Classic MoCAT - 2

INSTRUCTIONS FOR THE TEST

1. The total time for the test is **120 minutes**.

2. This test is divided into **three parts** totally comprising 50 questions each. All question in the test carry equal marks.

3. You may work **on any part of the test** at any time during the test.

4. For each question, four suggested answers are given of which only one is correct. There are four circles against each question number in the answer sheet. Each circle is designated as 1, 2, 3, 4 corresponding to your answer choices. Mark your response to each question by **darkening the circle** completely.

5. The last part of this test booklet comprises a **sample bubble sheet**. It is suggested that you answer all questions by shading the relevant oval in the bubble sheet.

6. Confine all rough work to whatever blank space is available in this test booklet. **No additional paper** may be used.

7. Using a HB pencil only. Use of calculators, scales and other measuring instruments is **not permitted**.

8. You will be required to demonstrate **adequate competence** on each of the three parts.

9. Wrong answers carry negative marks. The **negative marking scheme** is 1/4 of the marks allotted to the question. Hence desist from guessing wildly.

10. After marking your responses on the bubble sheet, visit www.cavindia.com. In the "latest news" scroller, you will find a link that leads to **further instructions** regarding uploading your responses, evaluation of your paper and percentiles.

11. You are **required to register** on cavindia.com with your pagalguy.com username. You will be allowed to register on cavindia.com from Saturday 1.00 p.m. onwards. The **deadline** for submitting your responses on Classic MoCAT 2 onto cavindia.com is 25th July, Monday, 9.00 p.m.

12. **Answer Key** to this test will be put up on pagalguy.com on Monday at 10.00 p.m. Career Avenues will put out a **percentile performance report** on cavindia.com by Tuesday 10.00 p.m., and this can be accessed using your username and password on www.cavindia.com.

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SECTION I
QUESTIONS: 50

1. ABCD is a square with the length of its diagonals AC and BD as $8\sqrt{2}$ c.m. AB is extended to E such that CE is parallel to BD. What is the area of the triangle ACE ?
1] 64 sq.cm. 2] 128 sq.cm. 3] 48 sq.cm. 4] 76 sq.cm.

2. A new mosquito mat's effective area is initially a distance of 8 metres all around it. Its effect diminishes by 1 metre every hour, and ends at the end of 8 hours. If a new mat is kept in the center of a large room, then what is the area of the region (on the floor) that was initially protected when the mat was introduced, but not protected at the end of 4 hours ?
1] 154 sq.mts. 2] 48 sq.mts. 3] 36 sq.mts. 4] 112 sq.mts.

3. In a six-team football tournament, each team plays against the others only once. The teams are A, B, C, D, E and F, and the team (or teams) with the highest points is declared winner. A team gets 5 for a win, 3 points for a draw, and a penalty of -2 awarded for a loss.

The result at the end of all matches for some of the teams is given in the order (wins, draws, losses). A ➔ (2,2,1), B ➔ (2,1,2), C ➔ (0,4,1), and D ➔ (1,3,1). Based on the above data, what is the maximum number of winners the tournament can possibly have ?
1] 2 2] 1 3] 3 4] indeterminate

4. In a test of 100 marks, 3 participants A, B and C score a total of 240. In another test of 150 marks, three participants C, D and E score an average of 65 marks. If all participants score integral values as scores, then what is the maximum possible average marks scored by C if no person among the 5 scored full marks or less than 30% marks ?
1] 102 2] 142 3] 117 4] 99

5. A boo-hockey team has 6 players. From team A, each scored more than 10 points but less than 25 and each scored a different number of points. From team B, each scored more than 8 points but less than 20 and each scored a different number of points. If team B defeated team A then what could be the maximum difference in points between the two teams ?
1] 18 2] 19 3] 20 4] none of these

6. If $x + a$ is the HCF of $x^2 + px + q$ and $x^2 + kx + m$, what is the value of $\frac{q-m}{p-k}$?

1] a 2] $\frac{1}{a}$ 3] a^2 4] $\frac{1}{a^2}$

7. If $f(x) = \frac{x-1}{x+1}, x \geq 0$ and if $y = f\left(\frac{1}{x}\right)$ then
1] As x decreases, y decreases 2] As x increases, y decreases
3] As x increases, y increases 4] As x increases, y remains unchanged

8. For what values of 'x' is $3|x| - |x-3| \geq 0$

I. $x \geq 3$ II. $x \geq 0$ III. $x \geq \frac{3}{4}$ IV. $x \leq -\frac{3}{2}$

1] Only I & II 2] Only IV 3] Only III & IV 4] Only II & IV

9. The weather during Ghosh Babu's vacation was strange. It rained on 15 different days, but it never rained for a whole day. Rainy mornings were followed by clear afternoons. Rainy afternoons were preceded by clear mornings. There were 12 clear mornings and 13 clear afternoons in all. How long was the vacation?
1] 15 days 2] 20 days 3] 25 days 4] 40 days

10. If an arc of 60^0 on circle I has the same length as an arc of 45^0 on circle II, what is the ratio of the area of circle I to that of circle II ?
1] 16 : 9 2] 9 : 16 3] 4 : 3 4] 3 : 4

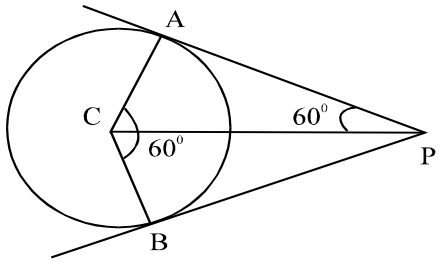
11. Organising a party requires a lot of effort. In a buffet salad party, the host had 4 different vegetables for salads. How many different salads can a guest make from the four vegetables - lettuce, cucumber, carrot, and mushrooms, if even a single vegetable is a salad ?
1] 12 2] 16 3] 15 4] none of these

12. In a friendly competition of pie-throwing, any person hit by a pie is assumed dead. All members of both teams simultaneously throw one pie at the other team. Initially the blue team has 135,000 and a green team has 90,000 members. In a direct confrontation, 1 out of every 3 pies thrown by any team inflicts a casualty. If the two teams throw the pies at the same time, then what is the ratio of the members alive between the two teams after 2 rounds of pie-throwing by both teams ? (Dead people do not throw pies)
1] 6 : 1 2] 7 : 2 3] 9 : 1 4] 9 : 2

13. ABCD is a parallelogram. X is a point on AC such that BX is perpendicular to AC. Which of the following options contains valid magnitude combinations of AC (in c.m.), BX (in c.m.) and area of the parallelogram ABCD (in $c.m.^2$) respectively ?
1] 10, 4, 20 2] 10, 4, 40 3] 10, 2, 80 4] 10, 2, 40

14. A cube is divided into 8 equal cubes. Each of these cubes is further sub-divided into 8 equal cubes. What is the ratio of the surface area of the smallest cube as a percentage of the original cube ?
1] $\frac{1}{16}$ 2] $\frac{1}{64}$ 3] $\frac{1}{256}$ 4] $\frac{1}{4}$

15. In the following figure, if length of minor arc AB is $\frac{4\pi}{3}$, and $\angle$ ACB = 60^0 then what is the area of the polygon ACBP ?



1] $16\sqrt{3}$ 2] $\frac{16}{\sqrt{3}}$ 3]$8\sqrt{3}$ 4] Indeterminate

16. Two teams participating in a competition had to take a test in a given time. Team B chose a test with 300 questions, and team A the test with 10% less questions. Team A completed the test 3 hours before schedule while team B completed it 6 hours before schedule. If team B answered 7 questions more than team A per hour, how many questions did team A answer per hour ?
1] 15 2] 18 3] 21 4] 24

17. Mr.Ghosh wants to fence his square shaped field with each side measuring 120 ft. If the posts have to put at a distance of 12 ft each, how many posts are required ?
1] 38 2] 39 3] 40 4] 36

18. Two successive discounts of x per cent and y per cent are given. When is the net discount highest given x + y = k (k = constant) ?
1] $k > x > y$ 2] $x < y < k$
3] $x = y$ 4] $x = k, y = 0$ or $y = k, x = 0$

19. Surekha works for a book marketing company and gets a stipend of Rs.3800. She also gets commission on books sold at the rate of Rs.8 per copy for first 25 copies, Rs.10 per copy for the next 25 copies, Rs.12 per copy for the next 50, and for every copy sold thereafter, she gets Rs.15 per copy. If in a month she makes Rs.4430, how many books did she sell?
1] 58 2] 60 3] 65 4] None of these

20. For a real number x, [x] denotes the integral part of x. That is [x] is the largest integer less than or equal to x. For example [1.33] = 1 and [–1.33] = –2. What is the value of $\left[\frac{1}{2}\right]+\left[\frac{1}{2}+\frac{1}{100}\right]+....\left[\frac{1}{2}+\frac{99}{100}\right]$?
1] 49 2] 50 3] 48 4] 51

21. If a and b are positive real numbers such that a + b = 1, then what is the minimum value of $\sqrt{12+\frac{1}{a^2}}+\sqrt{12+\frac{1}{b^2}}$?
1] 8 2] 16 3] 24 4] 4

22. In a charity show an NGO invites donors to raise money for earthquake relief. The NGO manages to get 40% of the targeted funds from 60% of the donors. 10% of the donors are unable to make any payment. If the NGO still manages to raise the targeted amount, then how much more do the remaining donors pay over the average paid by all donors who attended the charity show ?
1] 50% 2] 100% 3] 200% 4] 150%

23. In a test of 12 questions, a candidate gets 1 mark for every right answer, 0 for unanswered questions, and a negative 0.25 for every wrong answer. What are the total number of ways in which a particular candidate may score a positive integral value of net score ?
1] 13 2] 17 3] 21 4] 23

24. In a wholesale shop, 3 tonnes of rice and 2 tonnes of wheat cost Rs. 800, one tonne of wheat and two and a half tonnes of barley cost Rs. 850 and 3 tonnes of maize and half tonne of barley cost Rs. 3150. If I plan to buy 5 tonnes each of the 4 grains, what is my total outflow ?
1] 8000 2] 9000 3] 9160 4] Indeterminate

DIRECTIONS for questions 25 to 27 : Read the data below.
Three friends Roxy, Tony, and Appu stand on the bank of a straight river of uniform width. They walk this path everyday, and are totally aware of all distances. The river can be crossed by a bridge 2 km away from where they stand.

The original plan is that Roxy is to swim parallel to the bridge and wait for the others who would walk to the bridge, then across it, and then to where Roxy stood, and join him exactly in 20 minutes. Tony and Appu walk for 5 minutes from their original position, and then deviating from the plan, Tony decides to swim parallel to the bridge and wait on the other side for Appu.

Appu reaches the bridge in 4 minutes, rests there for a while which again was not scheduled in their original plan, and meets Tony 15 minutes since they had parted ways.

25. On meeting Tony, if Appu and Tony walk towards the spot where Roxy is waiting, how many minutes have elapsed between Roxy leaving the duo and then meeting them again ?
1] 20 2] 25 3] 23 4] 30

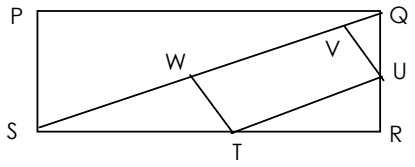
26. How much time does Appu take to cross the bridge ?
1] 2 minutes 2] 3 minutes 3] 4 minutes 4] Can't say

27. Assuming that the walking and swimming speeds of the three friends is uniform and equal, what is the distance (in km) that Appu has to walk to meet Roxy ?
1] 4.44 2] 5 3] 6.25 4] 4.2

28. My wife and I attended a dinner party at which there were four other couples Mr. and Mrs. Anand, Mr. and Mrs. Banerjee, Mr. and Mrs. Chawla, and Mr. and Mrs. Dewan. As introductions were made, a certain number of hands-shakes were made.
A. No one shook the hands of his or her spouse.
B. No one shook another person's hand more than once.
How many hand shakes were made altogether ?
1] 15 2] 30 3] 40 4] none of these

29. A milkman claims to sell milk at the cost price but actually mixes water and milk in the ratio 1 : 4. By selling this product, his revenue is Rs. 600 every day. The amount of milk remains the same every day. One day his revenue is Rs. 560 by selling the product at its normal fixed price of Rs. 10 per litre. What is the proportion of water in milk on that day ?
1] 15% 2] 12% 3] 17.5% 4] 16.6%

30. PQRS is a rectangle and T and U are the midpoint of the sides SR and QR respectively. What fraction of the area of the rectangle PQRS is the area of the rectangle TUVW ?



1] 1/16 2] 1/8 3] 1/6 4] ¼

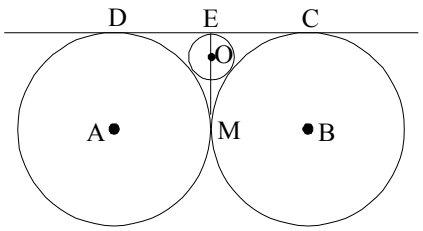
31. A particular shop sells goods at cost. A person buys goods worth Rs.60 from the shop and gives the shopkeeper a Rs.100 note. As the shopkeeper does not have change to give his customer, he exchanges this Rs.100 note for ten Rs.10 notes from the bank to settle accounts with the customer. The next day, the banker returns the Rs.100 note claiming it to be a counterfeit and takes two Rs.50 notes from the shopkeeper. If the note was actually a counterfeit, what is the total loss to the shopkeeper ?
1] Rs.140 2] Rs.100 3] Rs.160 4] Rs.200

32. In a strike called by a union, a part of the 1500 employees of the company reported for work while the others were on strike. The next day, 4% of the striking workers reported for work and 6% of the working employees joined the strike. If number of striking workers on both days were the same, how many workers were striking ?
1] 500 2] 600 3] 900 4]Indeterminate

33. When Sona and Tina went for shopping initially Sona had twice the money than Tina. They together bought things amounting to Rs.250. Out of which Tina's share was 60%. At the end Sona was left with thrice the amount that Tina had. What was the amount with Tina at the beginning ?
1] Rs.325 2] Rs.350 3] Rs.375 4] Rs.400

34. Abu sells bonds of company C, paying interest rate @ 5% p.a. to buy bonds (of same face value as company C) of company B which bears an interest rate of 6% p.a. However, he has to pay Rs.500 as transaction fees of the broker. Still he is going to earn an additional income of Rs.175 every month. What is the initial amount invested by Abu in the hands of company C ? [All transactions take place at face value.]
1] Rs.175,000 2] Rs.213,000 3] Rs.227,000 4] Rs.197,500

35. Three circles touch each other externally and all the three touch a line as shown in the figure. If two of them are equal and the third has radius 2 cm, what is the radius of the equal circles?



1] 16 cm 2] 12 cm 3] 8 cm 4] 10 cm

36. What is the number of digits in $48^4 \times 5^{12}$?
1] 13 2] 12 3] 14 4] 16

DIRECTIONS for questions 37 to 41: Refer to the following game of dice.

Two dice are thrown simultaneously. For each throw points equal to the sum of the numbers on the two dice are awarded. A bonus of 15, 10, and 5 points is awarded for sum less than 4, more than equal to 4 but less than 8, and more than equal to 8 but less than 12, respectively. A penalty of 2 points is awarded for two consecutive throws of same sum or two consecutive throws of different sums but within the same bonus category.

Assume each die to be a cube with 1 being the smallest number on any of its sides. The other numbers are in increments of 1.

37. Maximum number of points possible at the end of two throws is
1] 33 2] 35 3] 37 4] 40

38. Score at the end of three throws is 41. Which of the following cannot be the sum of numbers in anyone of the three throws?
1] 3 2] 4 3] 5 4] 6

39. Penalties for two different reasons are awarded in three throws. Minimum possible score is
1] 32 2] 34 3] 36 4] 38

40. Maximum possible score in 5 throws is
1] 82 2] 86 3] 88 4] 90

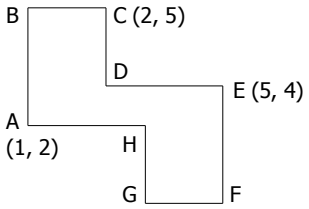
41. No penalty is awarded in four throws. What is the difference between the maximum and minimum possible score ?
1] 14 2] 16 3] 18 4] 20

42. Using the digits 0, 1, 2, 3, 4, 5 and 6, how many 4 digit numbers can be formed such that no digit is repeated and the four digit number is divisible by 5 ?
1] 220 2] 240 3] 120 4] 100

43. A line is drawn through the intersection point of $y = \sqrt{3}\ x + 10$ and $y = -\sqrt{3}\ x + 10$. This line is also the bisector of the angle formed by the above two mentioned lines. What is the slope of the line.
1] $\sqrt{3}$ 2] 1 3] infinite 4] Indeterminate

44. When a truck travels at 60 mph, it uses 30% more diesel to travel any distance than it does when it travels at 50 mph. The truck can travel 20 miles on a gallon of diesel if it is travelling at 50 mph. The truck has only 10 gallons of diesel and is 160 miles from its destination. It takes 20 minutes for the truck to refuel. How long will it take the truck to reach its final destination, if the truck is driven at 60 mph ?
1] 160 minutes 2] 180 minutes 3] 192 minutes 4] 190 minutes

45. $\angle A = \angle B = \angle C = \angle D = \angle E = \angle F = \angle G = \angle H = 90$. Also, AB = AH = EF = DE, and BC = CD = HG. What is the area of the figure ABCDEFGH ?



1] 6 2] 8 3] 10 4] 12

46. The series $2^{\frac{1}{4}} \times 4^{\frac{1}{8}} \times 8^{\frac{1}{16}} \times 16^{\frac{1}{32}}$.....is equal to

1] 1 2] 2 3] $\frac{3}{2}$ 4] $\frac{5}{2}$

47 If f and g are real functions defined by f(x) = x + 2 and $g(x) = 2x^2 + 5$, then fog is equal to
1] $2x^2 + 7$ 2] $2x^2 + 5$ 3] $2 (x+2)^2 + 5$ 4] 2x+ 5

48. If 2S = a + b + c , the value of $(S - a)^3 + (S - b)^3 + 3 (S - a) (S - b) c$ is equal to
1] a^3 2] b^3 3] abc 4] c^3

49. Given $\frac{x^2 - 1}{x} = 5$, then what is the value of $\frac{x^6 - 1}{x^3}$?
1] 110 2] 140 3] 125 4] Indeterminate

50 . If a and b are the roots of the equation $x^2 - 10x + 16 = 0$, the value of (1 – a) (1 – b) is
1] –7 2] 7 3] 16 4] –16

SECTION II
QUESTIONS: 50

Instructions for questions 51 – 55: In each of the following questions, you are given a complete sentence. Then you are given specific instructions relating to the rewritten sentence with four answer choices 1, 2, 3, and 4. In rewriting the sentence, make whatever changes the new sentence structure requires without changing the basic meaning of the sentence. Then read the answer choices carefully and select the answer that is best.

Remember that the original sentence is not necessarily wrong. You are requoting it either to improve it or recast it. There may be several ways of rewriting the sentence, but only one of the answer choices will enable you to complete the sentence. Also, while you will be changing the original sentence, you must not alter its original meaning.

51. A good dictionary might be used as an ideal first aid for increasing your command of words.
Rewritten:
An ideal way to .... The next word in the rewritten sentence is
1] use 2] increasing 3] increase 4]develop

52. The panorama of the incredibly high Himalayas viewed from 'Tiger Tops' impels us to a closer look.
Rewritten:
One feels .... The next word in the rewritten sentence is -
1] incredible 2] impelled 3] humbled 4] small

53. The application of machinery and science to agriculture led to an immense increase in the output of food.
Rewritten:
An immense increase in the output of food is .... Somewhere in the part of the rewritten sentence indicated by dots is the word
1] result 2] related 3] originated 4] led

54. In order that the basis for the curriculum improvement be a sound one, it is necessary to utilize research.
Rewritten:
Research must be .... The next word in the rewritten sentence is
1] necessary 2] basic 3] utilized 4]considered

55. In the nineteenth century, the people of the Balkans were stirred by the same enthusiasm for unity and freedom that inspired the Italians and the Germans.
Rewritten:
The enthusiasm ... Somewhere in the part of the rewritten sentence indicated by dots is the word.
1] stirring 2] from 3] also 4] had

Instructions for questions 56 – 62: Each question below contains six statements followed by four sets of combinations of three. Choose the set in which statements are logically related. i.e. where one of them is logically derived from the other two.

56. A. All executives are managers.
B. All managers are not executives.
C. All managers are doers.
D. All executives are paid well.
E. All managers are paid well.
F. Executives are paid well.
1] ADE 2] BED 3] ABE 4] ACF

57. A. Borax and Thorax are complementary.
B. Borax and Thorax are mixed together.
C. Borax is similar in structure to Thorax.
D. Complementary items are sold together.
E. Borax and Thorax are priced similarly.
F. Borax is sold along with Thorax.
1] ABE 2] DEF 3] ADF 4] ACF

58. A. Some machines are energy efficient.
B. Energy efficient machines are expensive.
C. The NX-C10 is a machine.
D. NX-C10 is energy efficient.
E. NX-C10 is expensive.
F. All machines are expensive.
1] CDB 2] ABF 3] CDF 4] FCE

59. A. No worker is a thinker.
B. Some who are smart are not workers.
C. Some thinkers are smart.
D. No thinker is smart.
E. Some thinkers are workers.
F. No worker is smart.
1] BDE 2] ADF 3] CDF 4] ACB

60. A. All those good at Maths are good at English.
B. Many of those who are good at English are bad at Maths.
C. Raju is good at Maths.
D. Raju is good at English.
E. Manu is good at English.
F. Manu is bad at English.
1] ADC 2] EBF 3] ABD 4] ECA

61 A. Power corrupts.
B. All forms of power results in loss of morals.
C. Power does not always corrupt.
D. Political power results in loss of morals.
E. Power need not result in a loss of morals.
F. One form of power is political power.
1] ABF 2] CDF 3] BDF 4] BCF

62. A. Many footballers are not good cricketers.
B. All cricketers are good footballers.
C. Ramki is a good cricketer.
D. Dharam is a good footballer.
E. Dharam is a good cricketer.
F. Ramki is a good footballer.
1] ADE 2] BCF 3] ACE 4] ACF

Instructions for questions 63 – 70: Sentence 1 is followed by 5 sentences labeled A, B, C, D and E. Choose the one that forms a coherent paragraph with sentence 1 as the starting sentence.

63. 1. Options, some investors groan, are available only for a handful of bluechips.
   A. Such options serve as proxies that make good losses incurred on a well-diversified portfolio, the ups and downs of which are likely to mirror the index.
   B. And even with a bluechip portfolio, buying assorted options for individual scrips is rather too expensive.
   C. The solution for such investors is the index option, which offers a call or put on a composite bunch of stocks representing the entire index.
   D. So actual availability of options is not much of an issue.
   E. This works especially well for a diversified portfolio of stocks with 'beta' values close to 1.
   1] EBCDA 2] CDBAE 3] CDEAB 4] BCAED

64. 1. Okay, so it'll be some time yet before protein-enriched potatoes can actually plug India's nutrition deficit.
   A. But the labs are busy, and the promise of biotech glory has upped the life sciences and genetic engineering ante.
   B. Nice number. But are they world-beaters?
   C. Or before DNA-group-specific medicines and diet targeted food brands hit the market.
   D. It's a specialization in which India turns out some 700,000 post-graduates and 1,500 PhDs every year.
   E. India alone has 800 biotech companies hoping to leverage the country's high-gray-matter concentration and low cost advantage to crack global apps.
   1] CEBAD 2] CADBE 3] CAEDB 4] CDEAB

65. 1. To feel less than someone or something – the definition of inferiority – is natural in childhood when we are surrounded by the incomprehensible and things that other, 'bigger' people seem to take in their stride.
   A. But if a child is made to feel inadequate in some way, this natural feeling can crystalise into a sense of not being good enough, clever enough, or able enough and years later surface as a sense of inferiority.
   B. A wise parent will reassure the child through explanation and ensure that he grows through each new experience.
   C. If, with practice, that expectation and attitude can be changed, the whole family can benefit.
   D. Often such a feeling can be handed down subliminally from parent to child, through many generations, without anyone realizing that this is happening.
   E. If, for instance, a family believes that it is a victim of circumstances, the expectation will develop that something awful is bound to happen.
   1] DCABE 2] BADEC 3] BCEDA 4] DECAB

66. 1. There are many types of cruelty, most of which could be safely said to arise from one person's need to have power over another.
   A. There may also be cruelty to animals, again because they are not able to retaliate.
   B. It is not for the victim to handle the emotions, although this is what often happens because the victim will try to make the situation better by placating the cruel person.
   C. This can often be against children who are not able to fight back, or against the elderly who may be too frightened or too weak to do so.
   D. There can be physical cruelty where there is violence against the person.
   E. Often such cruelty arises from anger or frustration, and the bully will need to learn how to handle these emotions in order to ensure that damage is not done.
   1] ABCDE 2] DEACB 3] EBDAC 4] DCAEB

67. 1. Not too long ago we were in the midst of intense baseball negotiations in which the S season and the World Series hung in the balance.
   A. It underscores how often negotiations almost seem to require a sense of imminent disaster before either side will begin to search for common ground.
   B. All this is minor, of course, compared with the razor's edge of war.
   C. Leaders of countries will, in the end, recall their duty to keep their homeland intact and their people secure.
   D. The brinksmanship between the Iraq and the US is enough to give rise a sleeping sheepdog a bad case of nerves.
   E. Around the same time, on the US West Coast, the conflict between longshoreman's union and the port of Long Beach-Los Angeles over contracts culminated in a 10-day shutdown at America's largest harbour, adversely affecting an estimated third of the US economy.
   1] ABCDE 2] EBDAC 3] BEDAC 4] ACDEB

68. 1. Four years ago, you could have written off Indo Rama Synthetics' Managing Director Om Prakash Lohia as yet another has-been.
   A. Lohia, whose polyester and fiber plant near Nagpur had just gone on stream, hadn't been ready for what happened: an almost overnight collapse of the global polyester market and widespread dumping by polyester manufacturers, depressing prices in the Indian market.
   B. In March 1998, Lohia ended the financial year with a loss of Rs. 87 crores and followed it up the next year with an even bigger loss of Rs. 159.6 crores.
   C. The East Asian crisis has just struck Lohia, a wannabe player in the polyester market, was watching his dreams go quickly sour.
   D. Margins in the polyester business plummeted from $1000 a tonne in 94-95 to about $200.
   E. Plus, there were high interest payouts and depreciation on Lohia's new plant.
   1] BACDE 2] CDEAB 3] CADEB 4] BCDAE

69. 1. If Henry Ford were to drive around Motown today in his Tin Lizzy, he'd be appalled by what's happening to cars.
   A. Customers not only care about the colour of their car, but want cars that boast of as much electronics on boards as a space shuttle.
   B. In fact, a bunch of researchers in California has made hands-free driving already a reality.
   C. It will do the driving for you.
   D. Touch-sensitive gears, multiple sensors, and GPS are some things that most hi-end cars already boast of.
   E. And not too far in the future, you might be driving a car…actually, you wouldn't be driving at all.
   1] DEBCA 2] ABDEC 3] DEAEB 4] ADECB

70. 1. Not very long ago, international consultants used to point to similarities between India and China.
   A. The transformation of China has been so complete that Indian companies are starting to view China as a market, not just a formidable competitor.
   B. China is the world's most successful case of economic development in recorded history.
   C. It has set itself apart by the size and growth of its economy, its superior infrastructure, and its seeming insulation from the threats of terrorism and sectarian violence.
   D. Then, China and India were roughly comparable in terms of their stages of development, size, infrastructure and security environment.
   E. Today, however, the two countries belong in very different categories.
   1] EADCB 2] DEBCA 3] DAECB 4] EBDAC

Instructions for the questions 71 – 75: Fill in the blanks by choosing the most appropriate pair.

71. Sometimes the thought _____ of Supreme Court go beyond the ____ of the ordinary man.
1] processes, comprehension 2] span, precincts
3] justification, privileges 4] magnitude, anticipation

72. The fundamental _____ of a patterning system is that sequence of arrival of information determines the pattern in which it is _____.
1] idea, distributed 2] characteristic, arranged
3] fault, accessed 4] basis, assigned

73. No matter how truly _____ an idea may be when introduced into the problem area, a connection will _____ develop.
1] disconnected , eventually 2] distinctive, indolently
3] grandiose, subsequently 4] marvelous, plausibly

74. Some gains may be _____, others only _____.
1] quantified, perceived 2] quantified, computed
3] supposed, perceived 4] multiplied, grow

75. Air India's recent measures to ____ crew cost and enhance competitiveness have been _____ by Shiv Sena , whose nexus with the Air India Cabin Crew Association , often prove to be a bottle neck to a reform.
1] curb, concerted 2] postpone, anticipated
3] curtail, undermined 4] augment, opposed

Instructions for Questions 76 – 100: Read the following passages and answer the questions that follow:

Passage – I

Among students of "biotic interactions" there has developed a controversial law or principle that is of more than academic interest, since it has social implications of the most far-reaching scope. The law has had many statements and many names and has become best known as The Principle of Competitive Exclusion, or Gause's Hypothesis, after the Soviet biologist G.F. Gause, whose experimental studies in the area appeared in a 1934 monograph, The Struggle for Existence (Williams & Wilkins Company, Baltimore, Md.). The principle as set forth in the Encyclopedia Britannica, 15th edition, states "Populations of two species cannot persist together for a very long time in the same community when both compete for and are limited by a common resource". The social problem to which this principles relates is that of two culturally isolated, non-interbreeding populations that occupy the same country.

Before we can focus on the social problem we must go back a bit into evolutionary and population biology to understand the implications of the Gause Hypothesis. Biologists usually define a species in terms of an interbreeding population. If such a population is isolated into two subgroups that do not interbreed because of geographical barriers, then each group experiences different environmental pressures and different genetic drifts. Eventually the descendants of the two original populations, many, many generation later, will be sufficiently speciated so that they will not interbreed. Two species will have arisen from a single initial species. Between the original species and the final two species there will be an intermediate stage at which the two groups will show morphological differences but will still interbreed. At this stage the two groups are subspecies or races. The same factors operate in human populations and it must be argued that if any human subgroup were kept in complete reproductive isolation from the rest of mankind it would eventually become a new species. Because human sexuality is periodically stronger than cultural barriers, this type of speciation seems most unlikely for Homo sapiens.

The consequence of the principle we have been discussing is that when two similar species find themselves in direct competition one of two things happens: 1) one species is eliminated by death or

displacement; 2) one species modifies its behavior either adaptively or genetically so there is no longer competition for a common resource. The two species can then coexist.

Two non-interbreeding human populations in the same community present a close analogue to the Gause Hypothesis. While in nature we have only genetic speciation, in human interactions we have cultural speciation, where members of two groups in a community do not interbreed for cultural rather than for biological reasons. If the two groups are in competition for a limited resource such as land, food, jobs, or housing, we must assume that the principle of competitive exclusion will operate and we will observe a period of unpleasantness and strife that will result in one of the sequels listed above. In human populations there is a third possibility: the cultural barriers are lowered and the groups merge to a single unit where intragroup competition rather than intergroup competition governs the subsequent behavior

The question we must raise asks about the possibility of a solution that does not consider the principle of competitive exclusion. Must not statesmen take into account the deep-rooted biological construct in the search for a solution? The theory allows three solution: 1) one group drives out or destroys the other; 2) two niches are created by partition or the creation of a highly class-oriented society with little resource competition; 3) cultural despeciation or the end to non-interbreeding. The theory suggests that any other solution will lead to continuing conflict.

76. Which of the following best explains the central idea of the passage?
1] Unless there is a considerable cultural speciation, humans cannot avoid the inevitable disintegration.
2] Unless cultural barriers between various groups are lowered the human race cannot escape the consequences of the Law of Competitive Exclusion.
3] The root cause of strife in the world is the cultural barriers which make biotic interaction difficult
4] Racial conflict prevalent in the world has deep biological causes.

77. The chief biological characteristics of a species is that the members of a species
1] are not culturally isolated
2] have similar genetic endowments
3] are not geographically isolated
4] interbreed

78. Which of the following statements is false?
1] The evolution of races is a biological state in the process of ultimate genetic speciation.
2] In 'biotic-interaction' it is more commonly found that one species often modifies its behavior adaptively or genetically rather then trying to eliminate the other or be eliminated by the other.
3] Gause's Hypothesis does not apply in cases where two species are not in competition for the same resources.
4] When cultural isolation between various groups is minimal, there is more of intragroup competition rather than intergroup competition.

79. Which of the following, if true, would considerably weaken the central thesis of Gause's Hypothesis?
1] Human sexuality is occasionally considerably stronger than cultural barriers.
2] Essential resources, in fact, are unlimited.
3] It is not possible genetically for any species to modify its behaviour
4] Each of the human races experiences the same genetic drifts.

80. Which of the following best expresses the meaning of the phrase " biological construct" (last para)?
1] genetic code
2] urgent necessity
3] dictates of our biological make up
4] imminent biological dangers

81. Among the 3 possible solutions to the problem the author states in conclusion, it can be inferred that he has a marked preference for solution no.
1] one group drives out or destroys the other
2] two niches are created by partition or the creation of a highly class-oriented society with little resource competition
3] cultural despeciation or the end to noninterbreeding. The theory suggests that any other solution will lead to continuing conflict.
4] None of the above

82. The author of the passage considers Gause's Hypothesis important because the hypothesis
1] throws considerable light on evolution of species
2] explains the concept of 'speciation' in a conclusive fashion
3] has far reaching social implications
4] is one of the cornerstones of modern biology

Passage II

Who is this man? You see him every day, sometimes on the street, sometimes in the ration shop, an ageless and timeless entity in the ever-changing world around him. And yet he is elusive. The man-in-the-street is no flesh-and-bone creature but a mere statistic, an apocryphal figure who is invoked by politicians and economists alike but with whom they are most comfortable as long as he remains abstract.

Let us go beyond abstraction and get to the concrete reality of this common man. This particular man is middle-aged, literate, obviously urban and with an income much higher than the average per capita income. This man lives with the very rich with their indifference to wealth and the very poor with their resignation towards misfortune. But can one define him merely in terms of the average per capita income or calorific intake of food or is there something more tangible about this man, his lifestyle, his work, his ambition, his struggles?

With a steady acceleration in the rate of inflation from 2.1 per cent in 1950-1960 to 9.2 percent in 1980-87, the dismal real per capita income growth of barely 1.5 per cent per annum has obviously eluded even this common man. What can this man buy with his one rupee note, which was worth 100 paise in 1950 and is now worth only 11 paise? Without inheritance and without really knowing the art of making easy money, he hardly has anything to fall back on in his old age except his meager pension, if he is what goes under the curious name of 'government servant' – and his son. After all, discharge of filial obligations still represents the most important element of social security in India.

Given the population growth rate of 2.2 persons per annum an average family size is 6.2. However, this man being urban and literate is likely to have a smaller family of only four members. Having reached the plateau of his life, his aspirations are directed towards his children – probably most towards his son. The desire to make his son as engineer or a doctor from the moment he is born takes the shape of nurturing him in an expensive English medium "convent school". However, the aspiration level may soon slide down to reconciling with reality, of the son becoming a bank clerk or a section officer. Even in that, luck will have to play a role because given the total educated job seekers being more than 16,452,000 the son may ultimately have to settle for any kind or job.

The common man's desire to rise higher on the social scale is quite great and he is thus unlikely to withstand consumerist pressures. He may succumb to acquiring second-hand assets or wait for his son's Lakshmi to bring the goodies home. At the same time, the preparation for his daughter's marriage starts from the time she is born while her education may or may not be in a "public" school. The social cancellation effect of this Lakshmi give-and-take, however, does not reflect in the case of individual households, as the gruesome figures of dowry deaths make clear.

The common man's efforts to meet the requirements of roti, kapada aur makan are valiant enough. He realises the importance of a good diet but the forbidding prices more or less make it imperative for him to go for something cheaper. Figures of availability of many important items of consumption, themselves ensure that the overall consumption level of his family is not very high. For instance, per

capita availability of sugar in 1986-87 was only 11.1 kg per annum, which works down to merely 30.2 gm. per day, sufficient only for a cup of tea or two. Although this man is depicted as wearing a dhoti, given the average per capita availability of cloth at less than 15 metres per annum, he is unlikely to wear such a garment.

However, his simple thinking and simple living does not deter the common man from aspiring to be a 'lakhpati' through the medium of a bumper lottery ticket or take refuge like 'Mungeri Lal' in his 'hasin sapne'. (A popular television serial where the protagonist is an economically average man who dreams of extraordinary riches). The top priority in his dream world is of course to own a flat or a small house.

The common man's familial and interpersonal links are strong enough to take him to his 'native place' once in every two or three years. And in ordinary dreary life, he manages to draw enough from his memories, his traditions, his religion, even without being overtly religious. The Club culture of the rich and the community culture of the poor are both absent from his life but he does take part enthusiastically in popular festivals. However, apart from his occasional picnic outings with his neighbours and friends, the prime time peep at the outside world through the Doordarshan window, the occasional movie in a cinema house, does he have anything else to distract him from his over-burdened and ever-growing responsibilities?

The common man is aware of political conditions, and feels strongly about corruption, annual budgets, high prices, his personal deprivation …. But does he voice them loud enough; does he have a solution or are his concerns lost somewhere in his daily struggle for a decent living? Is he happy with the state, which arises out of the wants of man? Is the common man optimistic about his future? Does this common man have a future?

In surveying the Indian economic context, in the end since we come up with questions rather than answers, the only conclusion that we can arrive at is that in the economy, as in society and politics, since so little can be said, much must be invented. Action is the essence of economic analysis.

83. For practical people like politicians and economists, the common man is …
1] a concrete reality. 2] a conventional abstraction.
3] a scapegoat. 4] a representative of a lost generation.

84. All the following characterise the common man except …
1] strong family ties. 2] simplicity in living and thinking.
3] strong community links. 4] interestedly watching Doordarshan.

85. In his old age the urban common man has to depend mainly on his …
1] accumulated savings. 2] pension
3] children's earnings. 4] inherited money

86. The 'Lakshmi' in the passage refers to the …
1] goddess of wealth. 2] inherited wealth. 3] dowry 4] lottery earnings.

87. The author mockingly mentions that it would be unrealistic to depict the common man clad in a Dhoti because
1] the dhoti is not commonly worn in urban areas.
2] the common man in a dhoti would look anachronistic.
3] there's not enough cloth produced by the country to make a dhoti for everyone.
4] None of the above.

88. According to the passage, which of the following statement is true?
1] The common man doesn't pay particular attention to his daughter's education.
2] Fatalism is one of the characteristics of the common man.
3] The common man doesn't try his best to improve his lot.
4] The common man is intellectually and politically active.

Passage III

Quantum mechanics was invented to jump two hurdles at which classical physics had shied. The first is the atom, with its negatively charged electrons orbiting a positive nucleus. The other is the pattern of radiation emitted by heated objects. According to classical physics, atoms should not exist. The moving electron should radiate away its energy; slow down and so spiral inwards and collapse. Classical physics also embarrassingly predicts that hot objects should radiate infinite amounts of energy in the ultraviolet part of the spectrum. They do not.

In the early years of this century, quantum mechanics managed to explain the awkward existence of atoms and the recalcitrant facts of radiation, thanks to a simple device. It assumed – with little justification at the time, except that the idea seemed to work – that physical quantities are not infinitely divisible but come in chunks, called quanta. It said that a quantum chunk of energy may be emitted or accepted unpredictably and instantaneously by a particle. In the case of the atom, the rules of quantum mechanics simply do not allow a rotating electron to radiate energy continuously. So the collapse of the atom is avoided.

Because there is no available amount of energy smaller than the quantum, nothing can be said to trigger such comings and goings of energy. In one sense, quantum mechanics describes, "quantum jumping" between energy levels as unpredictable and uncaused. This lack of causation is the first of many points at which quantum mechanics parts company with the ordinary conception of reality.

Others soon follow. Because energy comes in finitely large chunks, there are limits to the investigations of the universe. The Uncertainty Principle, enunciated by Werner Heisenberg in 1927, explains that measurements can be made only to a certain, fixed degree of precision.

This is because examining something involves bouncing light (or electrons or sound or your finger) off it. Light, it had earlier been shown by Einstein, is sometimes best regarded as a stream of particles called photons. Although they barely disturb large objects, such as golfballs, photons can knock an electron all over the place (which, incidentally, is how a photo-electric cell works). So if you try to fix the position of a particle, you can only do so at the expense of information about its speed, or vice-versa. The act of measurement interferes with what is being measured.

Uncertainty of measurement is only the beginning. Quantum mechanics gets rid of classical equations about objects with continuously variable qualities, like position, energy and mass. It replaces them with "wave functions", which merely give the probabilities of making particular observations at particular times and places (when such observations are actually made, the relevant wave function is said to collapse). These wave functions say nothing about any underlying reality: nothing is said about where something is, only about the chances of finding it in various places.

When applied to macroscopic objects, the wave-function equations conveniently give exactly the same predictions as classical mechanics. But in the field of the microscopic, they give very different results, which have the merit of being correct. Although experiments designed to catch out quantum mechanics are in progress, few physicists seriously expect its laws to be violated. In the 1980s several tests have pitted the theory against more traditional views of reality. Quantum mechanics won hands down each time.

89. Quantum mechanics was able to explain the existence of the atom through….
    1] Data from experimental research.
    2] Stating new assumptions
    3] Inferring from the past behavior of atoms.
    4] Hypothesising new wave functions.

90. From the passage, we can infer that the uncertainty principle leads to a trade off between….
    1] Speed and accuracy of information.
    2] Spatial position and velocity of particles.
    3] Information needs and the means of information collection.
    4] Photons from light and quanta from particles.

91. According to the passage….
1] quantum mechanics has been used only to explain the behavior of small objects.
2] Wave functions help us determine the locations of electrons at particular locations.
3] The atom collapses only when the wave function collapses.
4] There need not be a cause-effect relationship in quantum mechanics.

92. From the passage we can infer that scientists began developing quantum mechanics to….
1] Verify some of the findings of classical mechanics.
2] Counter some of the assumptions of quantum mechanics.
3] Help classical mechanics explain some events.
4] Devise a new theory of matter.

93. From the passage, we can infer that all of the following ideas were necessary to the development of the uncertainty principle except….
1] The idea of a 'photon'.
2] The finite divisibility of physical quantities.
3] The unpredictability of quantum jumps.
4] The instantaneous acceptance of energy by a particle.

94. Classical physics could not explain the existence of the atom because it believed that ….
1] physical quantities could not be of any size.
2] Movement of the electron would cause it to lose energy.
3] Electrons could not have negative charges.
4] Electrons could move continuously from a state of higher energy to lower energy.

Passage IV

Look back at the pages of history and you will find that Indians have always been entrepreneurial. India has produced great stalwards. The likes of JRD Tata, Walchand Hirachand, GD Birla, SI Kirloskar and Dhirubhai Ambani. There are few significant economies across the world where Indian entrepreneurs have not struck deep roots, few countries where they are not amongst the most successful of the immigrant communities. The Indian spirit of enterprise straddles the entire spectrum. From Silicon Valley to Wall Street. From the kiranawala to the high-tech start-up. From shipping and steel to software. From manufacturing to services. From Dunkin Donuts to Hotmail.com.

And yet, the key question for us to introspect with a sense of urgency is: how can India be a much more powerful incubator for entrepreneurship in the years to come, given the size of our country, our brainpower and business acumen? What can be done to spark the entrepreneurial spirit to a far higher intensity?

Firstly, I believe, a good place to begin with is right at the grass roots level – we need profound systemic changes in our method of education. Currently, the system pigeonholes individuals into a narrow range of disciplines and straight-jackets them into rigid career tracks. Given the overwhelming emphasis on grades, creativity and independent thinking end up taking a back seat. So how can we expect the spirit of curiosity and inquiry to develop in such a pressure cooker? The need of the hour is an education system that fosters exploration, questioning and debate. A system that can help each student to pursue a path that best stimulates their creativity and challenges him or her. The objective should be to create citizens who have the ability to think laterally. Students who are equipped to step out into the real world and become thought leaders rather then products of a machinery that churns out yet another commodity.

Secondly, at a different level, we need a shift in societal and individual attitudes. More often than not, our social environment tends to suppress precisely those attributes that are prized highly in an entrepreneurial culture. For instance, we still remain largely driven by a credential-oriented mentality that discourages individuals educational and professional paths. Striking out in an unknown direction is frowned upon and failure entails a very heavy price.

Regrettably, our environment also accords considerable premium to conformity. The nail that sticks out gets hammered in. I believe we need to develop a much greater tolerance for the tinkerers, the so called 'eccentrics' and the mavericks. Because, very often, they are the ones who turn out to be the visionaries.

Third, there is also a compelling need to get the institutional framework right. To start an entrepreneurial activity, get the financing in place, to obtain the approvals and get the process kick-started, is a backbreaking and contorted exercise. And God forbid, in case of a business failure, the aftermath degenerates into a legal quagmire. Let us hope that the recent guidelines on venture capital funding will give a fillip and provide a meaningful avenue for our entrepreneurs to realise their vision more speedily and easily.

Fourth, to give our entrepreneurs a head-start, we need to innovate. For instance, take a look at how effective micro-credit has been in bank lending. If it works there, I see no reason why we can't design suitable micro-equity arrangements for entrepreneurs. Why can't we have microstock exchanges to address the needs of entrepreneurs? The Internet certainly makes this possible. Given our genius in financial innovation – for example the badla system and hundi – this is certainly within our grasp. Such arrangements would considerably lower the threshold at which businesses could reduce debt and replace it with equity capital, thereby helping spawn many more entrepreneurs.

Fifth, entrepreneurship is a quality that large business enterprises require as much as small start-ups and much more today than ever before. The challenge for large corporates is to turbocharge the entrepreneurial spirit in the organisation. One way is to structure large organisations in small entrepreneurial islands within. Going forward, such a structure would be more conducive to pursue experiments, to innovate, to develop cutting edge products, to dream new and better ways of running the business and creating value in an unfettered manner. In essence, to create thought leaders – people who are perpetually willing to step out-of-the-box, think laterally and go that extra mile to make a huge positive impact on the organisation. The idea is to have 'employee entrepreneurs' and partners in business, rather than just employees.

Finally, above all if, as a nation, we really want to make the 'India story' work, we cannot afford to confine entrepreneurship to the boundaries of business – it is much broader in its scope. We need entrepreneurs in all walks of life – in government, in the public sector, in educational institutions, in non-governmental organisation, in our artistic endeavours too.

Even a country as successful as Singapore has firmed up a master plan to recast Singapore from a nation of cautious followers into a nation of technophilic, creative entrepreneurs. Many proactive initiatives have been taken by the government. Among these are – rewriting some of the more restrictive regulations, building a world class science park for 'technopreneurs' and a total overhaul of the educational system. Their avowed objective is to develop well-rounded individuals who would be the entrepreneurs of the future.

It is my firm belief that we must look upon entrepreneurs as role models in our society, because it is they who contribute in a great measure to the process of wealth-creation and nation-building.

For to my mind, entrepreneurs are, to borrow the lines of Longfellow

"Brave men who work while others sleep,
who dare while others fly,
they build a nation's pillars deep,
and lift them to the sky."

95. In the author's perception a society that overemphasises 'degrees' and 'track records'
1] cannot produce an entrepreneurial culture that throws up visionaries.
2] cannot promote a culture of excellence.
3] will be enable to respond to macroeconomic challenges.
4] will eventually face implosion.

96. The author feels that promotion of genuine entrepreneurial spirit in our country is possible if
1] budding entrepreneurs are given on-the-job training.
2] receiving approval and getting finance in place are made hassle-free.
3] restrictions are removed on receiving venture capital.
4] a failed business venture is not allowed to get caught in a legal imbroglio.

97. In stating that the objective of our education should be to create people who can think laterally, what the author implies is that our system should produce people
1] Who can think for themselves and come up with new ideas.
2] Who are capable of thinking brilliantly and logically to offer solutions to problems.
3] Trained to think in ways which seek to solve problems by finding new perspectives rather than following conventional or logical lines of thought.
4] Used to a way of thinking in which they use their imagination to make connection between things that are not normally thought of together.

98. For innovation in business financing that helps fledgling entrepreneurs, the author recommends
1] the functionally effective badla system.
2] the age-old hundi system.
3] micro-equity arrangements with micro-stock exchanges.
4] micro-credit in bank lending.

99. Who among the following fits into the definition of a thought leader, as given by the author?
1] A sales manager who achieves figures beyond targeted sales in a given period.
2] A strategic marketing in charge who succeeds in positioning one of his brands to make it a market leader in a record time.
3] A Central Excise Assistant in the despatch section of a large corporate who suggests a simple product design change that results in increasing its market acceptance several fold.
4] A research and Development Officer in a large engineering company whose suggestions for re-engineering a section of the shop floor leads to eliminating losses.

100. The author cites the example of Singapore as a nation that rediscovered itself probably in order to exhort that
1] we too can make India another mega-Singapore if we promote entrepreneurial spirit in all walks of life.
2] India can wake up from its slumber if our government removes restrictive regulations and encourages entrepreneurs.
3] Indians must learn to be innovative in all walks of life.
4] We should look upon our entrepreneurs as role models in wealth-creation and nation-building.

SECTION III
QUESTIONS: 50

Directions for 101 to 106:
The following table are the details of 5 companies who have taken corporate subscription of mobile phones for their employees. Any employee may not have more than 1 connection. The details are on monthly basis.

Company	Mobile phone service provider	No. of employees covered	Fixed rentals (against free calls) per employee (in Rs.)	Free calls per employee	Per call charge (in Rs.)	Per SMS charge (in Rs.)
A	Shergil	400	500	500	2.00	1.00
B	Hootch	700	0	250	2.50	0.75
C	Mice	250	300	250	3.00	0
D	Baba	400	400	500	2.50	0.50
E	Alliance	625	500	500	2.00	1.50

NOTE: Per call charges become effective only after free calls are exhausted. i.e. (call charges = Rentals + charges after free calls)

101. Which company has made highest payment towards total calls alone if, on an average, each employee has made 700 calls ?
1] A 2] B 3] D 4] E

102. If each employee sends a total of 1000 SMS per month, then what is the total annual SMS bill of company A and company B put together. (in Rs. Lakhs)
1] 111 2] 1125 3] 2612 4] 3725

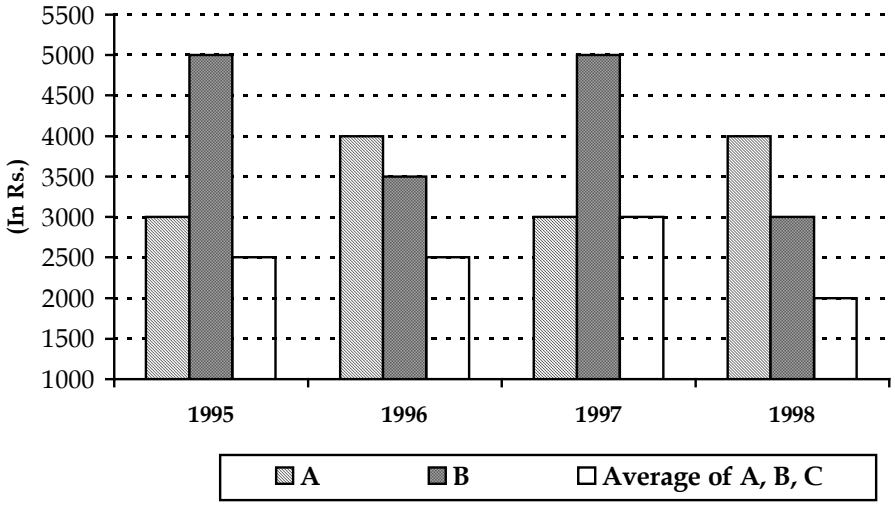
103. If another company F estimates that its 1000 employees will use 600 calls and send 200 SMS per month, then which mobile phone service provider should it opt for, such that its payout is least?
1] Shergil 2] Hootch 3] Baba 4] Alliance

104. What is the total bill for mobile phones of E if its employees send 200 SMS's each and make 500 phone calls each in a particular month?
1] Rs. 312500 2] Rs. 500000 3] Rs. 812500 4] None of these

105. If employees of both C and D send 100 SMS and make 600 calls each, then approximately by what percent does the revenue of Mice exceed that of Baba from these 2 clients respectively?
1] 12.5% 2] 20% 3] 25% 4] 17.5%

106. If company E employees decide to shift from Alliance to Shergil, and each employee makes 1000 calls and sends 200 SMS, what is the estimated monthly savings for the company on the mobile phone bill of all its employees?
1] Rs. 63750 2] Rs. 61500 3] Rs. 62500 4] None of these

Directions for 107 to 112:
The following graph gives prices (in Rs.) of 500 Kgs of A, 1000 Kgs of B and the average cost of 500 kgs each of A, B and C. Product D is made from A, B and C when they are mixed in the ratio 1:2:3.



107. In which year was the price of C the highest?
1] 1995 2] 1996 3] 1997 4] 1998

108. What was the ratio of price of C in 1995 to that in 1996?
1] 13:14 2] 8:7 3] 27:29 4] 4:3

109. What was the percentage increase in price of C from 1996 to that in 1997?
1] 100% 2] 66.66% 3] 124% 4] None of these

110. If I decide to buy 10 kgs each of A, B and C, then in which year do I pay the least amount of money?
1] 1995 2] 1996 3] 1997 4] 1998

111. What was the cost of D in 1996 if 6000 kgs of D was purchased?
1] Rs. 17250 2] Rs. 36450 3] Rs. 25500 4] Rs. 20750

112. Price of 100 kgs of D was least in…
1] 1995 2] 1996 3] 1997 4] 1998

Directions for 113 to 118:
Table A gives the cost (in '000 Rs.) of transferring one unit of commodity A from the producer to the wholesalers and table B gives cost of transferring 1 unit of commodity A from wholesaler to retailers from cities A to J. For e.g. from wholesaler in city A to retailer in city J, 1 unit can be transferred in Rs. 8000.

TABLE A:

	To Wholesalers' City										
From Producers' City		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**
	A	5	6	11	8	2	5	9	16	14	20
	B	11	3	8	6	4	9	13	12	16	16
	C	8	4	0	2	9	12	6	12	14	16
	D	18	14	19	7	13	11	9	6	8	12
	E	12	16	6	8	3	4	5	9	6	8
	F	13	17	8	6	5	0	8	9	7	5
	G	16	8	7	5	6	4	8	2	9	11
	H	13	12	10	11	10	8	5	2	7	6
	I	9	8	14	7	11	8	10	11	1	9
	J	17	11	8	16	12	14	12	13	9	0

Table B:

	From Wholesalers' City										
To Retailers' City		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**
	A	3	6	9	11	4	8	1	12	11	6
	B	9	0	8	14	6	6	8	4	9	11
	C	9	11	8	8	15	8	16	14	12	16
	D	7	6	11	2	8	14	21	16	11	9
	E	13	8	14	12	0	8	6	9	11	6
	F	18	12	11	9	4	4	6	4	8	10
	G	16	7	11	8	4	10	5	9	8	7
	H	6	10	18	11	25	16	9	2	11	7
	I	11	8	7	11	14	8	9	2	0	8
	J	8	14	14	12	13	12	7	5	10	1

113. What is the least cost of moving a unit from a producer to a retailer?
1] 0 2] Rs. 3000 3] Rs. 4000 4] Rs. 1000

114. What is the least cost of sending one unit from any producer to a retailer in E?
1] Rs. 6000 2] Rs. 3000 3] Rs. 4000 4] None of these

115. How many possible ways are there for sending one unit of commodity A from any producer to any retailer?
1] 100 2] 110 3] 1000 4] None of these

116. If due to a shortage in city C, retailers here have to buy commodity A from 3 wholesalers in different cities (excluding itself) , who in turn purchase from producers, then what is the least total cost at which one unit each from the 3 cities can reach city C?
1] Rs. 53000 2] Rs. 57000 3] Rs. 51000 4] Rs. 31000

117. What is the least cost of sending 1 unit of commodity A from a producer in city H to a retailer in any other city ?
1] Rs. 4000 2] Rs. 11000 3] Rs. 3000 4] Rs. 16000

118. The highest cost of sending 1 unit of commodity A from any producer to any retailer is…
1] Rs. 35000 2] Rs. 38000 3] Rs. 36000 4] Rs. 34000

Directions for 119 to 124:
The following table gives the details of time taken by any student to solve questions of different types on a test and the marks for each question. Wrong answers carry a uniform negative 0.25 score per question. Unanswered questions are not scored.

Question Type	Time per question (in seconds)	Marks	Total questions in the test
DI	60	1	30
PS	90	2	40
VA	30	0.5	50
RC	45	0.75	40
Logic	90	1.5	40

- Gross score is the score obtained by multiplying number of correct questions and marks for those questions.
- Net score is gross score less negative score, where negative score is a product of number of incorrect questions and 0.25

119. If I have 10 minutes to answer the test, what would be the maximum that I can score?
1] 13 2] 18 3] 10 4] 14.5

120. What is the maximum time I require to complete the test?
1] 3 hrs 45 min 2] 3 hrs 55 min 3] 3 hrs 50 min 4] None of these

121. What could be the maximum score that I can achieve?
1] 255 2] 225 3] 240 4] None of these

122. What is the least net score that one can achieve, if atleast 50% of the questions answered are correct?
1] 80 2] 40 3] 65 4] 112.5

123. If I take a test for 60 minutes, then what is the maximum that I can score?
1] 80 2] 60 3] 70 4] None of these

124. If I answer 50% of the questions in each section and get overall 50% of the answers correct, then what is the difference between my gross score and net score?
1] 35 2] 25 3] 22 4] Can't say

Directions for 125 to 130:
The following table gives the sales of various sections of three departmental stores which began operations in 1998. All values are in Rs. crores.

	2002	2001	2000	1999	1998
Shopper's Top:					
Men	12.5	11.5	9.8	12.5	13.5
Women	18.7	16.2	12.2	8.8	14.5
Others	25.2	21.7	25.6	16.2	21.2
Jivestyle:					
Men	15.4	18.5	17.2	18.5	21.5
Women	12.7	11.5	10.8	9.5	8.2
Others	21.5	22.7	21.5	18.5	16.5
Eastside:					
Men	9.5	11.2	8.6	5.4	4.3
Women	11.8	10.8	9.2	7.5	6.5
Others	7.5	6.5	6.8	7.2	6.5
Total	**134.8**	**130.6**	**121.7**	**104.1**	**112.7**

125. For which year did sales increase the most, relative to the previous year for the Men's section of Jivestyle?
1] 2001 2] 2000 3] 1999 4] 1998

126. The total sales of Men's sections of the three departmental stores lay between 30 and 40 percent of total turnover of the three stores, in the year/s…
1] 2002, 2001, 1999 2] 1999 and 1998 only
3] 2001, 1999, 1998 4] 2001,2000, 1999

127. The highest percentage growth in sales of the three stores together, relative to previous year was achieved in…
1] 1998 2] 2001 3] 1999 4] 2000

128. Which of the following statements is correct?
1] During 1999 to 2002, sales of Women's section of Shopper's Top declined steadily whereas that of 'others' sections steadily increased.
2] The Women's section sales at Eastside have always been higher than average sales of the three sections of Eastside.
3] 'Others' section has contributed to more than 50% of sales for Shopper's Top for all the years.
4] None of the above statements are true.

Additional instructions for questions 129 and 130:
For any activity A, year X dominates Year Y if in the year X, sales of A are higher than sales of A for year Y.
For two activities A and B, A is said to dominate B in year X, if sales of A in year X is higher than sales of B in year X.

129. For Shopper's Top, total sales of 2001 dominates its total sales of which of the following years:
(i) 2002 (ii) 2000 (iii) 1999 (iv) 1998
1] (i) and (iii) 2] (ii) and (iii) 3] (ii) and (iv) 4](ii), (iii) & (iv)

130. For which years does the sales of Jivestyle dominate sales of Eastside.
1] 2002, 2001, 2000 2] 2000, 1999, 1998
3] 1998, 1999, 2001, 2002 4] 2002, 2001, 2000, 1999, 1998

Directions for questions 131 to 140: Each item has a question followed by two statements.
Choose **1**, If the question can be answered with the help of statement A alone
Choose **2**, If the question can be answered with the help of statement B alone.
Choose **3**, If the question cannot be answered even with the help of both the statements.
Choose **4**, If the question can be answered only with the help of both the statements together.

131. Is Aquafina purer than Bisleri?
A. If Kinley is purer than Aquafina than Bisleri is purer than Aquafina.
B. Bisleri is purer than Kinley.
1] 3 2] 1 3] 2 4] 4

132. How many sons does Dashrath have?
A. Dashrath has three wives, each of them have atleast one son.
B. None of Dashrath's wives has more than 3 sons and each of his wife have a different number of children.
1] 1 2] 2 3] 3 4] 4

133. Will Ashok secure admission into IIMs?
A. Success in CAT is a percentile score of 98 and above.
B. With 125,000 students taking CAT, Ashok obtained a rank of 2400.
1] 4 2] 3 3] 2 4] 1

134. What is the sum of all the digits of the four-digit even number?
A. The sum of the first and the last digit is 6 more than the sum of the middle two digits.
B. The sum of the first three digits is 2 less than the last digit. The four digit number comprises 4 distinct digits and no zeros.
1] 1 2] 2 3] 3 4] 4

135. Does class A have more students than class B?
A. If each student of class C partners with another student of class B, then 5 students of class C do not have any partners.
B. When every student of class A partners with two students of class C, all students of classes A and C have partners.
1] 2 2] 4 3] 1 4] 3

136. How many miles did the INS Viraat travel from A to B?
A. INS Viraat traveled at a speed of 3 miles per hour for 8 hours uniformly to cover the distance from A to B.
B. INS Viraat reached midway between A and B in 6 hours.
1] 1 2] 3 3] 2 4] 4

137. How many square tiles are required to floor a rectangular room, given that if a piece of tile is broken/cut to be used, the rest is discarded?
A. The floor area of the room is 400 sq. meters
B. The tiles area is 1 sq. meter
1] 1 2] 2 3] 3 4] 4

138. How many students will take GMAT in 2005?
A. Every month, on an average 28000 students took the GMAT in 2003.
B. Number of students taking GMAT increase every year by more than 5%
1] 1 2] 3 3] 4 4] 2

139. Is m > n?
A. m + n + x > y + z + x
B. m > y + z
1] 1 2] 2 3] 3 4] 4

140. Is ABCD a square?
A. $\angle A = \angle B = \angle C = \angle D$
B. AC = BD
1] 1 2] 2 3] 4 4] 3

Directions for 141 to 150: Answer each of these questions independently:

141. Three students go on a picnic. A does not carry water and snacks. B does not carry the camera or the umbrella. C does not carry the football and the cap. If each of the six items was definitely carried by atleast one of the members, and each member carried 2 articles only, than who carried the snacks ?
1] A 2] B 3] C 4] Indeterminate

142. In a football match, a total of 30 goals were scored. Team A has 4 forwards and team B has 3 forwards. In the match, all goals were scored by forwards, and each forward scored atleast one goal. If no player from the two teams scored the same number of goals, who won the match?
1] A 2] B 3] Draw 4] Indeterminate

143. 4 books were distributed among 3 friends, such that each received atleast 1 book. X received Ayn Rand's Fountainhead. Y did not receive any Ayn Rand book. Z did not receive Stephen Covey's 7 habits or Shiv Khera's Born to win. If the fourth book was Ayn Rand's Night of January 16th, who received the 7 habits?
1] X 2] Y 3] Z 4] Indeterminate

144. There are 100 statements written on the board. Statement 1 is "only 1 statement among the 100 is false". Statement 2 is " only 2 statements among the 100 are false". Hence each nth statement reads "Only n statements among the 100 are false". How many statements on the board are true if the last statement is "Only 100 statements among the 100 are false"?
1] 0 2] 1 3] 50 4] Indeterminate

145. From a list of four movies, four friends discuss their favourite movies. Atleast 2 friends vote for Matrix, not more than 3 vote for Mummy, 1 votes for Alien and 2 vote for Jerry McGuire. If two friends have exactly voted for 2 different movies, and 2 friends for exactly 3 different movies, then how many votes did Matrix get?
1] 2 2] 3 3] 4 4] Can't say

146. From a bag containing 100 balls, one ball weighs 9 grams and all the other weigh 10 grams each. Using a simple balance where balls can be kept on either pan, what is the minimum weighs required to identify the defective ball?
1] 3 2] 4 3] 5 4] 7

147. There are 10 ants A_1 to A_{10} who live in 10 houses H_1 to H_{10} respectively. A_1 and A_{10} exchange homes, then A_2 and A_9 exchange homes. A_3 and A_8, and then A_4 and A_7 also exchange homes. A_5 then swaps his home with each of the other ants, starting first with the resident of H_1, then swapping his new home with resident of H_2, then his new home with resident of H_3 and so on, until he finally rests in H_{10}. Who is now in H_9?
1] A_1 2] A_9 3] A_{10} 4] None of these

148. There are 4 switches S_1, S_2, S_3, and S_4 in one room connected to four bulbs B_1, B_2, B_3 and B_4 in another room. Ram has forgotten which switch is for which bulb. He can at any time switch ON exactly 2 switches and walk to the other room to check which bulbs have are glowing. Every time he switches ON 2 switches, he scores 2 points. What is the minimum number of points he scores before he is correctly able to identify the switches and their corresponding bulbs?
1] 2 2] 4 3] 6 4] 8

149. Blue ties go only with yellow or brown jackets. Red ties go only with brown or blue jackets. White shoes go only with blue ties or brown jackets. Which of the following is a valid dressing combination?
1] White shoes, Brown jackets and Blue ties.
2] Brown jacket, Red tie and White shoes.
3] White shoes, Blue jacket and Red ties.
4] All of the above.

150. Let A = x and B = y and C = z
Step 1: Swap contents of A and B
Step 2: Swap contents of B and C
Step 3: Swap contents of A and C
Perform the above 3 steps 3 times. Now what is the content of A, B and C respectively?
1] x, y, z 2] x, z, y 3] z, x, y 4] y, z, x

SAMPLE OMR SHEET

NAME _____ DATE _____

DIRECTIONS :

1 Mark your answer by darkening the appropriate circle with an HB Pencil.
2 Erase clearly any answer you want to change.
3 Make no stray mark anywhere on the score sheet.

	1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4
1	O O O O	26	O O O O	51	O O O O	76	O O O O	101	O O O O	126	O O O O
2	O O O O	27	O O O O	52	O O O O	77	O O O O	102	O O O O	127	O O O O
3	O O O O	28	O O O O	53	O O O O	78	O O O O	103	O O O O	128	O O O O
4	O O O O	29	O O O O	54	O O O O	79	O O O O	104	O O O O	129	O O O O
5	O O O O	30	O O O O	55	O O O O	80	O O O O	105	O O O O	130	O O O O
6	O O O O	31	O O O O	56	O O O O	81	O O O O	106	O O O O	131	O O O O
7	O O O O	32	O O O O	57	O O O O	82	O O O O	107	O O O O	132	O O O O
8	O O O O	33	O O O O	58	O O O O	83	O O O O	108	O O O O	133	O O O O
9	O O O O	34	O O O O	59	O O O O	84	O O O O	109	O O O O	134	O O O O
10	O O O O	35	O O O O	60	O O O O	85	O O O O	110	O O O O	135	O O O O
11	O O O O	36	O O O O	61	O O O O	86	O O O O	111	O O O O	136	O O O O
12	O O O O	37	O O O O	62	O O O O	87	O O O O	112	O O O O	137	O O O O
13	O O O O	38	O O O O	63	O O O O	88	O O O O	113	O O O O	138	O O O O
14	O O O O	39	O O O O	64	O O O O	89	O O O O	114	O O O O	139	O O O O
15	O O O O	40	O O O O	65	O O O O	90	O O O O	115	O O O O	140	O O O O
16	O O O O	41	O O O O	66	O O O O	91	O O O O	116	O O O O	141	O O O O
17	O O O O	42	O O O O	67	O O O O	92	O O O O	117	O O O O	142	O O O O
18	O O O O	43	O O O O	68	O O O O	93	O O O O	118	O O O O	143	O O O O
19	O O O O	44	O O O O	69	O O O O	94	O O O O	119	O O O O	144	O O O O
20	O O O O	45	O O O O	70	O O O O	95	O O O O	120	O O O O	145	O O O O
21	O O O O	46	O O O O	71	O O O O	96	O O O O	121	O O O O	146	O O O O
22	O O O O	47	O O O O	72	O O O O	97	O O O O	122	O O O O	147	O O O O
23	O O O O	48	O O O O	73	O O O O	98	O O O O	123	O O O O	148	O O O O
24	O O O O	49	O O O O	74	O O O O	99	O O O O	124	O O O O	149	O O O O
25	O O O O	50	O O O O	75	O O O O	100	O O O O	125	O O O O	150	O O O O