

# COMMON ADMISSION TEST

## SECTION-1

**Directions Q 1 to 6:** Select the pair that best expresses a relationship similar to the one expressed in the question pair.

1. BARGE: VESSEL
  - a. Cargo: Hold
  - b. Link: Chain
  - c. Shovel: Implement
  - d. Squadron: Plane
2. DOGGEREL: POET
  - a. Soliloquy: Playwright
  - b. Symphony: Composer
  - c. Pulp-fiction: Novelist
  - d. Caption: Cartoonist
3. PREMISE: CONCLUSION
  - a. Assumption: inference
  - b. Hypothesis : theory
  - c. Knowledge: ideas
  - d. Brand : marketing
4. PEEL:PEAL
  - a. Coat : rind
  - b. Laugh : bell
  - c. Rain: reign
  - d. Brain: cranium
5. LOVE: AFFECTION
  - a. Happiness : joy
  - b. Amity : harmony
  - c. Enemy : hatred
  - d. Sorrow : misery
6. PARADIGM : PATTERN
  - a. Skeleton: Flesh
  - b. Container: Content
  - c. Maxim: Theory
  - d. Structure: Framework

**Directions Q 7to 11:** Choose that set of statements in which the third statement logically follows from the first two.

7.
  - A. All mammals are viviparous.
  - B. Bats are viviparous.
  - C. No bat is a bird.
  - D. No bird is a mammal.
  - E. All bats are mammals.
  - a. ADC
  - b. ABE
  - c. FBA
  - d. AFC
8.
  - A. No mother is a nurse.
  - B. Some nurses like to work.

- C. No woman is a prude.
- D. Some prude is nurses.
- E. Some nurses are women.
- F. All women like to work.
- a. ABE
- b. CED
- c. FEB
- d. BEF

9.

- A. Oranges are fruit.
- B. Some fruits are sour.
- C. Oranges are sour.
- D. Some oranges are sour.
- E. Some oranges are not sour.
- F. Some apples are sour.
- a. ADB
- b. ACE
- c. BFD
- d. BAC

10.

- A. Zens are Marutis.
- B. Zeus are fragile.
- C. Marutis are fragile.
- D. All stable are weak.
- E. Marutis can beat Opels
- F. Opels are stable
- a. ACB
- b. EFD
- c. CEA
- d. ABC

11.

- A. Aardvarks need sleep.
- B. All animals need sleep.
- C. Dogs are animals
- D. Some dogs need sleep.
- E. Aardvarks are animals.
- F. Some Aardvarks are dogs.
- a. BCD
- b. CEF
- c. BEA
- d. BAE

### Directions Q 12 to 16:

Select the pair of sentences that relate logically with the given statement.

12. Either Sam is ill; or he is drunk.
  - A. Sam is ill
  - B. Sam is not ill
  - C. Sam is drunk
  - D. Sam is not drunk
  - a. AB
  - b. DA

- c. AC  
d. CD
13. Whenever Ram hears of a tragedy, he loses sleep.  
A. Ram heard of a tragedy.  
B. Ram did not hear of a tragedy  
C. Ram lost sleep  
D. Ram did not lose sleep  
a. CA  
b. BD  
c. DB  
d. AD
14. Either the train is late; or it has derailed.  
A. The train is late.  
B. The train is not late.  
C. The train is derailed.  
D. The train is not derailed.  
a. AB  
b. DB  
c. CA  
d. BC
15. When I read a horror story I have a nightmare.  
A. I read a story.  
B. I did not hear a horror story.  
C. I did not have a nightmare  
D. I had a nightmare.  
a. CB  
b. AD  
c. BC  
d. AC
16. When I eat berries I get rashes.  
A. I ate berries.  
B. I did not get rashes.  
C. I did not eat berries.  
D. I got rashes.  
a. DA  
b. BC  
c. CB  
d. AD

**Directions Q 17 to 21:** Choose the choice which would best replace the underlined part of the given sentence.

17. Rahul Bajaj did a great job by taking his company to a dominant position but it is time he let go of the reins.  
a. But it is time he let go of the reins  
b. However it is time that he stepped down.  
c. It is perhaps an opportune moment to quit.  
d. But it is just as well that he calls it a day.
18. This government may promise autonomy to the navaratnas but there is no telling what the subsequent one will do.  
a. There is no telling what the future will do.  
b. There is no telling what the subsequent one will do.  
c. It is not clear whether its successors will do the same.

- d. Nobody can be sure that subsequent governments will adhere to that policy.
19. With the increase in the standard of education, expensive private schools have started blooming up in every corner of the country.  
a. Started blooming in every corner of the country.  
b. Have started mushrooming all over the country.  
c. Have mushroomed all over the country.  
d. Have blossomed all over the country.
20. It is important that whatever else happens, these two factors should not be messed around with.  
a. It is important that  
b. It is a fact that  
c. It should be urgently understood that  
d. It should be understood that
21. It must be noted that under no circumstance should the company go in for diversification.  
a. It must be noticed that  
b. It must be noted that  
c. It must be pointed out that  
d. It should be noticed that.

**Directions Q. 22 to 29: Fill in the blanks.**

22. An act of justice closes the book on a misdeed; an act of vengeance\_\_\_\_\_  
a. Writes one of its own.  
b. Opens new books.  
c. Reopens the first chapter.  
d. Writes an epilogue.
23. This is about \_\_\_\_\_ a sociological analysis can penetrate.  
a. As far as  
b. The outer limit that  
c. Just how far into the subject  
d. Just the relative distance that
24. I am always the first to admit that I have not accomplished everything that I \_\_\_\_\_ achieve five years ago.  
a. Set out to  
b. Went to  
c. Thought to  
d. Thought of
25. This is not the first time that the management has done some\_\_\_\_\_  
a. Tough talk  
b. Tough talking  
c. Firm talk  
d. Firm talking
26. \_\_\_\_\_ that in this apparent mess, two things not be interfered with.  
a. It is important  
b. It is of cardinal importance.  
c. It should be urgently understood  
d. It cannot be emphasized

27. The highest reward for a man's toil is not what he gets for it but what \_\_\_\_\_.
- He make out of it.
  - He gets for others.
  - He has overcome through it.
  - He becomes by it.
28. Wines that yielded a good commercial profit \_\_\_\_\_ in the same limited areas of France as now.
- Seem to have been produced
  - Appear to have remarkable semblance
  - Bear a significant similarity in terms of production to those grown
  - Appear to have been similarly produced
29. Education is central because electronic networks and software-driven technologies are beginning to \_\_\_\_\_ the economic barriers between nations.
- Break down
  - Break
  - Crumble
  - Dismantle

**Directions Q 30 to 34:**

Arrange sentences A, B, C and D between sentences 1 and 6, so as to form a logical sequence of six sentences.

30. Arrange sentences A, B, C and D between sentences 1 and 6, so as to form a logical sequence of six sentences.
- A nation like an individual has many personalities and many approaches to life.
- If there is a strong organic bond between different personalities, it is well.
  - Otherwise this could lead to disintegration and trouble.
  - Normally, some kind of equilibrium is eventually established.
  - If normal development is arrested, then conflict arises between different personalities.
- In the mind and spirit of India, there has been this fundamental conflict due to a long period of arrested growth.
- ABCD
  - BDCA
  - CABD
  - DBCA
31. Arrange sentences A, B, C and D between sentences 1 and 6, so as to form a logical sequence of six sentences.
- Until the MBA arrived on the scene the IIT graduate was king.
- A degree from one of the five IITs was a passport to a well-paying job, great prospects abroad and, for some, a decent dowry to boot.

- From the day he or she cracked the joint entrance exam, the IIT student commanded the awe of neighbours and close relatives.
- IIT students had, meanwhile, also developed their own special culture, complete with lingo and attitude, which they passed down.
- True, the success stories of IIT graduates are legion and they now constitute the cream of the Indian diaspora.
- But not many alumni would agree that the IIT undergraduate mindset merits a serious psychological study, let alone an interactive one.
- BACD
  - ABCD
  - DCBA
  - ABCD

32. 1. Some of the maharajas, like the one at Kapurthala, had exquisite taste.
- In 1902, the Maharaja of Kapurthala gave his civil engineer photographs of the Versailles palace and asked him to replicate it, right down to the gargoyles.
  - Yeshwantrao Holkar of Indore brought in Bauhaus aesthetics and even works of modern artists like Brancusi and Duchamp.
  - Kitsch is the most polite way to describe them.
  - But many of them, as the available-light photographs show, had execrable taste.
- Like Ali Baba's caves, some of the palaces were like warehouses with the downright ugly next to the sublimely aesthetic.
- BACD
  - BDCA
  - ABCD
  - ABDC
33. 1. So now let's sum it up.
- We can call this the material of knowledge.
  - According to Kant, there are two elements that contribute to man's knowledge of the world.
  - The other is the internal conditions in man himself.
  - One is the external conditions that we cannot know of before we have perceived them through the series.
- We can call this form of knowledge.
- BDAC
  - BADC
  - CADB
  - CBDA
34. 1. I may have a strong desire for a fresh ripe peach, but no peaches may be available.

- A. I am about to take a bite when news arrives of an accident injuring someone dear to me.  
 B. The hay fever passes.  
 C. On the other hand, I buy some peaches but a sudden attack of hay fever prevents me from enjoying their fragrance or taste.  
 D. My interest in the peach vanishes.  
 6. I no longer have any appetite.  
 a. DCBA  
 b. CBAD  
 c. ABCD  
 d. ACBD

**Directions Q35 to 44:**

Arrange sentences A, B, C and D in a proper sequence so as to make a coherent paragraph.

35. A. Because negotiations had been delayed until the last moment, he was at a tremendous disadvantage.  
 B. Only then did the truth dawn on him.  
 C. He broke off talks and returned home  
 D. My friend was under intense pressure to make concessions.  
 a. DBAC  
 b. ACBD  
 c. ABCD  
 d. DBCA
36. A. "Son, why are you reading that sissy magazine?" .he asked.  
 B. "There's an article that tells women where to meet men, "I responded, pointing to the magazine's cover.  
 C. "I need to know where I'm supposed to be."  
 D. When I was a teenager, my father caught me reading one of my older sister's magazines.  
 a. DCAB  
 b. ADCB  
 c. DABC  
 d. DACB
37. A. "Actually," Ronnie replied, "I asked my wife,"  
 B. One day a man named Ronnie answered a difficult one correctly to put the men in front.  
 C. Impressed, the host kept Ronnie on the line and asked how he knew the answer to such a tough question.  
 D. Occasionally a local radio station airs "Battle of the Sexes," in which listeners phone in to answer trivial questions.  
 a. BCAD  
 b. ACDB  
 c. CABD  
 d. DBCA
38. A. After several routine elections there comes a 'critical' election which redefines the basic pattern of political loyalties, redraws political geography and opens up the frozen political space.  
 B. In psychological jargon they call it realignment.  
 C. Rather, since 1989, there have been a series of semi- critical elections.  
 D. On a strict definition, none of the recent Indian elections qualifies as a critical election.  
 a. ABCD  
 b. ABDC  
 c. DBAC  
 d. DCBA
39. A. Trivial pursuits, marketed by the Congress, is a game imported from Italy.  
 B. The idea is to create an imaginary saviour in times of crisis so that the party doesn't fall flat – on its collective face.  
 C. Closest contenders are Mani Shankar Aiyar, who still hears His Master's Voice, and V. George, who is frustrated by the fact that his political future remains Sonia and yet so far.  
 D. The current champion is Arjun Singh for whom all roads lead to Rome, or in this case, 10 Janpath.  
 a. ABDC  
 b. ABCD  
 c. DCBA  
 d. CDBA
40. A. Good advertising can make people buy your products even if it sucks.  
 B. A dollar spent on brainwashing is more cost-effective than a dollar spent on product improvement.  
 C. That's important because it takes pressure off you to make good products.  
 D. Obviously, there's a minimum quality that every product has to achieve: it should be able to withstand the shipping process without becoming unrecognizable.  
 a. BACD  
 b. ACBD  
 c. ADCB  
 d. BCDA
41. A. Almost a century ago, when the father of the modern automobile industry, Henry Ford, sold the first Model A car, he decided that only the best would do for his customers.  
 B. Today, it is committed to delivering the finest quality with over six million vehicles a year in over 200 countries across the world.

- C. And for over ninety years, this philosophy has endured in the Ford Motor Company.
- D. A vehicle is ready for the customer only if it passes the Ford 'Zero Defect Programme'.
- a. ABCD  
b. ACDB  
c. ACBD  
d. CDAB
42. A. But, clearly, the government still has the final say.  
B. In the past few years, the Reserve Bank of India might have wrested considerable powers from the government when it comes to monetary policy.  
C. The RBI's announcements on certain issues become effective only after the government notifies them.  
D. Isn't it. Time the government vested the RBI with powers to sanction such changes, leaving their ratification for later?
- a. ACDB  
b. ACBD  
c. BACD  
d. DACB
43. A. I sat there frowning at the chequered tablecloth, chewing the bitter cud of insight.  
B. That wintry afternoon in Manhattan, waiting in the little French restaurant, I was feeling frustrated and depressed.  
C. Even the prospect of seeing a dear friend failed to cheer me as it usually did.  
D. Because of certain miscalculations on my part, a project of considerable importance in my life had fallen through.
- a. ADBC  
b. BCDA  
c. BDCA  
d. ABCD
44. A. Perhaps the best known is the Bay Area Writing Project, founded by James Gray in 1974.  
B. The decline in writing skills can be stopped.  
C. Today's back-to-basics movement has already forced some schools to place renewed emphasis on the three Rs.  
D. Although the inability of some teachers to teach writing successfully remains a big stumbling block, a number of programmes have been developed to attack this problem.
- a. BCDA  
b. ADCB

- c. ACBD  
d. CABD

**Directions Q45 to 50: Select the odd man out.**

45.  
a. Adept  
b. Adapt  
c. Skilful  
d. Proficient  
e. The other words mean skilful.
46.  
a. Avid  
b. Keen  
c. Enthusiastic  
d. Kin  
e. The other words mean enthusiastic.
47.  
a. Ring  
b. Round  
c. Bell  
d. Circle  
e. The others describe the circular shape.
48.  
a. Computer  
b. Internet  
c. Grid  
d. Network  
e. The others describe network.
49.  
a. Suffer  
b. Endure  
c. Ordeal  
d. Withstand  
e. The others mean to suffer or withstand.
50.  
a. Break  
b. Hiatus  
c. Chasm  
d. Bridge

**SECTION-II**

**Directions Q 51 to 100:** Read the passages given below carefully and answer the questions that follow.

**PASSAGE - 1**

Many surprises lie in store for an academic who strays into the real world. The first such surprise to come my way during a stint as a university administrator related to the photocopying machines within my jurisdiction. I discovered that paper for the machines plus contractual maintenance cost substantially more than photocopies in the private market. This took no account of the other costs of the copiers — ink, spare parts, the space occupied by the machine, the interests and depreciation on it, the wages of the machine operator, the loss of time when the machine broke down or the operator absented himself.

The university—and indeed the entire educational system – was in a financial crisis. Here was a situation calling for a quick and painless execution of all white elephants, or so I thought. I proposed that we stop using the photocopying machines and get our photocopies made by a private operator who had rented space from our institution. Further, we could reduce our costs well below the market price through an agreement with the private operator, which would let him run our surplus machines in exchange for a price concession.

I had expected my proposal to be eagerly embraced by an impoverished university. Instead, it created a furore. In a progressive institution like ours, how could I have the temerity to suggest handing over a university asset to the private sector? Perhaps I was in the pay of the private operator. Friends and well wishers emphasized the necessity of immediately distancing myself from any plan that may conceivably benefit a private entrepreneur – even if it should concurrently benefit the university. That, I gathered, was the essence of financial rectitude.

Abashed, I repented my indiscretion. The photocopying machines were of course no longer used, but neither were they transferred to the enemy in the private sector. We got our photocopying done privately at market prices, not the confessional rates I had proposed. The university lost money, but the family silver was saved from the private enemy. After a decently long period gathering dust and cobwebs, it could be sold as scrap, but that would not be during my tenure.

The story of the photocopying machines is repeated in many different guises throughout our public and semi-public institutions. The public sector is replete with unproductive assets, their sterile purity jealously protected from the seductive influences of private enterprise. There are the pathetic load factors in our power plants. There are fleets of public buses lying in idle disrepair in our state transport depots. There is the fertilizer plant, which has never produced even a gram of fertilizer because, after its executive had scoured the wide world in search of the cheapest possible parts, they found that the specifications of these parts did not match each other. There are the 80 gas guzzling staff cars boasted of by a north Indian university which has little else to boast about.

Perhaps the most spectacular instances of unproductive government assets relate to land. Five years ago, the then minister for surface transport, Jadish Tytler, suggested a plan for developing the vast tracts of unused land in the Delhi Transport Corporation's bus depots. He argued, entirely credibly, that by leasing out this land for commercial purposes, the DTC could not only cover its chronic and massive deficit but achieve a substantial surplus. The proposal was never implemented; the infiltration of the private sector into DTC depots was heroically resisted by various

government department departments and the corporation continued its relentless plunge deeper into the red.

All other examples of public extravagance however pale into insignificance alongside the astronomical wastefulness perpetrated by the New Delhi municipal committee and the design of Edwin Lutyen's Delhi. Delhi unlike all other major cities of the world, has a hollow centre – the density of population at the heart of town is negligible. In design, it is no modern metropolis but a medieval imperial capital like the Baghdad of the Abbasid Caliphate. The very centre of the city is entirely occupied by the almost empty palaces of the mighty while hoi polloi throng the periphery and travel long distances daily to serve their masters.

Within the charmed circle of inner New Delhi, ministers and members of parliament, the top military brass and the bureaucratic and the judicial elite of the country luxuriate in sprawling bungalows nestling amidst lush greenery in almost sylvan surroundings. The total land area occupied by these bungalows is one of the best-kept official secrets. The ministry of urban development keeps no count of aggregates; but it appears that there are about 600 bungalows with areas varying from one to 10 acres. A not implausible estimate of the total area is about 10 million square yards.

A conservative estimate of the value of land in central New Delhi is Rs. 1,00,000 per square yard. Six hundred families of VIPs are occupying real estate worth about Rs. 1,000 billion; at an interest rate of 12%. This sum would yield an annual income of Rs. 120 billion. This amounts to more than one per cent of the gross domestic product.

If the government were to move these six hundred families to the outskirts of the town and lease this land out, say for multi-storied residential construction – subject, of course, to environmental restrictions that would protect the existing greenery – the primary deficit of India would be wiped out.

What is more, rents would drop all over the city and the housing problem of Delhi would be solved, if not fully, at least in substantial measure. Further, there would be a major inward shift of population reducing transport requirements, and making it more lucrative for public transport to ply through inner Delhi. The removal of the six hundred would, at one stroke, relieve the accommodation and transport problems of Delhi as well as the budget deficit of the country. But who would bell the cat? Would the government do it, considering that 600 are the government?

Public interest litigation has of late highlighted a relatively minor aspect of the VIP housing issue: the abuse of ministerial discretion in making out of turn allotments. This focuses attention on the question of a fair distribution between the members of the elite of the fruits of power. In the process, unfortunately, a question of infinitely larger import has been

conveniently consigned to oblivion. Doesn't the entire scheme of VIP housing in New Delhi imply organized plunder of the citizenry on a scale quite unprecedented and totally incompatible with the principles of a democratic society?

Strangely enough, this matter has entirely eluded the searchlight of public attention. Political parties, the media public interest litigants, grass root people's movements have all maintained a resounding reticence on the issue. When the excesses perpetrated in the name of VIP security provoked public protest, the Prime Minister desired that VIP security should be made "unobtrusive". VIP housing, however, is an entirely unobtrusive burden on the public, but a burden of quite mind boggling proportions. Perhaps it is the silent character of this infliction that has made it so easy to impose. Or perhaps centuries of colonial rule have made habitual slaves of us: a mere 50 years of democracy cannot erase our slavish habit of obsequiousness to the imperial state and its rulers.

51. The author's experience taught him that the essence of financial rectitude involved:
- Dissociating from any plan which benefits a private entrepreneur even if it concurrently benefits a public institution.
  - Supporting any plan which benefits a public institution while benefiting a private entrepreneur.
  - Dissociating from any plan which benefits a private entrepreneur at the cost of a public institution.
  - Supporting any plan which benefits a public institution at the cost of a private entrepreneur.
52. The practice of getting the photocopies done privately at market prices was acceptable because:
- It saved money for the university.
  - It lost money for the university.
  - It saved the family silver from the private enemy.
  - Though it lost money for the university, it saved the family silver from the private enemy.
53. "... their sterile purity jealously protected from the seductive advances of private enterprise" the author here is referring to:
- The family silver of the public institutions
  - The productive assets of the public institutions
  - The rigid financial practices of the public institutions
  - None of the above.
54. The Delhi Transport Corporation's relentless plunge deeper into the red continued, because according to the passage:
- Disposing off 80 gas guzzling staff cars was resisted.
  - Fleets of buses in idle disrepair were not allowed to be sold as scrap.
  - Leasing out unused land for commercial use was strongly resisted.
  - Selling off surplus land to private parties was strongly resisted.
55. An estimate of the total land area occupied by the sprawling bungalows in inner New Delhi is:
- 600 acres
  - 6000 acres
  - 10 million square yards
  - 3000 acres
56. The author's proposal to lease out the land occupied by bungalows for multi-store dyed residential construction would:
- Spoil the ecology of inner New Delhi
  - Wipe out the primary deficit of India
  - Create a surplus of Rs. 120 billion for the Municipal Committee.
  - Enhance the greenery of the inner city.
57. The author contends that shifting 600 elite families of the government from the inner city to the periphery would solve the problems(s) of:
- Accommodation and transportation
  - Transportation and the country's budget deficit
  - Accommodation and the country's budget deficit
  - Accommodation, transportation, and the country's budget deficit
58. When the author talks about an unobtrusive public burden of mind-boggling proportions, he is referring to the issue of:
- VIP housing
  - VIP security
  - Out of turn allotment of housing to VIPs.
  - Unproductive public assets.
59. According to the passage, when a public system suffers from financial crisis, the situation calls for:
- Tightening the belt all around
  - Handing over unproductive assets to private parties
  - Contracting out maintenance of assets to less efficient private parties
  - Painless and quick execution of all white elephants.
60. One proposal made by the author to reduce the cost of photocopying well below the market rate, was to:
- Stop using owned photocopying machines and get photocopies done by private operators in the market.
  - Stop using owned photocopying machines and get photocopies done by a private operator who had rented space from the institution

- c. Have an agreement with the private operator allowing him to use the owned surplus machines in exchange for a price concession.
- d. Put the photocopy operating employees on a piece rate basis

### PASSAGE - 2

When talk turns to how India has done for itself in 50 years of independence, the world has nothing but praise for our success in remaining a democracy. On other fronts, the applause is less loud. In absolute terms, India hasn't done too. Badly, of course. Life expectancy has increased. So has literacy. Industry, which was barely a fledgling, has grown tremendously. And as far as agriculture is concerned, India has been transformed from a country perpetually on the edge of starvation into a success story held up for others to emulate.

But these are competitive times when change is rapid, and to walk slowly when the rest of the world is running is almost as bad as standing still or walking backwards. Compared with large chunks of what was then the developing world – South Korea, Singapore, Malaysia, Thailand, Indonesia, China and what was till lately a separate Hong Kong – India has fared abysmally.

It began with a far better infrastructure than most of these countries had. It suffered hardly or not at all during the Second World War. It had advantages like an English speaking elite, quality scientific manpower (including a Nobel laureate and others who could be ranked among the world's best) and excellent business acumen. Yet, today, when countries are ranked according to their global competitiveness, it is tiny Singapore that figures at the top. Hong Kong is an export powerhouse. So is Taiwan. If a symbol were needed of how far we have fallen back, note that while Korean Cielos are sold in India, no one in South Korea is rushing to buy an Indian car.

The reasons list themselves. Topmost is economic isolationism. The government discouraged imports and encouraged self-sufficiency. Whatever the aim was, the result was the creation of a totally inefficient industry that failed to keep pace with global trends and, therefore, became absolutely uncompetitive. Only when the trade gates opened a little did this become apparent. The years since then have been spent in merely trying to catch up.

That the government actually sheltered its industrialists from foreign competition is a little strange. For, in all other respects, it operated under the conviction that businessmen were little more than crooks who were to be prevented from entering the most important areas of the economy, who were to be hamstrung in as many ways as possible, who were to be tolerated in the same way as an in excisable wart. The high, expropriatory rates of taxation, the licensing laws, the reservation of whole swathes of industry for

the public sector, and the granting of monopolies to the public sector firms were the principal manifestations of this attitude. The government forgot that before wealth could be distributed, it had to be created. The government forgot that it itself could not create, only squander wealth.

Some of the manifestations of the old attitude have changed. Tax rates have fallen. Licensing has been all but abolished. And the gates of global trade have been opened wide. But most of these changes were forced by circumstances, partly by the foreign exchange bankruptcy of 1991 and by the recognition that the government could no longer muster the funds to support the public sector, leave alone expand it. Whether the attitude of the government itself, or that of more than handful of ministers, has changed is open to question.

In many other ways, however, the government has not changed one whit. Business still has to negotiate a welter of negotiations. Transparency is still a long way off. And there is no exit policy. In defending the existing policy, politicians betray an inability to see beyond their noses. A no-exit policy for labour is equivalent to a no-entry policy for new business. If one industry is not allowed to retrench labour, other industries will think a hundred times before employing new labour.

In other ways too, the government hurts industries. Public sector monopolies like the department of telecommunications and Videsh Sanchar Nigam make it possible for Indian businesses to operate only at a cost several times that of their counterparts abroad. The infrastructure is in a shambles partly because it is unable to formulate a sufficiently remunerative policy for private business, and partly because it does not have the stomach to charge market rates for services. After a burst of activity in the early nineties, the government is dragging its feet. At the rate it is going, it will be another 50 years before the government realizes that a pro-business policy is the best pro-people policy. By then of course, the world would have moved even farther ahead.

61. The writer's attitude towards the government is:
  - a. Critical
  - b. Ironic
  - c. Sarcastic
  - d. Derisive
62. The writer is surprised at the government's attitude towards its industrialists because:
  - a. The government did not need to protect its industrialists.
  - b. The issue of competition was nonexistent.
  - c. The government looked upon its industrialists as crooks
  - d. The attitude was a conundrum.
63. The government was compelled to open the economy due to:

- a. Pressure from international markets.  
 b. Pressure from the domestic market  
 c. Foreign exchange bankruptcy and paucity of funds with the government.  
 d. All of the above.
64. The writer ends the passage on a note of:  
 a. Cautious optimism  
 b. Pessimism  
 c. Optimism  
 d. Pragmatism
65. According to the writer, India should have performed better than the other Asian nations because:  
 a. It had adequate infrastructure.  
 b. It had better infrastructure.  
 c. It had better politicians who could take the required decisions.  
 d. All of the above.
66. India was in a better condition than the other Asian nations because:  
 a. It did not face the ravages of the Second World War.  
 b. It had an English speaking populace and good business sense.  
 c. It had enough wealth through its exports  
 d. Both (a) and (b) above.
67. The major reason for India's poor performance is:  
 a. Economic isolationism  
 b. Economic mismanagement  
 c. Inefficient industry  
 d. All of the above.
68. One of the features of the government's protectionist policy was:  
 a. Encouragement of imports.  
 b. Discouragement of exports.  
 c. Encouragement of exports.  
 d. Discouragement of imports
69. The example of the Korean Cielo has been presented to highlight:  
 a. India's lack of stature in the international market.  
 b. India's poor performance in the international market.  
 c. India's lack of credibility in the international market.  
 d. India's disrepute in the international market.
70. According to the writer:  
 a. India's politicians are myopic in their vision of the country's requirements.  
 b. India's politicians are busy lining their pockets.  
 c. India's politicians are not conversant with the needs of the present scenario.  
 d. All of the above.

**PASSAGE -3**

The new form of direct marketing is a big step up from today's crude version. But it is also in some ways a step backward. The first direct marketers were trusted local shopkeepers. Compared with today's direct marketers, whose best stab at intimacy is a pre-printed letter with a misspelt name, the local shopkeeper really knew his customers – remembering when to order a favorite bolt of fabric for one, suggesting a new cough tincture to another. “He carried his database in his head”, says Don Peppers, who with Martha Rogers was an early advocate of personalized marketing.

The transformation of direct marketing from its local origins into advertising's down market cousin dates from the birth of mass production, which enabled manufactures to produce goods in large quantities for sale by chain stores to unseen buyers. The first mass-produced shoes in America were called “straights”, with identical shapes for left and right feet. Lester Wunderman, inventor of the term “direct marketing”, believes that mass production has conditioned consumers to expect unsatisfactory service and goods. “It created a culture of things that didn't quite fit, didn't quite suit and didn't quite serve”, he says.

With mass retailing came mass advertising. Without direct contact with the consumer, manufacturers could not know who was buying what; only what was selling. Mass advertising established a link between a product and millions of faceless consumers. Brands – encapsulating a short, memorable message – were part of this relationship. The result has in many cases been fantastically successful: Coca-Cola has created an image that is instantly recognized and even has emotional resonance.

Yet branding is, at best, an imprecise art. Most consumers would be hard-pressed to explain why, say, Levis or Nike are losing cachet to such newcomers as Tommy Hilfiger. Because they sell through huge retailers, producers struggle to know why customers buy their brands. As advertising costs have risen and the media have fragmented, mass marketing has become harder and more costly. That, plus new computer technology has pushed direct marketing into the limelight. Its full potential is only just being grasped. By manipulating information, including data over the Internet, direct marketing can be targeted and personalized. It can even be intelligent—learning what customers like from what they buy and where they browse, as well as soliciting feedback via the telephone and e-mail. The result can be more effective than mass advertising.

The low costs of direct marketing have created a huge and fast-growing industry—made up of direct mail, telemarketing, database marketing, the Internet and free-phone TV, radio and print advertisements. In its biggest market, North America, the industry was worth \$ '163 billion in 1998, when it grew by 7% to almost three-fifths of the country's total spending on advertising. The industry expects 7% annual growth to

2002, beating the 5.5% forecast for advertising spending

Direct marketing is growing even faster in places where junk mail is new enough still to be welcome. Robert Wientzen, president of America's Direct Marketing Association, says that in Russia and the Czech Republic most junk mail is opened and read – indeed the average piece is pored over by more than one person. Even in China, despite an unreliable postal service and few credit cards, the government is encouraging direct marketing, partly to stop people migrating to cities in search of things to buy.

Yet most direct marketing remains clumsy. Britain's Direct Marketing Association admits its members spend \$ 30,000 (\$49,000) a year sending mailings to dead people. Typical success rates for most mail-shot campaigns in mature countries are no better than 2%. Steve Daper, chief executive of Rupp Collins, a big direct marketing agency, complains that consumer data are sold too freely, leading to pesky cold calls and junk mail. The trouble is that direct marketing is still driven by the same thinking as mass marketing.

Most direct marketing is based on profiles built by classification systems that use a mixture of census data, questionnaires, and electoral-roll information and, in America, credit-card data to segment populations. This information is passed to a direct-marketing agency to slice into profiles. Having defined a type, the agency buys the names and addresses of similar people from mailing lists sold by list brokers. The profiles are not sophisticated. Scott Adams, creator of the Dilbert cartoons, jokes that the most important category is “the Stupid Rich”, so named because of their tendency to buy anything that's new, regardless of cost or usefulness. If you sell enough to them, he says, you can afford to sell the rest to “The Stupid Poor”.

71. Why is today's direct marketing called crude?
- It is a crude attempt to become intimate with the customer.
  - It is unlike the shopkeepers of the past.
  - It is a crude method to sell things.
  - It is not sophisticated as mass marketing.
72. Why is the new form of marketing said to be a step backward?
- It goes back in history.
  - It tries to do what shopkeepers were trying to do earlier
  - It wants to learn traditional thinking and knowledge.
  - It is breaking away from mass advertising.
73. Why did direct marketing become advertising's down market cousin?
- Mass production became more popular.
  - It began to be looked down upon
  - Large quantities could be sold through mass advertising

- It became less fashionable because of chain stores.
74. The author's opinion about mass production is that:
- It has conditioned customers to accept unsatisfactory goods and services
  - It has created a culture of goods that are not perfectly all right.
  - It has made goods cheaper because of economies of scale.
  - It enabled manufacturers to produce goods in large quantities.
75. Why is branding an imprecise art?
- Producers do not know why customers buy their brands.
  - Producers do not know why Levi's is losing customers.
  - Mass marketing has become harder and more costly.
  - Direct marketing has been pushed into the limelight.
76. How can direct marketing become more effective than mass advertising?
- By using data on the Internet.
  - By making it more targeted and personalized.
  - By trying to learn what customers like.
  - By soliciting feedback through telephone and e-mail.
77. Which of the following factors have been identified as contributing to the popularity of direct marketing?
- Its low costs
  - High cost of advertising
  - Fragmentation of the media
- I & II
  - I & III
  - II & III
  - I, II & III
78. The rate of growth in Russia and Czech Republic is expected to be:
- Between 5.5 to 7%
  - More than 7%
  - Less than 5.5%
  - Cannot say
79. What is the most likely reason as to why mailings are sent to dead people?
- Direct marketing is driven by the same thinking as mass marketing
  - Consumer data are sold too freely
  - Data are bought from list brokers
  - Nobody bothered to update the data collected
80. The author feels that it is important to sell to “The Stupid Rich” because:
- They will buy anything new, contributing to profits
  - You can then afford to sell the rest to “The Stupid Poor”

- c. It is easier to sell to “The Stupid Poor”
- d. None of the above.

#### PASSAGE – 4

Of the greatest leaders, it is said by his followers, long after he has gone, he made us do it. If leadership is the art of persuading your people to follow your bidding, without their realizing your involvement, the archetype of its practice is N. R. Narayana Murthy, the chairman and managing director of the Rs 143.81 crore Infosys Technologies (Infosys). For, the 52 year old CEO of the globalised software corporation – which he founded with seven friends, and a combined capital of Rs. 10,000 in 1981, and which now occupies the front ranks of the country’s most admired corporations – leads with the subtlest of weapons: personal example. Infosys ranks only 578th among the country’s listed companies, and sixth in the software sector, in terms of its turnover. But it is setting new standards for India Inc. through its practice of inter alia awarding stock options to its employees, putting the value of its intellectual assets and its brands on its balance-sheet, and conforming to the disclosure standards of the Securities and Exchange Commission (SEC) of the US. Behind all this is the stubborn personal subscription of its CEO to the underlying causes of wealth-creation, people-power and transparency. “What were choices earlier are compulsions now,” asserts Murthy.

In fact, the mirror images of Murthy, the man, can be found all over Infosys. His Company. His egalitarianism – which finds expression in such habits as using the ‘same table and chair as anyone else in the organization – is practiced firmly when it comes to charting a course for the company’s future: everyone has a voice. “We have no hierarchy just for the sake of control.”

Brimming with the conviction that customer satisfaction is the key to success, Murthy has built a fleet-footed human resource management system that treats employees as customers, using the resources of the organization to meet their professional and personal needs. His instruments are not just top-of-the-market salaries, but also operational empowerment as well as every facility that an employee needs to focus on the job.

Just what methods does Murthy use to ensure that his DNA is replicated in his company? Not for him are the classical leadership genres – transactional or transformational, situational or visionary. His chosen style, instead, is to lead by example, ensuring that the CEO’s actions set the template for all Infosys.

Murthy believes that the betterment of man can be brought about through the “creation of wealth, legally and ethically”. The personal example that he has set enabled his company to mirror those beliefs: tying his own rewards, and measuring his value to the company, to his ability to create wealth, and erecting systems for the company’s wealth to be shared by its people. Sums

up Nandan Nilekani, 41, deputy managing director, Infosys: “This is the future model of the corporation. Run an excellent company, and let the market increase its value to create wealth.”

Although Murthy is one of the prime beneficiaries of the philosophy – his 10 per cent stake in Infosys is worth Rs 130 crore today – in his book, the leader leads not by grabbing the- booty- but by teaching others to take what they deserve.

That’s why, on the Infosys’ balance-sheet, the value of Murthy’s intellectual capital is nowhere near the top, on the rationale, that the CEO, at 52, is worth far less to his company than, say, a bright young programmer of 26. To spread the company’s wealth, Murthy has instituted stock options the first to do so in the country – for employees, creating 300 millionaires and growing to 1000 by 2000.

To act as a beacon for his version of the learning organization, Murthy not only spends an hour a day trawling the Internet to learn about new technological developments in his field, he also makes as many luncheon appointments as he can with technical people and academicians – dons from the Indian Institutes of Technology for instance – systematically plumbing their depths for an understanding of new developments in InfoTech. Murthy’s objective is not just to stay abreast of the state of the art, but also to find a way to use that knowledge for the company.

Following Murthy’s example, Infosys has set up a technology advancement unit, whose mandate is to track, evaluate, and assimilate new techniques and methodologies. In fact, Murthy views learning not just as amassing data, but as a process that enables him to use the lessons from failure to achieve success. This self-corrective loop is what he demonstrates through his leadership during a crisis.

In 1995, for example, Infosys lost a Rs. 15-crore account – then 20 percent of its revenues – when the \$69 billion GE yanked its business from it. Instead of recriminations, Murthy activated Infosys’ machinery to understand why the business was taken away, and to leverage the learning for getting new clients instead. Feeling determined instead of guilty, his employees went on to sign up high profile customers like the \$20 billion Xerox, the \$7 billion Levi Strauss, and the \$14 billion Nynex.

“You must have a multi-dimensional view of paradigms,” says the multi-tasking leader. The objective is obvious: ensure that Infosys’ perspective on its business and the world comes from as many vantage points as possible so that corporate strategy can be synthesized not from a narrow vision, but from a wide angle lens. In fact Murthy still regrets that, in its initial years, Infosys didn’t distil a multi-pronged understanding of the environment into its strategies, which forced it on to an incremental path that led revenues to snake up from Rs. 0.02 crore to just Rs. 5 crore in the first 10 years.

It was after looking around itself instead of focusing on its initial business of banking software, that Infosys managed to accelerate. Today the company operates with stretch targets, setting distant goals and working backwards to get to them. The crucial pillar on which Murthy bases his ethical leadership is openness. Transparency, he reckons, is the clearest signal that one has nothing to hide. The personal manifestations of that are inter alia the practice of always giving complete information whenever any employee, customer, or investor asks for it: the loudly proclaimed insistence that every Infosys pay taxes and file returns; and a perpetually open office into which anyone can walk into.

But even as he tries to lead Infosys into cloning its own approach to enterprise, is Murthy choosing the best future for it? If Infosys grows with the same lack of ambition, the same softness of style, and the same absence of aggression, is it not cutting off avenues of growth that others may seize? As Infosys approaches the 21st century, it is obvious that Murthy's leadership will have to set ever-improving role models for his ever-learning company. After all, men grow old: companies shouldn't.

81. One of the ways in which Infosys spreads the company's wealth among its employees is:
- By awarding stock options.
  - By giving extravagant bonus at the end of each year.
  - Both a) and b) above.
  - None of the above.
82. According to the passage, at Infosys,
- Control is exerted through a system of hierarchy.
  - Control is not exerted through a system of hierarchy.
  - Hierarchy does not have pride of place in the company.
  - Popular opinion is the most respected voice in the company.
83. We can say that Murthy believes in:
- Betterment of man through learning.
  - Betterment of man through ethical creation of wealth.
  - Betterment of man through experimentation.
  - All of the above.
84. The example of the Rs. 15-crore account highlights:
- Murthy's ability to see his company through a crisis.
  - Murthy's ability to turn failure into success.
  - Murthy's potential to handle a crisis.
  - All of the above.
85. According to Murthy, learning is:
- A process
  - The art of amassing data

- A process that helps him to learn from failure.
  - All of the above.
86. According to the passage,
- Infosys could not have succeeded without working backward.
  - Infosys succeeded because it worked backwards.
  - Working backwards contributed to Infosys' success.
  - Working backwards is the hallmark of Infosys' functioning today.
87. Openness at Infosys includes:
- The payment of taxes.
  - Giving complete information.
  - Sharing secrets.
  - Both a) and b)
88. It is evident from the passage that:
- Infosys will have to devise new strategies to meet the challenges of the 21<sup>st</sup> century.
  - Infosys will stagnate if it does not become aggressive.
  - Infosys may have to become more aggressive in order to retain its market.
  - None of the above.
  - Answered in the last paragraph.
89. The cornerstone of Murthy's human resource management system is:
- The employee as god.
  - Optimum utilization of human potential.
  - Customer satisfaction.
  - Satisfaction of personal needs.
90. According to the passage:
- Infosys is a reflection of its CEO.
  - Infosys brings the best out in Murthy.
  - Infosys and Murthy are synonymous.
  - Murthy the man and Murthy the CEO are incompatible.

### PASSAGE – 5

Water plays a versatile role in the functioning of the biosphere. The water cycle has two distinct branches – the atmospheric branch and the terrestrial branch. In the atmosphere, water exists mainly in gaseous form. On the earth, liquid forms and solid forms (ice/snow) predominate.

Water is important to the biosphere in that it is from water that the biosphere draws its most, abundant element, hydrogen. Hydrogen in the form of carbohydrates constitutes a very important source of energy for all living things. Although we have a plentiful supply of water in the oceans, it is not of direct use to use. We have to depend upon a small stock of water - less than 1% - contained in our rivers and fresh water lakes and in the subsoil. Even this small proportion can cause havoc to life if it is not properly managed: the reference here is to floods.

While relief measures are undoubtedly important, attention has to be focused on long-term flood control measures. In the past, we had constructed flood moderation reservoirs across catchment's areas of rivers, and built 19,260 km of embankments and 27,850 km length of drainage channels. Besides 18,900 villages have been raised above the flood level up to March 1997.

The fact is that long-term flood control measures, to be effective, should include both traditional methods and a forestation measures. The intensity of floods may be reduced by keeping the drainage channels clear and removing the accumulated silt from reservoirs and riverbeds. In fact, the dams built have trapped silt coming from the hills and prevented its large accumulation in riverbeds downstream. Hence the new emphasis on building more dams in the northern rivers should be welcomed. The embankments also need to be reinforced. In many places, they are just made of mud and sand and easily breached by a little gush of water. Other improvements should be in the regulation of water discharge from filled reservoirs and in the flood forecasting system. Even the present warning system, though inadequate, has helped to save many valuable lives and property. Since the states have been lethargic in implementing flood control schemes and since most rivers flow through many states, it would be better if flood control is handled by the Centre. The mighty Himalayan rivers are unlikely to be tamed unless we have a basic understanding as to how floods originate. Since 1947, Indian and foreign scientists have been repeatedly emphasizing that the volume of water in the Himalayan rivers in the monsoons is the combined effect of rainfall, snow melt and glacier discharges. Even the first expert committed set up by Nehru had opined that a serious study of the snow melt and glacier discharges is essential for avoiding flood disasters in the north. But efforts in this direction during the last 50 years have been very inadequate. Now that satellite pictures are available detailing the snow-cover in the Himalayas over large areas it would do well to initiate measures to obtain the relevant data from such pictures. Field studies in the Himalayan region would also help flood control measures.

91. Which of the following, according to the passage, is a new non-traditional method of flood control?
- Construction of flood moderation reservoirs across catchment areas of rivers.
  - Building embankments
  - Laying drainage channels
  - Planting more area with trees
92. The author speaks approvingly of all of the following except:
- Afforestation measures
  - The last five decades' efforts at studying the Himalayan environment.

- Emphasis On Building Dams
  - Inadequate flood warning system
93. The author welcomes building dams in the northern rivers because they:
- Prevent trapping the silt coming from in hills
  - Store water for power generation
  - Store water for irrigation
  - Store water for navigation
94. The author's attitude is
- Cynical
  - Critical
  - Constructive
  - Conservative
95. The author seems to favour:
- Traditional methods
  - Afforestation
  - Soil conservation measures
- I only
  - II only
  - III only
  - I & II only
96. Which of the following statements is/are definitely "TRUE in the context of the passage?"
- A significant proportion of water on the earth is not of direct use to us.
  - Water from rainfall, glaciers and snow-melt does not pose any threat to life and property.
  - Water exists in atmosphere in the same state as is available on the earth.
- I only
  - II only
  - III only
  - I & II only
97. The difficulty in controlling Himalayan rivers is:
- Inadequate number of dams
  - Inadequate number of reservoirs in catchment areas of rivers
  - Inadequate length of drainage channels
  - Lack of knowledge of snow melt and glacier discharges
98. Which of the following is a new suggestion of the author?
- Water discharge should be regulated
  - Drainage channels should be cleared up
  - The reservoirs built across the catchment areas of rivers should be desilted
  - A flood forecasting system should be established
99. A deficiency in the flood control measures contributing to the intensity of floods is the:
- Clearing up of the drainage channels
  - Desilting of reservoirs built across the catchment areas of rivers
  - Desilting of river beds
  - Embankments are weak

100. According to the passage, flood problem arises because:
- Afforestation and soil conservation measures have not been taken
  - Reservoirs across catchment areas of rivers have not been built
  - Embankments have not been built
  - Drainage channels have not been laid

### SECTION-III

**Directions for Q 101 to 103:** A race consists of three stretches A, B and C of 2 kms length each. The mode of coverage, and maximum and minimum of speeds possible in each stretch are:

Stretch	Mode	Minimum Speed (km/h)	Maximum speed (km/h)
A	Car	40	60
B	Motorcycle	30	50
C	Bicycle	10	20

Speed in a given stretch remains constant. The previous record was ten minutes to complete the race.

101. Anshuman travelled at the minimum speed by car and at maximum speed over the stretch B. What should be his minimum speed over stretch C to beat the previous record?
- 15 kmph
  - Not possible to beat the previous record
  - 20 kmph
  - None of these
102. Mr. Hare travelled at the slowest speed in stretch A and took the same amount of time to travel in stretch B as he took in stretch A. If he took fifty percent more time than the previous record to complete the race, what was his speed in the stretch C?
- 10 kmph
  - 15 km/h
  - 20 kmph
  - None of these
103. Mr. Tortoise travelled in the overall race at an average speed of 20 km/h. However, his average speed over the first two stretches combined was four times that over the last stretch. What was his speed over the last stretch?
- 15 km/h
  - 10 km/h
  - 20 km/h
  - Cannot be determined

#### Directions for questions 104 to 106:

There are 60 students in a class. These students are divided into three groups A, B and C of 15, 20 and 25 students each. The groups A and C are combined to form group D.

104. What is the average weight of the students in group D?

- More than the average weight of A
  - More than the average weight of C
  - Less than the average weight of C
  - Cannot be determined.
105. If one students from Group A is shifted to group B, which of the following will be true?
- The average weight of both groups increases.
  - The average weight of both the groups decreases.
  - The average weight of the class remains the same.
  - Cannot be determined.
106. If all the students of the class have the same weight, then which of the following is false?
- The average weight of all the four groups is the same.
  - The total weight of A and C is twice the total weight of B.
  - The average weight of D is greater than the average weight of A.
  - The average weight of all the groups remains the same even if a number of students are shifted from one group to another.

#### Directions Q 107 to 121:

These questions are independent of each other.

107. A student gets an aggregate of 60% marks in five subjects in the ratio 10:9:8:7:6. If the passing marks are 50% of the maximum marks and each subjects has the same maximum marks, in how many subjects did he pass the exam?
- 2
  - 3
  - 4
  - 5
108. In how many ways can the eight directors, the Vice chairman and the Chairman of a firm be seated at around- table, if the Chairman has to sit between the Vice- chairman and a director?
- $9! \times 2$
  - $2 \times 8!$
  - $2 \times 7!$
  - None of these
109. If  $\log_2 \left[ \log_7 (x^2 - x + 37) \right] = 1$ , then what could be the value of x?
- 3
  - 5
  - 4
  - None of these
  - c
110. After a discount of 11.1 1%, a trader still makes a gain of 14.28%. At how many percent above the cost price does he mark his goods?
- 28.56%

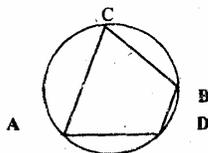
- b. 35%  
c. 22.22%  
d. None of these
111. How many values of the natural number  $n$  are possible so that the expression  $(16n^2 + 7n + 6)/n$  is also a natural number?  
a. Infinitely many  
b. 3  
c. 4  
d. None of these  
e. d & c
112. A dry fruit seller purchased 3 kinds of nuts at the rate of Rs. 100/kg, Rs. 80/kg and Rs. 60/kg. He then mixed them, respectively, in the ratio 3:4:5 by weight and sold the same to a customer at 50% profit. The price at which he sold to the customer is  
a. Rs. 110  
b. Rs. 90  
c. Rs. 70  
d. None of these
113. Fresh grapes contain 90% water by weight while dried grapes contain 20% water by weight. The weight of dry grapes available from 20 kg of fresh grapes will be.  
a. 2 kg  
b. 2.4 kg  
c. 2.5 kg  
d. None of these
114. An express train moving at the rate of 80 km per hour overtakes completely a good train twice as long and moving on a parallel line in the same direction at the rate of 40 km per hour in 54 seconds. How long will the express train take to completely pass through a station 4000 meters in length?  
a. 54 seconds  
b. 27 seconds  
c. 18 seconds  
d. None of these
115. A candidate was asked to find  $7/8$ th of a positive number; he found  $7/18$ th of the same by mistake. If his answer was 770 less than the correct one, then the original given number was  
a. 1260  
b. 6160  
c. 1584  
d. None of these
116. P and Q are two integers such that  $P \times Q = 64$ . Which of the following cannot be the value of  $P+Q$ ?  
a. 20  
b. 65  
c. 16  
d. 35
117. The average marks of a student in ten papers are 80. If the highest and the lowest scores are not considered, the average is 81. If his highest score is 92, find the lowest.  
a. 55  
b. 60  
c. 62  
d. Cannot be determined
118. If the roots,  $x_1$  and  $x_2$  of the quadratic equation  $x^2 - 2x + c = 0$  also satisfy the equation  $7x_2 - 4x_1 = 47$ , then which of the following is true?  
a.  $c = -15$   
b.  $x_1 = -5, x_2 = 3$   
c.  $x_1 = 4.5, x_2 = -2.5$   
d. None of these
119. The sum of the areas of two circles which touch each other externally is  $153\pi$ . If the sum of their radii is 15, find the ratio of the larger to the smaller radius.  
a. 4  
b. 2  
c. 3  
d. None of these
120. If  $m$  and  $n$  are integers divisible by 5, which of the following is not necessarily true?  
a.  $m-n$  is divisibly 5.  
b.  $m^2 - n^2$  is divisible by 25.  
c.  $m+n$  is divisible by 10  
d. None of the above.
121. Which of the following is true?  
a.  $\frac{3^2}{7} = (7^3)^2$   
b.  $\frac{3^2}{7} > (7^3)^2$   
c.  $\frac{3^2}{7} < (7^3)^2$   
d. None of these
- Directions Q 122 to 124:** A survey of 200 people in a community who watched at least one of the three channels – BBC, CNN and DD showed that 80% of the people watched DD, 22% watched BBC, and 15% watched CNN.
122. What is the maximum percent of people who can watch all the three channels?  
a. 12.5  
b. 8.5  
c. 17  
d. Insufficient data
123. If 5% of the people watched DD and CNN, 10% watched DD and BBC, then what percent of the people watched BBC and CNN only?  
a. 2%  
b. 5%  
c. 8.5%  
d. Cannot be determined

124. Referring to the previous question, how many percent of the people watched all the three channels?
- 3.5%
  - 0%
  - 8.5%
  - Cannot be determined

**Directions Q 126 to 127:**

These questions are independent of each other.

125. A man earns  $x\%$  on the first 2000 rupees and  $y\%$  on the rest of his income. If he earns Rs 700 from Rs 4000 and Rs 900 from Rs 5000 of income, find  $x$ .
- 20
  - 15
  - 35
  - None of these
126. AB is the diameter of the given circle, while points C and D lie on the circumference as shown. If AB is 15 cm, AC is 12 cm and BD is 9 cm, find the area of the quadrilateral ACBD.



- $54\pi$
  - $216\pi$
  - $162\pi$
  - None of these
127. P, Q and R are three consecutive odd numbers in ascending order. If the value of three times P is three less than two times R, find the value of R.
- 5
  - 7
  - 9
  - 11

**Directions Q 128 to 130:**

For these questions, the following functions have been defined:

$$la(x,y,z) = \min(x+y, y+z)$$

$$le(x,y,z) = \max(x-y, y-z)$$

$$ma(x,y,z) = (1/2) [le(x,y,z) + la(x,y,z)]$$

128. Given that  $x > y > z > 0$ , which of the following is necessarily true?
- $la(x,y,z) < le(x,y,z)$
  - $ma(x,y,z) < la(x,y,z)$
  - $ma(x,y,z) < le(x,y,z)$
  - None of these
129. What is the value of  $ma(10, 4, le(la(10, 5, 3), 5, 3))$
- 7.0
  - 6.5
  - 8.0

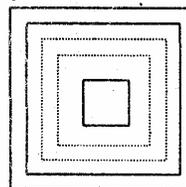
d. 7.5

130. For  $x = 15$ ,  $y = 10$  and  $z = 9$ , find the value of  $le(x, \min(y, x-z), le(9, 8, ma(x,y,z)))$ .
- 5
  - 12
  - 9
  - 4

**Directions Q 131 to 136:**

These questions are independent of each other.

131. ABC is a three-digit number in which  $A > 0$ . The value of ABC is equal to the sum of the factorials of its three digits. What is the value of B?
- 9
  - 7
  - 4
  - 2
132. The adjoining figure shows a set of concentric squares.



If the diagonal of the innermost square is 2 units, and if the distance between the corresponding corners of any two successive squares is 1 unit, find the difference between the areas of the eighth and the seventh square, counting from the innermost square.

- $10^2$
  - 30
  - $35^2$
  - None of these
133. A, B and C are defined as follows:
- $$A = (2.000004) \div \left[ (2.000004)^2 + (4.000008) \right]$$
- $$B = (3.000003) \div \left[ (3.000003)^2 + (9.000009) \right]$$
- $$C = (4.000002) \div \left[ (4.000002)^2 + (8.000004) \right]$$
- Which of the following is true about the value of the above three expressions?
- All of them lie between 0.18 and 0.20.
  - A is twice C.
  - C is the smallest.
  - B is the smallest.
134. The value of each of a set of silver coins varies as the square of its diameter, if its thickness remains constant; and it varies as the thickness, if the diameter remains constant. If the diameters of two coins are in the ratio 4:3 what should the ratio of their thicknesses be if the value of the first is 4 times that of the second?
- 16:9

- b. 9:4  
c. 9:16  
d. 4:9
135. In a triangle ABC, points P, Q and R are the mid-points of the sides AB, BC and CA respectively. If the area of the triangle ABC is 20 sq units, find the area of the triangle PQR
- a. 10 sq. units  
b. 15 sq. units  
c. 5 sq. units  
d. None of these
136. In a rectangle, the difference between the sum of the adjacent sides and the diagonal is half the length of the longer side. What is the ratio of the shorter to the longer side?
- a. 3:2  
b. 1:3  
c. 2:5  
d. 3:4

**Directions Q 137 and 138:**

At Weird Holiday Company, an employee gets a holiday on those days whose first letter is the same as the first letter of the employee's name. All other days are working days. For instance, William gets a holiday on each Wednesday. Assume that the daily productivity of all employees is the same.

137. Raja stated the work on Sunday, the 25th February 1996 and finished the work on March 2, 1996. If Tom and Jerry were assigned this task on 25th February 1996, when will the work have been completed?
- a. 26th February 1996  
b. 1st March 1996  
c. 28th February 1996  
d. Tom and Jerry cannot possibly work together
138. If Raja had actually completed the work on April 2, 1996, and if Tom and Shyam were assigned the same task on the same starting day, when will the work have been completed?
- a. March 15, 1996  
b. March 22, 1996  
c. March 29, 1996  
d. April 2, 1996

**Directions Q 139 to 141:**

Boston is 4 hours ahead of Frankfurt and two hours behind India. X leaves Frankfurt at 06:00 p.m. on Friday and reaches Boston the next day. After waiting there for two hours, he leaves exactly at noon and reaches India at 01:00 a.m. On his return journey, he takes the same route as before, but halts at Boston for one hour less than his previous halt there. He then proceeds to Frankfurt.

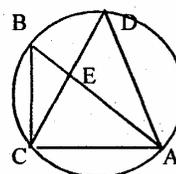
139. If his journey, including stoppages, was covered at an average speed of 180 miles per

hour, what was the distance between Frankfurt and India?

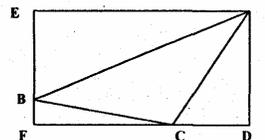
- a. 3600 miles  
b. 4500 miles  
c. 5580 miles  
d. Insufficient data.
140. If X had started his return journey from India at 02:55 a.m. on the same day that he reached there, after how much time would he reach Frankfurt?
- a. 24 hrs  
b. 25 hrs  
c. 26 hrs  
d. Insufficient data.
141. What was X's average speed for the entire journey?
- a. 170 mph  
b. 180 mph  
c. 165 mph  
d. Insufficient data

**Directions Q 142 to 143:** These questions are independent of each other.

142. In the adjoining figure, points A, B, C and D lie on the circle. AD = 24 and BC = 12. What is the ratio of the area of the triangle CBE to that of the triangle ADE?



- a. 1:4  
b. 1:2  
c. 1:3  
d. Insufficient data
143. In the given figure, EADF is a rectangle and ABC is a triangle whose vertices lie on the sides of EADF. AE = 22, BE = 6, CF = 16 and BF = 2. Find the length of the line joining the mid-points of the sides AB and BC.



- a.  $4\sqrt{2}$   
b. 5  
c. 3.5  
d. None of these

**Directions Q 144 and 145:**

These questions are based on the following data:

A thief flees City A in a car towards City B on a stretch of straight road, 300 kilometers long, at the

speed of 60 km/hr. In 15 minutes a police party (X) leaves city A to chase the thief at 65 km/hr.

144. After leaving how long does it take for the police party X to catch the thief?
- 2 hrs 45min
  - 3hrs
  - 3 hrs 15 mm
  - None of these
145. If a police party (Y) were to leave City B at the same time as police party X leaving City A to catch the thief at 60km/hr., then which of the following statements is true?
- Party X reaches 37.5 minutes after Party Y has caught the thief.
  - Party Y reaches 37.5 minutes after Party X has caught the thief
  - Party X and Party Y has caught the thief together.
  - Party X was 20 km away when the thief caught.

#### SECTION-IV

**Directions Q 146 to 155:** Data Sufficiency.

**Mark (a)** If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.

**Mark (b)** If the question can be answered by using either statement alone.

**Mark (c)** If the question can be answered by using both statements together, but cannot be answered by using either statement alone.

**Mark (d)** If the question cannot be answered even by using both the statements together.

146. The values of  $x$  and  $y$  can be determined uniquely if
- $3x + 2y = 45$
  - $10.5x + 7y = 130$
- If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
  - If the question can be answered by using either statement alone.
  - If the question can be answered by using both statements together, but cannot be answered by using either statement alone.
  - If the question cannot be answered even by using both the statements together.
147. A number is divisible by 99 if
- The number is simultaneously divisible by 9 and 11.
  - A number formed by reversing the positions of the digits of the same number is divisible by 99.
- If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.

- If the question can be answered by using either statement alone.
- If the question can be answered by using both statements together, but cannot be answered by using either statement alone.
- If the question cannot be answered even by using both the statements together.

148. The total capacity of production for two types of fans is 20,000 units. Using a total of 50 tons of materials for production of both types of fans and operating at full capacity, what is the production of the type I if

- The rate of consumption of materials for type I is 2 kg of materials per fan.
  - The rate of consumption of material for type II is 3 kg of materials per fan.
- If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
  - If the question can be answered by using either statement alone.
  - If the question can be answered by using both statements together, but cannot be answered by using either statement alone.
  - If the question cannot be answered even by using both the statements together.

149. A product was sold for Rs  $S$  at a profit of  $p\%$  where the cost of manufacturing the product consists of raw materials, labour and overheads. The cost of raw materials, labour and overheads are increased and the company intends to sell the product at a profit. What is the new selling price?

- Cost for raw materials, labour and overheads are in the ratio of R: L: OH prior to increase in cost.
  - Cost for raw materials, labour and overheads are increased by  $r\%$ ,  $1\%$  and  $oh\%$  respectively.
- If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
  - If the question can be answered by using either statement alone.
  - If the question can be answered by using both statements together, but cannot be answered by using either statement alone.
  - If the question cannot be answered even by using both the statements together.

150. Three friends, P, Q and R are wearing hats, either black or white. Each person can see the hats of the other two persons. What is the colour of P's hat?

- P says that he can see one black hat and one white hat.
- Q says that he can see one white hat and one black.

- a. If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
- b. If the question can be answered by using either statement alone.
- c. If the question can be answered by using both statements together, but cannot be answered by using either statement alone.
- d. If the question cannot be answered even by using both the statements together.
151. What is the speed of the car?
- A. The speed of the car is 10 more than that of a motorcycle.
- B. The motor-cycle takes 2 hours more than the car to cover 100 kms.
- a. If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
- b. If the question can be answered by using either statement alone.
- c. If the question can be answered by using both statements together, but cannot be answered by using either statement alone.
- d. If the question cannot be answered even by using both the statements together.
152. What is the ratio of the volume of the given right circular cone to the one obtained from it?
- A. The smaller cone is obtained by passing a plane parallel to the base and dividing the original height in the ratio 1:2.
- B. The height and the base of the new cone are one-third those of the original cone.
- a. If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
- b. If the question can be answered by using either statement alone.
- c. If the question can be answered by using both statements together, but cannot be answered by using either statement alone.
- d. If the question cannot be answered even by using both the statements together.
153. What is the area bounded by the two lines and the coordinate axes in the first quadrant?
- A. The lines intersect at a point which also lies on the lines  $3x - 4y = 1$  and  $7x - 8y = 5$ .
- B. The lines are perpendicular, and once of them intersects the y-axis at an intercept of 4.
- a. If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
- b. If the question can be answered by using either statement alone.
- c. If the question can be answered by using both statements together, but cannot be answered by using either statement alone.
- d. If the question cannot be answered even by using both the statements together.
154. What is the cost price of the chair?
- A. The chair and the table are sold, respectively, at a profit of 5% and 20%.
- B. If the cost price of the chair is increased by 10% and that of the table is increased by 20%, the profit reduces by Rs. 20.
- a. If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
- b. If the question can be answered by using either statement alone.
- c. If the question can be answered by using both statements together, but cannot be answered by using either statement alone.
- d. If the question cannot be answered even by using both the statements together.
155. After what time will the two persons, X and Y meet while moving around the circular track? Both of them start from the same point and at the same time.
- A. X moves at a constant speed of 5 m/s, while Y starts at a speed 2 m/s and increases his speed by 0.5 m/s at the end of every second thereafter.
- B. Y can complete one entire lap in exactly 10 seconds.
- a. If the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
- b. If the question can be answered by using either statement alone.
- c. If the question can be answered by using both statements together, but cannot be answered by using either statement alone.
- d. If the question cannot be answered even by using both the statements together.

**Directions for questions 156 to 160:** Answer these questions with the help of the following table.

**Hotels in Mumbai**

Project	No. of rooms	Cost (in Re. crore)	Year of completion	Company
Welcomgroup	600	275	1999	IHCL
Leela Hotels	300	225	1999	Leela Hotels
Mumbai Heights	200	225	1998	Bombay Hotels
Royal Holidays	536	250	1998	Lockandwala Group
Majestic Holiday	500	250	1999	Raheja Group
Supreme Hotel	300	300	1999	ITC
Hyatt	500	256	2000	Asian Hotels

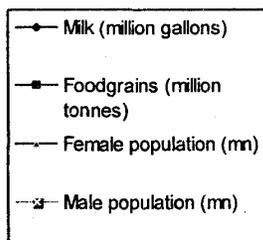
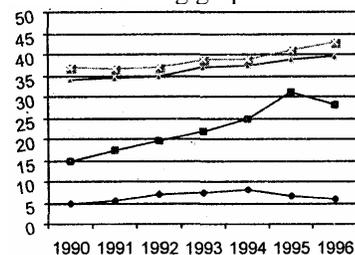
Note: Date of start of all projects is 1997

156. Which of the following had the least cost per room?  
 a. Lokhandwala  
 b. Raheja  
 c. IHCL  
 d. ITC
157. Which of the following has the maximum number of rooms per crore of rupees?  
 a. THCL  
 b. Raheja  
 c. Lokhandwala  
 d. ITC

**Directions Q 158 to 160:** For these questions, assume that the cost of the project is incurred in the year of completion. Interest is charged @ 10% per annum.

158. What is the cost incurred (in Rs. crore) for projects completed in 1998?  
 a. 255  
 b. 475  
 c. 522.5  
 d. 502.5
159. What is the cost incurred (in Rs cr) for projects completed in 1999?  
 a. 1282.6  
 b. 1270.0  
 c. 1475  
 d. 1535.0
160. What approximately is the cost incurred (in Re. crore) for projects completed by 2000?  
 a. 1785  
 b. 2140  
 c. 2320  
 d. None of these

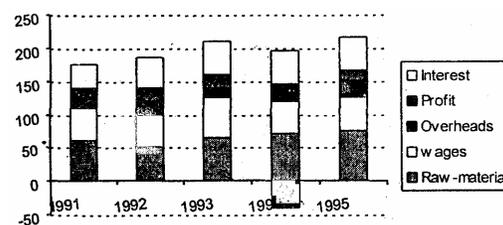
**Directions Q 161 to 166:** These questions are based on the following graph.



161. When was the per capita production of milk the least?

- a. 1990  
 b. 1992  
 c. 1994  
 d. 1996
162. When was the per capita production of food grains the most?  
 a. 1992  
 b. 1993  
 c. 1994  
 d. 1995
163. In which year was the difference between the increase in the production of food grains and milk the maximum?  
 a. 1993  
 b. 1994  
 c. 1995  
 d. 1996
164. If milk contains 320 calories and food grains contain 160 calories, in which year was the per capita consumption of calories the highest?  
 a. 1993  
 b. 1994  
 c. 1995  
 d. 1996
165. If one gallon of milk contains 120 gm of a particular nutrient and one ton of food grains contains 80 gm of the same nutrient, in which year was the availability of this nutrient the maximum?  
 a. 1993  
 b. 1994  
 c. 1995  
 d. 1996
166. Referring to the above question, in which year was the per capita consumption of this nutrient the highest?  
 a. 1993  
 b. 1994  
 c. 1995  
 d. 1996

**Directions for questions 167 to 172:**



167. The maximum decrease in profit occurred between the years.  
 a. 1991-92  
 b. 1993-94  
 c. 1992-93  
 d. 1994-95
168. The difference between the amount spent on raw material and wages was the least in  
 a. 1991  
 b. 1992

- c. 1993  
d. 1995
169. The average profit, in lakhs of rupees, over the five-year period was approximately
- 10
  - 19
  - 13
  - 28
170. In which year was the amount spent on raw material per unit wage cost the maximum?
- 1992
  - 1993
  - 1995
  - 1994
171. The maximum percentage increase in sales revenue between any two successive years was:
- 27
  - 45
  - 34
  - 60
172. Which cost component has remained relatively stable over the five years?
- Raw material
  - Interest
  - Wages
  - Overheads

**Directions Q173 to 177:** The following table gives the tariff (in paise per kilo-watt-hour) levied by the UPSEB in 1994–95, in the four sectors and the regions within them. The table also gives the percentage change in the tariff as compared to 1991–92.

	Region 1 p/kwh	% inc r	Region 2 p/kwh	% inc r	Region 3 p/kwh	% inc r	Region 4 p/kwh	% inc r	Region 5 p/kwh	% inc r
Sector 1	425	+15	472	+5	420	-4	415	+8	440	+10
Sector 2	430	+12	468	+8	448	+7	423	-3	427	+11
Sector 3	428	+8	478	-4	432	+6	441	+10	439	+8
Sector 4	434	-5	470	+15	456	+10	451	+12	446	-12

173. If the amount of power consumed by the various regions in Sector 1 is the same, then,

as compared to 1991–92, the net tariff in 1994–95:

- Increases by 6.5%
  - Decreases by 3.5%
  - Increases by 10.2%
  - Decreases by 7.3%
174. What approximately was the average tariff in Region 3 in 1991–92?
- 407
  - 420
  - 429
  - None of these

**Directions Q 175 to 177:** The UPSEB supplies power under four categories, Urban (25%), Domestic (20%) Industrial (40%) and Rural (15%). In 1994–95, the total power produced by the UPSEB was 7875 Megawatts.

175. If in 1994–95, there was a 10% decrease in the domestic consumption of power as compared to that in 1991–92, what was the consumption of power in the rural sector in 1991–92?
- 1312
  - 1422
  - 1750
  - None of these
176. In the given two years, what is the total tariff paid by the Urban sector (in Rs. lakh)?
- 22.4
  - 21.6
  - 27.2
  - Cannot be determined
177. Which of the following is true?
- The average tariff in Region 4 is 437.5 p/kwh.
  - The average tariff in Region 2 is greater than the average tariff in Region 5.
  - In 1991–92, the industrial sector contributed to about 42% of the total revenue from power.
  - None of these

**Directions for questions 178 to 185:** The questions are based on the following information.

Year	No. of Rural banks	Average no. of loans	Average size (Rs.)	Agricultural Loans		Consumer Price Index
				No. ('000)	Value (Rs. mn)	
1970	90	28	109	18.3	2.00	43
1971	115	39	133	20.4	3.58	49
1972	130	52	178	25.1	6.26	55
1974	260	98	243	41.2	34.54	70
1975	318	121	283	51.4	52.21	78
1980	605	288	567	135.7	498.4	131
1981	665	312	622	152.8	612.4	137
1983	840	380	711	211.6	915.7	149

178. In 1974, agricultural loans formed what percent of the total loans?
- 88%
  - 71%
  - 77%
  - Cannot be determined
179. From the given data, the number of rural loans up to 1980 formed approximately what percent of those in 1983?
- 112%
  - 80%
  - 97%
  - Cannot be determined
180. Which of the following pairs of years showed the maximum increase in the number of loans?
- 1971–72
  - 1974–75
  - 1970–71
  - 1980–81
181. What is the value of Agricultural loans in 1983 at 1970 prices?
- 3265
  - 3175
  - 3085
  - None of these
182. In which year was the number of loans per rural bank the least?
- 1974
  - 1971
  - 1970
  - 1975
183. What is the simple annual rate of increase in the number of Agricultural loans from 1970 to 1983?
- 132%
  - 81%
  - 75%
  - 1056%

**Additional information for Q 184 to 185:**

The Consumer Price Index for 1970 is to be taken as 105 and the Indices for the subsequent years are to be corrected accordingly.

184. By roughly how many points do the Indices for the years 1983 and 1975 differ?
- 175
  - 180
  - 188
  - 195
185. What is the value of the loans in 1980 at 1983 prices?
- 570
  - 675
  - 535
  - 440