CAT 1997 Question Paper

Common Admission Test · Indian Institutes of Management

185 Questions

General Instructions

(i) This paper contains **185 questions** from **CAT 1997**. The original examination was a **paper-based test**.

(ii) The question groups appear in their original sequence: **Verbal Ability** (50 questions); **Reading Comprehension** (50 questions); **Quantitative Ability** (45 questions); **Data Interpretation** (40 questions).

(iii) Each question has **four choices**. Select the single best answer, using the shared passage, table or diagram wherever indicated.

(iv) Read the directions for every question group carefully. Question numbers continue across the paper.

(v) Passages and questions may continue onto the following page. Read each question and all its choices before answering.

Verbal Ability · Questions 1-50

1. Select the pair that best expresses a relationship similar to the one expressed in the question pair. Peel : Peal

(A) Coat : Rind
(B) Laugh : Bell
(C) Rain : Reign
(D) Brain : Cranium

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2. Select the pair that best expresses a relationship similar to the one expressed in the question pair. Doggerel : Poet

(A) Symphony : Composer
(B) Prediction : Astrologer
(C) Wine : Vintner
(D) Pulp fiction : Novelist

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3. Select the pair that best expresses a relationship similar to the one expressed in the question pair. Premise : Conclusion

(A) Assumption : Inference
(B) Hypothesis : Idea
(C) Knowledge : Books
(D) Brand : Marketing

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4. Select the pair that best expresses a relationship similar to the one expressed in the question pair. **Barge : Vessel**

(A) Shovel : Implement
(B) Book : Anthology
(C) Rim : Edge
(D) Training : Preparation

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5. Select the pair that best expresses a relationship similar to the one expressed in the question pair. Love : Obsession

(A) Happiness : Victory
(B) Amity : Enimity
(C) Enemy : Hatred
(D) Sorrow : Misery

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6. Select the pair that best expresses a relationship similar to the one expressed in the question pair. Reptile : Adder

(A) Skeleton : Flesh
(B) Method : System
(C) Plant : Genus
(D) Dinosaur : Tyrannosaurus

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7. Choose the set in which the third statement logically follows from the first two. A. No bird is viviparous. B. All mammals are viviparous. C. Bats are viviparous. D. No bat is a bird. E. No bird is a mammal. F. All bats are mammals.

(A) ADC
(B) ABE
(C) FBA
(D) AFC

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8. Choose the set in which the third statement logically follows from the first two. A. No mother is a nurse. B. Some nurses like to work. C. No woman is a prude. D. Some prude are nurses. E. Some nurses are women. F. All women like to work.

(A) ABE
(B) CED
(C) FEB
(D) BEF

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9. Choose the set in which the third statement logically follows from the first two. A. Oranges are sweet. B. All oranges are apples. C. Some sweet are apples. D. Some oranges are apples. E. All sweet are sour. F. Some apples are sour.

(A) DAC
(B) CDA
(C) BCA
(D) FEC

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10. Choose the set in which the third statement logically follows from the first two. A. Zens are Marutis. B. Zens are fragile. C. Marutis are fragile. D. Opels are fragile. E. Marutis are Opels. F. Opels are stable.

(A) ACB
(B) EFD
(C) CEA
(D) ABC

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11. Choose the set in which the third statement logically follows from the first two. A. Dogs sleep in the open. B. Sheep sleep indoors. C. Dogs are like sheep. D. All indoors are sheep. E. Some dogs are not sheep. F. Some open are not sheep.

(A) AFE
(B) DCA
(C) ABE
(D) None of these

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12. Select a pair of sentences that relate logically to the given statement. 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

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13. Select a pair of sentences that relate logically to the given statement. 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

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14. Select a pair of sentences that relate logically to the given statement. 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

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15. Select a pair of sentences that relate logically to the given statement. When I read a horror story I have a nightmare. A. I read a story. B. I did not read a horror story. C. I did not have a nightmare. D. I had a nightmare.

(A) CB
(B) AD
(C) BC
(D) AC

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16. Select a pair of sentences that relate logically to the given statement. 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) None of these

Questions 17 to 21

From the choices given, you are required to choose the one, which would best replace the phrase in quotes.

17. This government has given subsidies to the Navratnas but there is no telling 'whether the subsequent one will do'.

(A) whether the subsequent government will do so

(B) if the government to follow will accept the policy

(C) if the government to follow will adhere to the policy

(D) whether the subsequent one will do so

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18. Rahul Bajaj has done a great job of taking the company to its present status, but it is time that he 'let go off the reins'.

(A) let go of the reins

(B) stepped down

(C) let go off the reins

(D) delegated responsibility

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19. With the pick up 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) started mushrooming all over the country

(C) started mushrooming in every corner of the country

(D) blossomed all over the country

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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

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21. 'It must be noticed' that under no circumstance should the company go in for diversification.

(A) It must be noticed

(B) It must be noted

(C) It must be pointed out

(D) It should be noticed

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22. An act of justice closes the book on a misdeed; an act of vengeance ___.

(A) is reprehensible

(B) is sordid

(C) reopens the first chapter

(D) writes an epilogue

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23. This is about ___ a sociological analysis can penetrate.

(A) as far as

(B) the outer limits that

(C) just how far into the subject

(D) just the relative distance that

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24. I am always the first to admit that I have not accomplished anything 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. In India the talent is prodigious, and it increases ___.

(A) each year
(B) year by year
(C) annually
(D) progressively

27. Fill in the Blanks: The present constitution will see ___ amendments but its basic structure will survive.

(A) much more
(B) many more
(C) too many more
(D) quite a few more

28. Fill in the Blanks: Taking risks, breaking the rules, and being a maverick have always been important for companies, but, today, they are ___.

(A) more crucial than ever
(B) more crucial
(C) much more crucial
(D) very crucial

29. Fill in the Blanks: Education is central because electronic networks and software-driven technologies are beginning to ___ the economic barriers between nations.

(A) break down
(B) break
(C) crumble
(D) dismantle

30. Arrange sentences A, B, C and D between sentences 1 and 6, so as to form a logical sequence of six sentences. 1. Whenever technology has flowered, it has put man's language — developing skills into over-drive. A. Technical terms are spilling into mainstream language almost as fast as junk — mail is slapped into e-mail boxes. B. The era of computers is no less. C. From the wheel with its axle to the spinning wheel with its bobbins, to the compact disc and its jewel box, inventions have trailed new words in their wake. D. "Cyberslang is huge, but it's parochial, and we don't know what will filter into the large culture," said Tom Dalzell, who wrote the slang dictionary Flappers 2 Rappers. 6. Some slangs already have a pedigree.

(A) BCAD
(B) CBAD
(C) ABCD
(D) DBCA

31. Arrange sentences A, B, C and D between sentences 1 and 6, so as to form a logical sequence of six sentences. 1. Until the MBA arrived on the scene the IIT graduate was king. A. 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. B. From the day he or she cracked the Joint Entrance Examination, the IIT student commanded the awe of neighbours and close relatives. C. IIT students had, meanwhile, also developed their own special culture, complete with lingo and attitude, which they passed down. D. True, the success stories of IIT graduates are legion and they now constitute the cream of the Indian diaspora. 6. But not many alumni

would agree that the IIT undergraduate mindset merits a serious psychological study, let alone an interactive one.

(A) BACD
(B) ADCB
(C) BADC
(D) ABCD

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32. Arrange sentences A, B, C and D between sentences 1 and 6, so as to form a logical sequence of six sentences. 1. Some of the maharajas, like the one at Kapurthala, had exquisite taste. A. 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. B. Yeshwantrao Holkar of Indore brought in Bauhaus aesthetics and even works of modern artists like Brancusi and Duchamp. C. Kitsch is the most polite way to describe them. D. But many of them, as the available light photographs show, had execrable taste. 6. Like Ali Baba's caves, some of the palaces were like warehouses with the downright ugly next to the sublimely aesthetic.

(A) BACD
(B) BDCA
(C) ABCD
(D) ABDC

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33. Arrange sentences A, B, C and D between sentences 1 and 6, so as to form a logical sequence of six sentences. 1. There, in Europe, his true gifts unveiled. A. Playing with Don Cherie, blending Indian music and jazz for the first time, he began setting the pace in the late 70s for much of what present — day fusion is. B. John McLaughlin, the legendary guitarist whose soul has always had an Indian stamp on it, was seduced immediately. C. Fusion by Gurtu had begun. D. He partnered Gurtu for four years, and 'natured' him as a composer. 6. But for every experimental musician there's a critic nestling nearby.

(A) ABCD
(B) BCAD
(C) ADBC
(D) ABDC

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34. Arrange sentences A, B, C and D between sentences 1 and 6, so as to form a logical sequence of six sentences. 1. India, which has two out of every five TB patients in the world, is on the brink of a major public health disaster. A. If untreated, a TB patient can die within five years. B. Unlike AIDS, the great curse of modern sexuality, the TB germ is airborne, which means there are no barriers to its spread. C. The dreaded infection ranks fourth among major killers worldwide. D. Every minute, a patient falls prey to the infection in India, which means that over five lakh people die of the disease annually. 6. Anyone, anywhere can be affected by this disease.

(A) CADB
(B) BACD
(C) ABCD
(D) DBAC

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35. Arrange the sentences A, B, C and D in a proper sequence so as to make a coherent paragraph. A. It begins with an ordinary fever and a moderate cough. B. India could be under attack from a class of germs that cause what are called atypical pneumonias. C. Slowly, a sore throat progresses to bronchitis and then pneumonia and respiratory complications. D. It appears like the ordinary flu, but baffled doctors find that the usual drugs don't work.

(A) ABCD
(B) BDAC
(C) ADCB
(D) BCDA

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36. Arrange the sentences A, B, C and D in a proper sequence so as to make a coherent paragraph. A. Chemists mostly don't stock it: only a few government hospitals do but in limited quantities. B. Delhi's

building boom is creating a bizarre problem: snakes are increasingly biting people as they emerge from their disturbed underground homes. C. There isn't enough anti-snake serum, largely because there is no centralised agency that distributes the product. D. If things don't improve, more people could face paralysis, and even death.

(A) BCAD
(B) DBCA
(C) ABCD
(D) CABD

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37. Arrange the sentences A, B, C and D in a proper sequence so as to make a coherent paragraph. A. But the last decade has witnessed greater voting and political participation by various privileged sections. B. If one goes by the earlier record of mid-term elections, it is likely that the turnout in 1998 will drop by anything between four and six percentage points over the already low polling of 58 per cent in 1996. C. If this trend offsets the mid-term poll fatigue, the fall may not be so steep. D. Notwithstanding a good deal of speculation on this issue, it is still not clear as to who benefits from a lower turnout.

(A) BACD
(B) ABCD
(C) DBAC
(D) CBDA

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38. Arrange the sentences A, B, C and D in a proper sequence so as to make a coherent paragraph. A. After several routine elections there comes a 'critical' election which redefines the basic pattern of political loyalties, redraws political geography and opens up political space. B. In psephological 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

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39. Arrange the sentences A, B, C and D in a proper sequence so as to make a coherent paragraph. 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 for whom all roads lead to Rome, or in this case, 10 Janpath.

(A) ABDC
(B) ABCD
(C) DCBA
(D) CDBA

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

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41. Arrange the sentences A, B, C and D in a proper sequence so as to make a coherent paragraph. A. Almost a century ago, when the father of the modern automobile industry, Henry Ford, sold the first Model T 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 90 years, this philosophy has endured in the Ford Motor Company. D. Thus, a vehicle is ready for the customer only if it passes the Ford 'Zero Defect Programme'.

(A) ABCD
(B) ACDB
(C) ACBD
(D) CDAB

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

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43. Arrange the sentences A, B, C and D in a proper sequence so as to make a coherent paragraph. A. I sat there frowning at the checkered 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

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

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45. Three of the words are related to in some way. Select the word that does not fit in the relation.

(A) Keen
(B) Kin
(C) Enthusiastic
(D) Willing

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46. Three of the words are related to in some way. Select the word that does not fit in the relation.

(A) Adept
(B) Adapt
(C) Skilful
(D) Proficient

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47. Three of the words are related to in some way. Select the word that does not fit in the relation.

(A) Ring
(B) Round
(C) Bell
(D) Circle

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48. Three of the words are related to in some way. Select the word that does not fit in the relation.

(A) Computer
(B) Internet
(C) Grid
(D) Network

49. Three of the words are related to in some way. Select the word that does not fit in the relation.

(A) Suffer
(B) Endure
(C) Bear
(D) Withstand

50. Three of the words are related to in some way. Select the word that does not fit in the relation.

(A) Break
(B) Hiatus
(C) Chasm
(D) Bridge

Questions 51 to 60

I think that it would be wrong to ask whether 50 years of India's Independence are an achievement or a failure. It would be better to see things as evolving. It's not an either-or question. My idea of the history of India is slightly contrary to the Indian idea.

India is a country that, in the north, outside Rajasthan, was ravaged and intellectually destroyed to a large extent by the invasions that began in about AD 1000 by forces and religions that India had no means of understanding.

The invasions are in all the schoolbooks. But I don't think that people understand that every invasion, every war, every campaign, was accompanied by slaughter, a slaughter always of the most talented people in the country. So these wars, apart from everything else led to a tremendous intellectual depletion of the country.

I think that in the British period, and in the 50 years after the British period, there has been a kind of regrouping or recovery, a very slow revival of energy and intellect. This isn't an idea that goes with the vision of the grandeur of old India and all that sort of rubbish. That idea is a great simplification and it occurs because it is intellectually, philosophically easier for Indians to manage.

What they cannot manage, and what they have not yet come to terms with, is that ravaging of all the north of India by various conquerors. That was ruined not by the act of nature, but by the hand of man. It is so painful that few Indians have begun to deal with it. It is much easier to deal with British imperialism. That is a familiar topic, in India and Britain. What is much less familiar is the ravaging of India before the British.

What happened from AD 1000 onwards, really, is such a wound that it is almost impossible to face. Certain wounds are so bad that they can't be written about. You deal with that kind of pain by hiding from it. You retreat from reality. I do not think, for example, that the Incas of Peru or the native people of Mexico have ever got over their defeat by the Spaniards. In both places the head was cut off. I think the pre-British ravaging of India was as bad as that.

In the place of knowledge of history, you have various fantasies about the village republic and the Old Glory. There is one big fantasy that Indians have always found solace in: about India having the capacity for absorbing its conquerors. This is not so. India was laid low by its conquerors.

I feel the past 150 years have been years of every kind of growth. I see the British period and what has continued after that as one period. In that time, there has been a very slow intellectual recruitment. I think every Indian should make the pilgrimage to the site of the capital of the Vijayanagar empire, just to see what the invasion of India led to. They will see a totally destroyed town. Religious wars are like that. People who see that might understand what the centuries of slaughter and plunder meant. War isn't a game. When you lost that kind of war, your town was destroyed, the people who built the towns were destroyed. You are left with a headless population.

That's where modern India starts from. The Vijayanagar capital was destroyed in 1565. It is only now that the surrounding region has begun to revive. A great chance has been given to India to start up again, and I feel it has started up again. The questions about whether 50 years of India since Independence have been a failure or an achievement are not the questions to ask. In fact, I think India is developing quite marvelously, people thought — even Mr Nehru thought — that development and new institutions in a place like Bihar, for instance, would immediately lead to beauty. But it doesn't happen like that. When a country as ravaged as India, with all its layers of cruelty, begins

to extend justice to people lower down, it's a very messy business. It's not beautiful, it's extremely messy. And that's what you have now, all these small politicians with small reputations and small parties. But this is part of growth, this is part of development. You must remember that these people, and the people they represent, have never had rights before.

When the oppressed have the power to assert themselves, they will behave badly. It will need a couple of generations of security, and knowledge of institutions, and the knowledge that you can trust institutions — it will take at least a couple of generations before people in that situation begin to behave well. People in India have known only tyranny. The very idea of liberty is a new idea. The rulers were tyrants. The tyrants were foreigners. And they were proud of being foreign. There's a story that anybody could run and pull a bell and the emperor would appear at his window and give justice. This is a child's idea of history — the slave's idea of the ruler's mercy. When the people at the bottom discover that they hold justice in their own hands, the earth moves a little. You have to expect these earth movements in India. It will be like this for a hundred years. But it is the only way. It's painful and messy and primitive and petty, but it's better that it should begin. It has to begin. If we were to rule people according to what we think fit, that takes us back to the past when people had no voices. With self-awareness all else follows. People begin to make new demands on their leaders, their fellows, on themselves.

They ask for more in everything. They have a higher idea of human possibilities. They are not content with what they did before or what their fathers did before. They want to move. That is marvellous. That is as it should be. I think that within every kind of disorder now in India there is a larger positive movement. But the future will be fairly chaotic. Politics will have to be at the level of the people now. People like Nehru were colonial — style politicians. They were to a large extent created and protected by the colonial order. They did not begin with the people. Politicians now have to begin with the people. They cannot be too far above the level of the people. They are very much part of the people. It is important that self-criticism does not stop. The mind has to work, the mind has to be active, there has to be an exercise of the mind. I think it's almost a definition of a living country that it looks at itself, analyses itself at all times. Only countries that have ceased to live can say it's all wonderful.

51. The central thrust of the passage is that

(A) India is gearing up for a new awakening.

(B) India is going back to its past status.

(C) India is yet to understand itself.

(D) India's glorious past is a figment of the imagination.

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52. The writer's attitude is

(A) excessively critical of India.

(B) insightful.

(C) cynical.

(D) cold.

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53. The writer has given the example of the Vijayanagar kingdom in order to drive home the point that

(A) Indians should know their historical sites.

(B) Indians should be aware of the existence of such a historic past.

(C) it is time that India came to terms with the past.

(D) All of these

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54. The writer is against

(A) the child's view of history.
(B) taking a critical stand on history.
(C) indulging in the details of the past.
(D) None of these

55. According to the writer, India's regeneration and revival took place

(A) in the British period.
(B) after the British period.
(C) during and after the British period.
(D) a long time after the British left.

56. According to the passage, self-awareness is followed by

(A) self-righteousness.
(B) a higher idea of human possibilities.
(C) a desire for more in everything.
(D) Both b and c

57. According to the passage, India's current situation is

(A) bleak.
(B) horrific.
(C) primitive and messy.
(D) None of these

58. For a country to be alive and progressive, it is important that

(A) self-criticism does not stop.
(B) self-criticism does not exceed a certain limit.
(C) it feels that all is right with itself.
(D) None of these

59. The writer's prognosis for India's future is that

(A) it will be stable.
(B) it will be chaotic.
(C) it will reflect the manipulations of the present.
(D) it will give way to self-criticism.

60. One of the main features of the tyranny of foreign rulers was

(A) the decimation of the country's artists.
(B) the decimation of the country's wealth.
(C) the decimation of the country's talented people.
(D) All of these

Questions 61 to 70

When talks come 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 fledging, 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 World War II. 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 were 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 inexcisable 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, but 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 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 a 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 longer 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 Ltd. make it possible for Indian businesses to operate only at a cost several times that of their counterparts abroad. The infrastructure is in 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 change 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 realises 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) ironical.
(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 non-existent.
(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 domestic market.
(C) foreign exchange bankruptcy and paucity of funds with the government.
(D) All of these

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 these

66. India was in a better condition than the other Asian nations because

(A) it did not face the ravages of the World War II.
(B) it had an English speaking populace and good business sense.
(C) it had enough wealth through its exports.
(D) Both a) and b)

67. The major reason for India's poor performance is

(A) economic isolationism.
(B) economic mismanagement.
(C) inefficient industry.
(D) All of these

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 creditability in the international market.

(D) India's disrepute in the international market.

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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 these

Questions 71 to 80

When Deng Xiaoping died a few months ago, the Chinese leadership barely paused for a moment before getting on with the business of governing the country. Contrast that with the chaotic contortions on India's political stage during the past month, and it is easy to conclude that democracy and democratic freedoms are serious obstacles to economic progress.

When the Chinese leadership wants a power plant to be set up, it just goes ahead. No fears of protracted litigation, of environmental protests, or of lobbying by interested parties. It — or the economy — is not held to ransom by striking truckers or air traffic controllers. Certainly, there is much that is alluring about an enlightened dictatorship.

But there the trouble begins. First, there is no guarantee that a dictatorship will be an enlightened one. Myanmar has been ruled by a dictator for decades, and no one would claim that it is better off than even Bangladesh which has itself suffered long stretches of dictatorship. Nor can Mobuto Sese Seko, much in the news these days, be described as enlightened by any reckoning. The people of Israel, almost the only democracy in a region where dictatorships (unenlightened ones) are the norm, are much better off than their neighbours.

Second, dictatorships can easily reverse policies. China was socialist as long as Mao Zedong was around. When Deng Xiaoping took over in what was essentially a palace coup, he took the country in the opposite direction. There is little to ensure that the process will not be repeated. In India such drastic reversals are unlikely.

Six years ago Indian politicians agreed that industries should be de-licensed, that imports should be freed or that investment decisions should be based on economic considerations. Now few think otherwise. Almost all politicians are convinced of the merits of liberalisation though they may occasionally lose sight of the big picture in pandering to their constituencies. India has moved slower than China on liberalisation, but whatever moves it has made are more permanent.

Democracies are also less likely to get embroiled in destructive wars. Had Saddam Hussain been under the obligation of facing free elections every five years, he would have thought ten times before entangling his people in a long confrontation with the West. Germany, Italy and Japan were all dictatorships when they launched the World War II. The price was paid by the economies. Democracies make many small mistakes. But dictatorships are more susceptible to making huge ones and risking everything on one decision — like going to war. Democracies are the political equivalent of free markets, Companies know they can't fool the consumer too often; he will simply switch to the competition. The same goes for political parties. When they fail to live up to their promises in government,

the political consumer opts for the competition.

Democratic freedoms too are important for the economy, especially now that information is supreme. Few doubt that the Internet will play an important part in the global economy in the decades to come. But China, by preventing free access to it, is already probably destroying its capabilities in this area. As service industries grow in importance, China may well be at a disadvantage though that may not be apparent today when its manufacturing juggernaut is rolling ahead.

India has stifled its entrepreneurs through its licensing policies. That was an example of how the absence of economic freedom can harm a country. But right-wing dictatorships like South Korea erred in the opposite direction. They forced their businesses to invest in industries, which they (the dictators) felt had a golden future. Now many of those firms are trying to retreat from those investments. Statism is bad, no matter what the direction in which it applies pressure. At this moment, China and other dictatorships may be making foolish investment decisions. But as industries are subsidized and contrary voices not heard, the errors will not be realised until the investments assume gargantuan proportions.

India's hesitant ways may seem inferior to China's confident moves. But at least we know what the costs are. That is not the case with China. It was only years after the Great Leap Forward and only such experiments that the cost in human lives (millions of them) became evident to the world. What the cost of China's present experiments is we may not know for several years more. A nine per cent rate of growth repeated year after year may seem compelling. But a seven per cent rate of growth that will not falter is more desirable. India seems to be on such a growth curve, whatever the shenanigans of our politicians.

71. According to the passage,

(A) India needs a benevolent dictatorship.
(B) India has failed as a democracy.
(C) India should go the way of China.
(D) None of these

72. The passage says that

(A) benevolent dictators are not easy to find.
(B) not all dictators will be enlightened.
(C) dictators can make or break a country.
(D) an enlightened dictatorship is better than a corrupt democracy.

73. It can be implied from the passage that

(A) a lower rate of growth is preferred to a higher rate of growth.
(B) a higher rate of growth is preferred to a lower rate of growth.
(C) a low but stable rate of growth is preferred to a high rate of growth.
(D) a low but faltering rate of growth is a sign of stability amidst growth.

74. Vis-a-vis democracies, dictatorships run the risk of

(A) losing all for a single mistake.
(B) making bigger mistakes.
(C) making huge mistakes and risking everything.
(D) None of these

75. The writer's conclusion in the passage is that

(A) under no circumstances should a country encourage a corrupt democrat.

(B) under no circumstances should statism be a welcome move.

(C) a statist will not give due importance to the voice of the people.

(D) a statist will always look to his own welfare.

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76. Democracy has been compared to the free market, as

(A) both have a high degree of competition.

(B) both offer a multitude of options to choose from.

(C) consumer satisfaction plays an important role in both.

(D) All of these

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77. It can be inferred from the passage that

(A) China stands to lose out in the global market because it has blocked the Internet.

(B) India stands to gain in the global market because of its policy vis-a-vis the Internet.

(C) Internet will play a crucial role in the global market in the years to come.

(D) All of these

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78. According to the passage, a democratic set up works as a check on the

(A) actions and decisions of its leaders.

(B) functioning of its economy.

(C) Both a and b

(D) None of these

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79. India's moves on liberalisation are more permanent than China's because

(A) India's politicians are in agreement over the need for reforms.

(B) India is not at the mercy of dictators.

(C) unlike China, India is unlikely to have drastic policy reversals.

(D) India is not in a hurry to reform

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80. According to the passage,

(A) Israel is the only democracy in West Asia.

(B) Israel is better off than Bangladesh or Myanmar.

(C) Israel does not face policy reversals.

(D) None of these

Questions 81 to 90

Of each of the great leaders, it is said by his followers, long after he is gone, he made us do it. If leadership is the art of persuading your people to follow your bidding, without their realising 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 six 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 practices of inter alia awarding stock options to its employees, putting the value of its intellectual assets and its brands on its balancesheet, 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 wealthcreation- 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 practised 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 fleetfooted human resource management system that treats employees as customers, using the resources of the organisation to meet their professional and personal needs. His instruments are not just top-of-themarket 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 genre — 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 Infoscions.

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' balancesheet, 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 already. By 2000, he wants the number to climb to 1000.

To act as a beacon for his version of the learning organisation, Murthy not only spends an hour a day surfing 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 per cent 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 synthesised 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 onto 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 Infoscion pay taxes and file returns: and a perpetually open office into which anyone can walk.

But even as he tries to lead Infosys into cloning his 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

(A) by awarding stock options.

(B) by giving an extravagant bonus at the end of each year.

(C) Both a and b

(D) None of these

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82. According to the passage, at Infosys

(A) control is exerted through a system of hierarchy.

(B) control is not exerted through a system of hierarchy.

(C) hierarchy does not have pride of place.

(D) popular opinion is the most respected voice.

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83. Murthy believes in

(A) betterment of man through learning.

(B) betterment of man through ethical creation of wealth.

(C) betterment of man through experimentation.

(D) All of these

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84. The example of the Rs. 15 crore account highlights

(A) Murthy's ability to see his company through a crisis.

(B) Murthy's ability to turn failure into success.

(C) Murthy's potential to handle a crisis.

(D) All of these

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85. According to Murthy, learning is

(A) the essence of a employee.

(B) the art of amassing data.

(C) a process that helps him to learn from failure.

(D) All of these

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86. According to the passage,

(A) Infosys could not have succeeded without working backward.

(B) Infosys succeeded because it worked backwards.

(C) working backwards contributed to Infosys' success.

(D) working backwards is a hallmark of Infosys' functioning today.

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87. Openness at Infosys includes

(A) the payment of taxes.

(B) giving complete information.

(C) sharing secrets.

(D) Both a and b

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88. It is evident from the passage that

(A) Infosys will have to devise new strategies to meet the challenges of the 21st century.

(B) Infosys will stagnate if it does not become aggressive.

(C) Infosys may have to become more aggressive in order to retain its market.

(D) None of these

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89. The cornerstone of Murthy's human resource management system is

(A) the employee as God.

(B) optimum utilization of human potential.

(C) customer satisfaction.

(D) satisfaction of employees' personal and professional needs.

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90. According to the passage,

(A) Infosys is a reflection of its CEO.

(B) Infosys brings the best out in Murthy.

(C) Infosys and Murthy are synonymous.

(D) Murthy, the man, and Murthy the CEO are incompatible.

Questions 91 to 100

Last fortnight, news of a significant development was tucked away in the inside pages of newspapers. The government finally tabled a bill in Parliament seeking to make primary education a fundamental right. A fortnight earlier, a Delhi-based newspaper had carried a report about a three-month interruption in the Delhi Government's 'Education for All' programme. The report made for distressing reading. It said that literacy centres across the city were closed down, volunteers beaten up and enrolment registers burnt. All because the state government had, earlier this year, made participation in the programme mandatory for teachers in government schools. The routine denials were issued and there probably was a wee bit of exaggeration in the report.

But it still is a pointer to the enormity of the task at hand. That economic development will be inherently unstable unless it is built on a solid base of education, specially primary education, has been said so often that it is in danger of becoming a platitude. Nor does India's abysmal record in the field need much reiteration. Nearly 30 million children in the six to ten age group do not go to school — reason enough to make primary education not only compulsory but a fundamental right. But is that the Explanation? More importantly, will it work? Or will it remain a mere token, like the laws providing for compulsory primary education? It is now widely known that 14 states and four Union Territories have this law on their statute books.

Believe it or not, the list actually includes Bihar, Madhya Pradesh (MP) and Rajasthan, where literacy and education levels are miles below the national average. A number of states have not even notified the compulsory education law. This is not to belittle the decision to make education a fundamental right. As a statement of political will, a commitment by the decision-makers, its importance cannot be undervalued. Once this commitment is clear, a lot of other things like resource allocation will naturally fall into place. But the task of universalizing elementary education (UEE) is complicated by various socio-economic and cultural factors which vary from region to region and within regions. If India's record continues to appall, it is because these intricacies have not been adequately understood by the planners and administrators.

The trouble has been that education policy has been designed by grizzled mandarins ensconced in Delhi and is totally out of touch with the ground reality. The key then is to decentralise education planning and implementation. What's also needed is greater community involvement in the whole process. Only then can school timings be adjusted for convenience, school children given a curriculum they can relate to and teachers made accountable. For proof, one has only to look at the success of the district primary education programme, which was launched in 1994. It has met with a fair degree of success in the 122 districts it covers. Here the village community is involved in all aspects of education — allocating finances to supervising teachers to fixing school timings and developing curriculum and textbooks — through district planning teams. Teachers are also involved in the planning and implementation process and are given small grants to develop teaching and learning material, vastly improving motivational levels. The consequent improvement in the quality of education generates increased demand for education.

But for this demand to be generated, quality will first have to be improved. In MP, the village panchayats are responsible for not only constructing and maintaining primary schools but also managing scholarships, besides organising non-formal education. How well this works in practice remains to be seen (though the department claims the schemes are working very well) but the decision to empower panchayats with such powers is itself a significant development. Unfortunately, the Panchayat Raj Act has not been notified in many states.

After all, delegating powers to the panchayats is not looked upon too kindly by vested interests. More specifically, by politicians, since decentralisation of education administration takes away from

them the power of transfer, which they use to grant favours and build up a support base. But if the political leadership can push through the bill to make education a fundamental right, it should also be able to persuade the states to implement the laws on Panchayat Raj. For, UEE cannot be achieved without decentralisation. Of course, this will have to be accompanied by proper supervision and adequate training of those involved in the administration of education. But the devolution of powers to the local bodies has to come first.

91. One of the problems plaguing the education system in India is

(A) poverty.
(B) diverse cultural and socio-economic factors.
(C) male chauvinism.
(D) All of these

92. In the context of the passage, the term 'grizzled mandarins' means

(A) old hags.
(B) decrepit men.
(C) ineffective old men.
(D) None of these

93. One of the reasons contributing to India's poor performance on the education front is that

(A) its leaders do not have the conviction required to improve the education system.
(B) male members of society do not want their female counterparts to be educated.
(C) administrators in charge of education are out of touch with ground realities.
(D) the country does not have the law for implementation of education policies in its statute books.

94. The only way in which the education system can be improved is by

(A) decentralising education planning and implementation.
(B) introducing fresh blood in the planning body.
(C) injecting funds into the exchequer solely for the purpose.
(D) educating the people on the need for primary education.

95. Very low education levels are visible in

(A) Bihar, Rajasthan and Uttar Pradesh.
(B) Rajasthan, West Bengal and Madhya Pradesh.
(C) Rajasthan, Bihar and Madhya Pradesh.
(D) West Bengal, Uttar Pradesh and Bihar.

96. The district primary education programme

(A) was launched in 1994 in 22 states.
(B) was launched in 1994 in 12 states.
(C) launched in 1994 has been successful in 122 districts.
(D) launched in 1994 has met with dubious success.

97. The village panchayats in Madhya Pradesh are responsible for

(A) implementing adult education policies for the villages.
(B) organising non-formal education.

(C) scholarships and construction and maintenance of primary schools.

(D) Both b and c

98. The successful implementation of education policies is obstructed by

(A) vested interests.

(B) panchayat officials.

(C) politicians.

(D) bureaucrats.

99. Primary education

(A) is a fundamental right.

(B) will be made a fundamental right.

(C) is only for the privileged sections of society.

(D) None of these

100. One of the ways in which education policy can be successfully implemented as mentioned in the passage, is

(A) greater community involvement.

(B) greater community development.

(C) greater community awareness.

(D) Both (a) and (b)

Questions 101 to 103

A certain race is made up of three stretches: A, B and C, each 2 km long, and to be covered by a certain mode of transport. The following table gives these modes of transport for the stretches, and the minimum and maximum possible speeds (in km/hr) over these stretches. The speed over a particular stretch is assumed to be constant. The previous record for the race is 10 min.

		MIN.	MAX.
A	CAR	40	60
B	MOTOR-CYCLE	30	50
C	BICYCLE	10	20

101. Anshuman travels at minimum speed by car over A and completes stretch B at the fastest speed. At what speed should he cover stretch C in order to break the previous record?

(A) Maximum speed for C
(B) Minimum speed for C
(C) This is not possible
(D) None of these

102. Mr Hare completes the first stretch at the minimum speed and takes the same time for stretch B. He takes 50% more time than the previous record to complete the race. What is Mr Hare's speed for the stretch C?

(A) 10.9 km/hr
(B) 13.3 km/hr
(C) 17.1 km/hr
(D) None of these

103. Mr Tortoise completes the race at an average speed of 20 km/hr. His average speed for the first two stretches is four times that for the last stretch. Find the speed over stretch C.

(A) 15 km/hr
(B) 12 km/hr
(C) 10 km/hr
(D) This is not possible

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?

(A) More than the average weight of A
(B) More than the average weight of C
(C) Less than the average weight of C
(D) Cannot be determined

105. If one student from group A is shifted to group B, which of the following will be true?

(A) The average weight of both groups increases
(B) The average weight of both the groups decreases

(C) The average weight of the class remains the same

(D) Cannot be determined

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106. If all the students of the class have the same weight, then which of the following is false?

(A) The average weight of all the four groups is the same

(B) The total weight of A and C is twice the total weight of B

(C) The average weight of D is greater than the average weight of A

(D) The average weight of all the groups remains the same even if a number of students are shifted from one group to another

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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 subject has the same maximum marks, in how many subjects did he pass the examination?

(A) 2

(B) 3

(C) 4

(D) 5

---

108. In how many ways can eight directors, the vice chairman and chairman of a firm be seated at a round table, if the chairman has to sit between the the vice chairman and a specific director?

(A) $9! \times 2$

(B) $2 \times 8!$

(C) $2 \times 7!$

(D) None of these

---

109. If $\log_2 \log_7 (x^2 - x + 37) = 1$, then what could be the value of 'x'?

(A) 3

(B) 5

(C) 4

(D) None of these

---

110. After allowing a discount of 11.11%, a trader still makes a gain of 14.28%. At how many percentage above the cost price does he mark on his goods?

(A) 28.56%

(B) 35%

(C) 22.22%

(D) None of these

---

111. If n is an integer, how many values of n will give an integral value of $\frac{(16n^2 + 7n + 6)}{n}$?

(A) 2

(B) 3

(C) 4

(D) None of these

---

112. A dealer buys dry fruits at Rs. 100, Rs. 80 and Rs. 60 per kilogram. He mixes them in the ratio 3 : 4 : 5 by weight, and sells at a profit of 50%. At what price per kilogram does he sell the dry fruits?

(A) Rs. 80

(B) Rs. 100

(C) Rs. 95

(D) None of these

---

113. Fresh grapes contain 90% water while dry grapes contain 20% water. What is the weight of dry grapes obtained from 20 kg fresh grapes?

(A) 2 kg
(B) 2.5 kg
(C) 2.4 kg
(D) 10 kg

---

114. An express train travelling at 80 km/hr overtakes a goods train, twice as long and going at 40 km/hr on a parallel track, in 54 s. How long will the express train take to cross a platform of 400 m long?

(A) 36 s
(B) 45 s
(C) 27 s
(D) None of these

---

115. A student instead of finding the value of 7/8 of a number, found the value of 7/18 of the number. If his answer differed from the actual one by 770, find the number.

(A) 1584
(B) 2520
(C) 1728
(D) 1656

---

116. P and Q are two positive integers such that PQ = 64. Which of the following cannot be the value of P + Q?

(A) 20
(B) 65
(C) 16
(D) 35

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117. The average marks of a student in 10 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 are the roots 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) $x_1 = -5$ and $x_2 = 3$
(C) $x_1 = 4.5$ and $x_2 = -2.5$
(D) None of these

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119. The sum of the areas of two circles, which touch each other externally, is 153π. 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 divisible by 5
(B) m^2 - n^2 is divisible by 25
(C) m + n is divisible by 10
(D) None of these

---

121. Which of the following is true?

(A) $7^{(3^2)} = (7^3)^2$
(B) $7^{(3^2)} > (7^3)^2$
(C) $7^{(3^2)} < (7^3)^2$
(D) None of these

Questions 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 percentage of people who can watch all the three channels?

(A) 12.5%
(B) 8.5%
(C) 15%
(D) Data insufficient

123. If 5% of people watched DD and CNN, 10% watched DD and BBC, then what percentage of people watched BBC and CNN only?

(A) 2%
(B) 5%
(C) 8.5%
(D) Cannot be determined

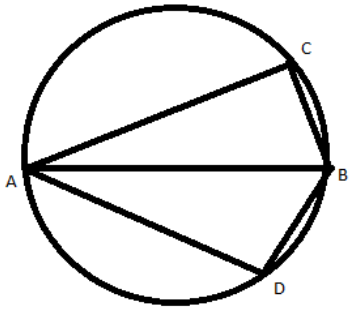
124. Referring to the previous question, what percentage of people watched all the three channels?

(A) 3.5%
(B) 0%
(C) 8.5%
(D) Cannot be determined

125. A man earns x% on the first Rs. 2,000 and y% on the rest of his income. If he earns Rs. 700 from income of Rs. 4,000 and Rs. 900 from Rs. 5,000 of income, find x%.

(A) 20%
(B) 15%
(C) 25%
(D) 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.

(A) 54sq. cm
(B) 216sq. cm
(C) 162sq. cm
(D) None of these

127. P, Q and R are three consecutive odd numbers in ascending order. If the value of three times P is 3 less than two times R, find the value of R.

(A) 5
(B) 7
(C) 9
(D) 11

Questions 128 to 130

For these questions the following functions have been defined.

$la(x, y, z) = min(x + y, y + z)$
$le(x, y, z) = max(x - y, y - z)$
$ma(x, y, z) = \frac{1}{2}(le(x, y, z) + la(x, y, z))$

128. Given that $x > y > z > 0$. Which of the following is necessarily true?

(A) $la(x, y, z) < le(x, y, z)$
(B) $ma(x, y, z) < la(x, y, z)$
(C) $ma(x, y, z) < le(x, y, z)$
(D) None of these

129. What is the value of ma(10, 4, le((la10, 5, 3), 5, 3))?

(A) 7
(B) 6.5
(C) 8
(D) 7.5

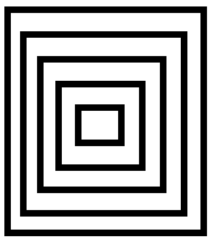
130. For x=15, y=10 and z=9 , find the value of le(x, min(y, x-z), le(9, 8, ma(x, y, z)).

(A) 5
(B) 12
(C) 9
(D) 4

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?

(A) 9
(B) 7
(C) 4
(D) 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 squares, counting from the innermost square.



(A) 10√2 sq. units
(B) 30 sq. units
(C) 35√2 sq. units
(D) None of these

133. A, B and C are defined as follows. A=$(2.000004) \div ((2.000004)^2 + 4.000008)$; B = $(3.000003) \div ((3.000003)^2 + 9.000009)$ C= $(4.000002) \div ((4.000002)^2 + 8.000004)$ Which of the following is true about the values of the above three expressions?

(A) All of them lie between 0.18 and 0.2

(B) A is twice of C

(C) C is the smallest

(D) B is the smallest

---

134. The value of each of a set of 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 diameter of two coins are in the ratio 4 : 3, what should be the ratio of their thickness' be if the value of the first is four times that of the second?

(A) 16 : 9

(B) 9 : 4

(C) 9 : 16

(D) 4 : 9

---

135. In ABC, points P, Q and R are the mid-points of sides AB, BC and CA respectively. If area of ABC is 20 sq. units, find the area of PQR.

(A) 10 sq. units

(B) 5√3 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

Questions 137 to 138

The Weirdo Holiday Resort follows a particular system of holidays for its employees. People are given holidays on the days where the first letter of the day of the week is the same as the first letter of their names. All employees work at the same rate.

137. Raja starts working on February 25(Sunday), 1996, and finishes the job on March 2, 1996. How much time would T and J take to finish the same job if both start on the same day as Raja?

(A) 4 days

(B) 5 days

(C) Either a or b

(D) Cannot be determined

---

138. Starting on February 25, 1996 (Sunday), if Raja had finished his job on April 2, 1996, when would T and S together likely to have completed the job, had they started on the same day as Raja?

(A) March 15, 1996

(B) March 14, 1996

(C) March 22, 1996

(D) Data insufficient

Questions 139 to 141

Boston is 4 hr ahead of Frankfurt and 2 hr behind India. X leaves Frankfurt at 6 p.m. on Friday and reaches Boston the next day. After waiting there for 2 hr, he leaves exactly at noon and reaches India at 1 a.m. On his return journey, he takes the same route as before, but halts at Boston for 1hr less than his previous halt there. He then proceeds to Frankfurt.

139. If his journey, including stoppage, is covered at an average speed of 180 mph during the journey from Frankfurt to India, what is the distance between Frankfurt and India?

(A) 3,600 miles
(B) 4,500 miles
(C) 5,580 miles
(D) Data insufficient

---

140. If X had started the return journey from India at 2.55 a.m. on the same day that he reached there, after how much time would he reach Frankfurt?

(A) 24 hr
(B) 25 hr
(C) 26 hr
(D) Data insufficient

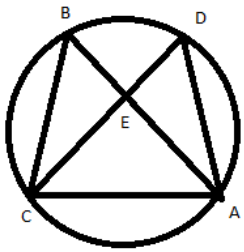
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141. What is X's average speed for the entire journey (to and fro)?

(A) 176 mph
(B) 180 mph
(C) 165 mph
(D) Data insufficient

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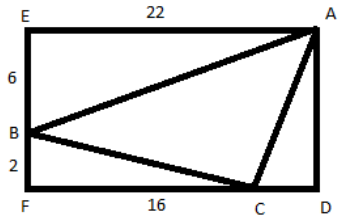
142. In the adjoining figure, points A, B, C and D lie on the circle. AD = 24 and BC = 12. What is the ratio of the area of CBE to that of ADE?



(A) 1 : 4
(B) 1 : 2
(C) 1 : 3
(D) Data insufficient

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143. In the given figure, EADF is a rectangle and ABC is a triangle whose vertices lie on the sides of EADF and 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 2
(B) 5
(C) 3.5
(D) None of these

Questions 144 to 145

A thief, after committing the burglary, started fleeing at 12 noon, at a speed of 60 km/hr. He was then chased by a policeman X. X started the chase, 15 min after the thief had started, at a speed of 65 km/hr.

144. At what time did X catch the thief?

(A) 3.30 p.m.
(B) 3 p.m.
(C) 3.15 p.m.
(D) None of these

145. If another policeman had started the same chase along with X, but at a speed of 60 km/hr, then how far behind was he when X caught the thief?

(A) 18.75 km
(B) 15 km
(C) 21 km
(D) 37.5 km

146. What is the value of $a^3 + b^3$? I. $a^2 + b^2 = 22$ II. $ab = 3$

(A) The question can be answered with the help of one statement alone.

(B) The question can be answered with the help of any one statement independently.

(C) The question can be answered with the help of both statements together.

(D) The question cannot be answered even with the help of both statements together.

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147. Is the number completely divisible by 99? I. The number is divisible by 9 and 11 simultaneously. II. If the digits of the number are reversed, the number is divisible by 9 and 11.

(A) The question can be answered with the help of one statement alone.

(B) The question can be answered with the help of any one statement independently.

(C) The question can be answered with the help of both statements together.

(D) The question cannot be answered even with the help of both statements together.

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148. A person is walking from Mali to Pali, which lies to its north-east. What is the distance between Mali and Pali? I. When the person has covered $\frac{1}{3}$ the distance, he is 3 km east and 1 km north of Mali. II. When the person has covered $\frac{2}{3}$ the distance, he is 6 km east and 2 km north of Mali.

(A) The question can be answered with the help of one statement alone.

(B) The question can be answered with the help of any one statement independently.

(C) The question can be answered with the help of both statements together.

(D) The question cannot be answered even with the help of both statements together.

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149. What is the value of x and y? I. $3x + 2y = 45$ II. $10.5x + 7y = 157.5$

(A) The question can be answered with the help of one statement alone.

(B) The question can be answered with the help of any one statement independently.

(C) The question can be answered with the help of both statements together.

(D) The question cannot be answered even with the help of both statements together.

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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? I. P says that he can see one black hat and one white hat. II. Q says that he can see one white hat and one black hat.

(A) The question can be answered with the help of one statement alone.

(B) The question can be answered with the help of any one statement independently.

(C) The question can be answered with the help of both statements together.

(D) The question cannot be answered even with the help of both statements together.

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151. What is the speed of the car? I. The speed of a car is 10 (km/hr) more than that of a motorcycle. II. The motorcycle takes 2 hr more than the car to cover 100 km.

(A) The question can be answered with the help of one statement alone.

(B) The question can be answered with the help of any one statement independently.

(C) The question can be answered with the help of both statements together.

(D) The question cannot be answered even with the help of both statements together.

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152. What is the ratio of the volume of the given right circular cone to the one obtained from it? I. The smaller cone is obtained by passing a plane parallel to the base and dividing the original height in the ratio 1 : 2. II. The height and the base of the new cone are one-third those of the original cone.

(A) The question can be answered with the help of one statement alone.

(B) The question can be answered with the help of any one statement independently.

(C) The question can be answered with the help of both statements together.

(D) The question cannot be answered even with the help of both statements together.

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153. What is the area bounded by the two lines and the coordinate axes in the first quadrant? I. The lines intersect at a point which also lies on the lines $3x - 4y = 1$ and $7x - 8y = 5$. II. The lines are perpendicular, and one of them intersects the Y-axis at an intercept of 4.

(A) The question can be answered with the help of one statement alone.

(B) The question can be answered with the help of any one statement independently.

(C) The question can be answered with the help of both statements together.

(D) The question cannot be answered even with the help of both statements together.

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154. What is the cost price of the chair? I. The chair and the table are sold at profits of 15% and 20% respectively. II. 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) The question can be answered with the help of one statement alone.

(B) The question can be answered with the help of any one statement independently.

(C) The question can be answered with the help of both statements together.

(D) The question cannot be answered even with the help of both statements together.

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155. After what time will the two persons Tez and Gati meet while moving around the circular track? Both of them start at the same point and at the same time. I. Tez moves at a constant speed of 5 m/s, while Gati starts at a speed of 2 m/s and increases his speed by 0.5 m/s at the end of every second thereafter. II. Gati can complete one entire lap in exactly 10 s.

(A) The question can be answered with the help of one statement alone.

(B) The question can be answered with the help of any one statement independently.

(C) The question can be answered with the help of both statements together.

(D) The question cannot be answered even with the help of both statements together.

Questions 156 to 160

The following table gives the number of rooms in different hotels in Mumbai and the cost of building each one of them. Note that all the projects started in 1997

Project	No. of rooms	Cost (Rs. In crore)	Year of Completion	Company
Windsor Manor	600	275	1999	IHCL
Leela Hotels	310	235	1999	Leela Hotels
Mumbai Heights	250	250	1998	Bombay Hotels
Royal Holidays	536	225	1998	Lokhandwala Groups
Majestic Holiday	500	250	1999	Raheja Group
Supremo Hotel	300	300	1999	ITC
Hyatt Regency	500	250	2000	Asian Hotels

Note: All projects start in 1997.

156. Which of the following had the least cost per room?

(A) Lokhandwala Group
(B) Raheja Group
(C) IHCL
(D) ITC

157. Which of the following has the maximum number of rooms per crore of rupees?

(A) IHCL
(B) Raheja Group
(C) Lokhandwala Group
(D) ITC

158. Assume that the cost of the project is incurred in the year of completion; interest is charged at the rate of 10% per annum. What is the cost incurred for projects completed in 1998?

(A) Rs. 475 crore
(B) Rs. 500 crore
(C) Rs. 522.5 crore
(D) Rs. 502.5 crore

159. Assume that the cost of the project is incurred in the year of completion; interest is charged at the rate of 10% per annum. What is the cost incurred for projects completed in 1999?

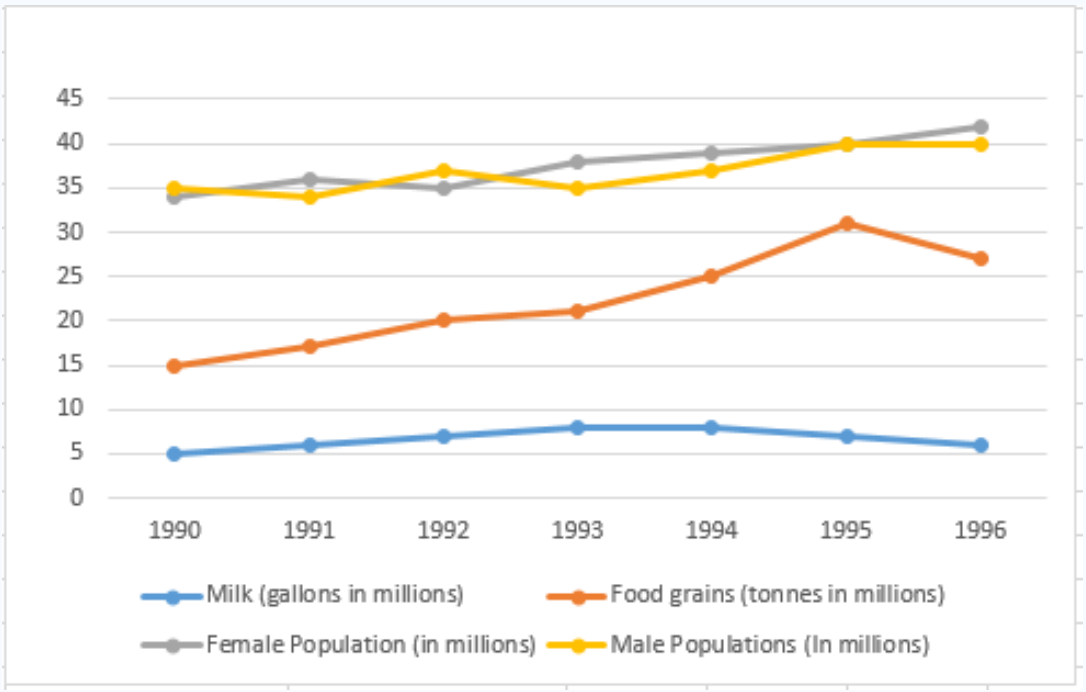
(A) Rs. 1,282.6 crore
(B) Rs. 1,270 crore
(C) Rs. 1,805.1 crore
(D) Rs. 1,535 crore

160. What is the approximate cost incurred for projects completed by 2000? (in crores)

(A) 1,785
(B) 2,140
(C) 2,320
(D) None of these

Questions 161 to 166

The graph given below shows the quantity of milk and food grains consumed annually along with female and male population (in millions). Use the data to answer the questions that follow.



161. When was the percapita consumption of milk the least?

(A) 1990 (B) 1992

(C) 1994 (D) 1996

162. When was the per capita production of foodgrains most?

(A) 1992 (B) 1993

(C) 1994 (D) 1995

163. Referring to the previous question, in which year was the per capita consumption of this nutrient highest?

(A) 1993 (B) 1994

(C) 1995 (D) 1996

164. In which year was the difference between the percentage increase in the production of food grains and milk maximum?

(A) 1993 (B) 1994

(C) 1995 (D) 1996

165. If milk contains 320 calories and foodgrains contain 160 calories, in which year was the per capita consumption of calories highest?

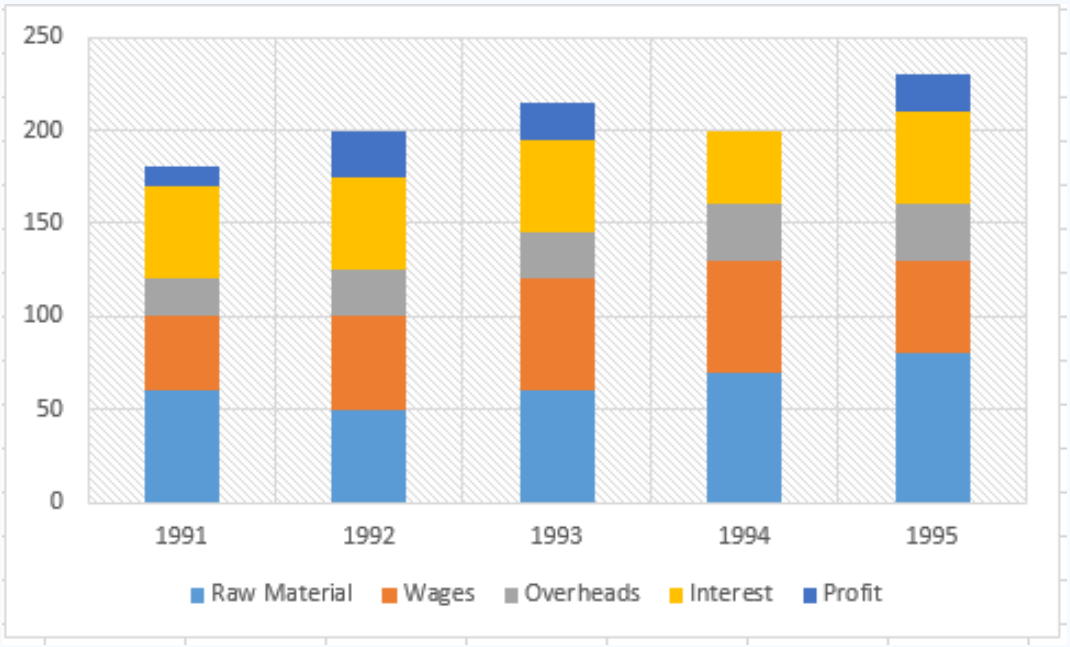
(A) 1993
(B) 1994
(C) 1995
(D) 1996

166. If one gallon milk contains 120 g of a particular nutrient and one tonne of foodgrains contains 80 g of the same nutrient, in which year was the availability of this nutrient maximum?

(A) 1993
(B) 1994
(C) 1995
(D) 1996

Questions 167 to 172

The graph given below gives the yearly details of money invested in producing a certain product over the years 1991 to 1995. It also gives the profit (in '000 rupees).



167. In which year was the increase in raw material maximum?

(A) 1992
(B) 1993
(C) 1994
(D) 1995

168. In which period was the decrease in profit maximum (as a percentage)?

(A) 1991-92
(B) 1992-93
(C) 1993-94
(D) 1994-95

169. Which component of the cost production has remained more or less constant over the period?

(A) Interest
(B) Overheads
(C) Wages
(D) Raw material

170. In which year were the overheads, as a percentage of the raw material, maximum?

(A) 1995
(B) 1994
(C) 1992
(D) 1993

171. What percentage of the costs did the profits form over the period?

(A) 3%
(B) 5%
(C) 8%
(D) 11%

172. If the interest component is not included in the total cost calculation, which year would show the maximum profit per unit cost?

(A) 1991
(B) 1992
(C) 1993
(D) 1995

Questions 173 to 177

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

	Region 1		Region 2		Region 3		Region 4		Region 5	
	P/kWh	%	P/kWh	% incr.	P/kWh	%incr.	P/kWh	% incr.	P/kWh	% incr.
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

(A) increased by 6.5%
(B) decreased by 3.5%
(C) increased by 10.2%
(D) decreased by 7.3%

174. What was the approximate average tariff in sector 3 in 1991-92?

(A) 407
(B) 420
(C) 429
(D) None of these

175. In 1994-95, if there was 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?

(A) 1,312 megawatts
(B) 1,422 megawatts
(C) 1,750 megawatts
(D) Cannot be deterrmined

176. In the given 2 years, what is the total tariff paid by the urban sector?

(A) Rs. 22.4 lakh
(B) Rs. 21.6 lakh
(C) Rs. 27.2 lakh
(D) Cannot be determined

177. Which of the following statements is true?

(A) The average tariff in region 4 is 437.5 p/kWh

(B) The average tariff in region 2 is greater than the average tariff in region 5

(C) In 1991-92, the industrial sector contributed to about 42% of the total revenue from power

(D) None of these

Questions 178 to 185

The table given below gives the annual details of loans from rural banks and agricultural loans over the years 1970 to 1983. Using this data answer the questions that follow.

Year	Loan from Rural			Agricultural Loans		
	No. of rural banks	Avg. no. of loans	Average size (in Rs.)	No. ('000)	Value (Rs. In millions)	Consumer Price Index
1970	90	28	109	18.3	2	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, the amount of agricultural loans formed what percentage of the total loans?

(A) 85%

(B) 71%

(C) 77%

(D) Cannot be determined

179. From the given data, the number of rural loans up to 1980 formed approximately what percentage of those in 1983?

(A) 112%

(B) 80%

(C) 97%

(D) Cannot be determined

180. Which of the following pairs of years showed the maximum increase in the number of rural bank loans?

(A) 1971-72

(B) 1974-75

(C) 1970-71

(D) 1980-81

181. What is the value(in millions) of the agricultural loans in 1983 at 1970 prices?

(A) Rs. 326

(B) Rs. 264

(C) Rs. 305

(D) None of these

182. In which year was the number of rural bank loans per rural bank least?

(A) 1974

(B) 1971

(C) 1970

(D) 1975

183. What is the simple annual rate of increase in the number of agricultural loans from 1970 to 1983?

(A) 132%
(B) 81%
(C) 75%
(D) 1056%

---

184. If the consumer price index for 1970 is to be taken as 105 and the indices for the subsequent years are to be corrected accordingly, by roughly how many points do the indices for 1983 and 1975 differ?

(A) 174
(B) 180
(C) 188
(D) 195

---

185. If the consumer price index for 1970 is to be taken as 105 and the indices for the subsequent years are to be corrected accordingly, what is the approximate value of the agricultural loans in 1980 at 1983 prices?

(A) Rs. 570 million
(B) Rs. 680 million
(C) Rs. 525 million
(D) Rs. 440 million

- End of Question Paper -
