
[1] The point above contradicts the speaker's argument.
[2] The point above is similar to speaker's argument.
[3] The point above concludes speaker's argument.
[4] The point above extends the speaker's argument.
[5] The point above strengthens the speaker's argument.

Directions (Qs. 108 & 109): 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.

108. Which of the following arguments is used in the above passage?
[1] Emotive-referring to the safety of children to get people interested.
[2] Analogy-comparing the intersection to something dangerous
[3] Statistical analysis-noting the number of children hit by vehicles
[4] Personalization-telling the story of one child's near accident at the intersection
[5] Attack-pointing out people who are against speed-breakers as being uncaring about children

109. According to a recent research conducted by the district road planning department, ten percent students come with parents in cars, twenty percent students use auto-rickshaws, twenty percent students use taxis, forty percent 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?
[1] It extends speaker's argument using analogy
[2] It contradicts the speaker's argument using statistical data
[3] It extends the speaker's argument using Statistical data
[4] It's similar to speaker's argument.
[5] It concludes speaker's argument by using personalization.

Directions (Qs. 110 & 111): 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.

110. Which of the following summarizes the above paragraph?
[1] Scientific achievements are recorded in classics and text books.
[2] Different ways of looking at history can produce altogether different knowledge.
[3] History of science can be inferred from finished scientific achievement
[4] Text books may be biased.
[5] All of above.

111. Which of the following statements is the author most likely to agree with?
[1] History of science presents a scientific way of looking at scientific developments and thus contributes to progress in science.
[2] History of science should contain only the chronology of the scientific achievements.
[3] More number of scientific theories results in more number of publications, which benefits publishers.
[4] History of science should purposely present different images of science to people.
[5] History of science can present multiple interpretations to people regarding the process of scientific developments.

Directions (Qs. 112 to 117): Analyse the passage given and provide an appropriate answer for the question nos. 113 to 118 that follow.

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 not 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 a general objective like the sate 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 judgments. Hence the importance of consumer confidence surveys, as consumer confidence typically reflects national mood. There is mood - congruence when thoughts and actions fall inline 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 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 psycho-logical 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 stilted 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 recognize the phenomenon and talk about the national mood being, say for or against conspicious 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 calm-energy state, since these are the polar extremes and are more likely to influence behaviour. Artists sensitive to national moods express the long-term changes. An example is 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.

112. Which one of the following statements best summarizes the above passage?
[1] The passage highlights how moods affect nations.
[2] The passage draws distinction between moods and emotions.
[3] Some writers influenced national moods through their writings.
[4] Thayer categorised moods into four states.
[5] The passage highlights the importance of moods and emotions in marketing.

113. What is "moods congruence"?
[1] When moods and emotions are synchronized.
[2] When emotions are synchronous with actions and thoughts.
[3] When moods are synchronous with thoughts and actions.
[4] When moods are synchronous with thoughts but not with action.
[5] When moods are synchronous with action but not with thought.

114. 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
[1] Both statements are implications.
[2] First is implication, second is proposition
[3] Both are, propositions.
[4] First is proposition, second is implication.
[5] Both are neither implication nor proposition

115. Which statements from the ones given below are correct?
1. In general, emotions are object specific
2. In general, moods are not object specific
3. Moods and emotions are same
4. As per Thayer, moods are a mix of biological and psychological influences.
[1] 1, 2, 4 **[2]** 1, 2, 3 **[3]** 2, 3, 4
[4] 2, 4, 3 **[5]** All four are right

116. The statement "Moods provide energy for human actions" is
[1] always right
[2] always wrong
[3] not derived from the passage.
[4] contradictory
[5] sometimes right

117. Which of the following is the closest to "conspicuous consumption" in the passage?
[1] Audible consumption,
[2] Consumption driven by moods/ and emotions
[3] Socially responsible consumption
[4] Private but not public consumption
[5] Consumption of material items for impressing others

Directions (Qs. 118 & 119): Go through the caselets below and answer the questions that follow.

118. The author reflects oh 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
[1] defining Blue Ocean Strategy
[2] developing the framework for Blue Ocean Strategy.
[3] reviewing an. article or book on Blue Ocean Strategy.
[4] highlighting how Blue Ocean Strategy leads to better returns.
[5] None of above.

119. 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 pf 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?
[1] Core competence can be used for furthering company's interests.
[2] Production and marketing is core competence of Goodricke Group,
[3] Increase in production of existing products enhances core competence.
[4] Core competence leads to modernization.
[5] Goodricke has given top priority to production because it has earned net profits of Rs.5.49 crore.

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