

Section – I

Direction for questions 1 to 40: Read each of the following passages carefully and answer the questions that follow.

Passage – 1

The Internet celebrated its 30th anniversary in September 1999. Thirty years ago, physicists linked four universities in California and Utah through a special kind of network laying the foundation for what is today the global Internet. But the Internet's real breakthrough occurred 20 years later, when the global standard of the World Wide Web made the Internet accessible to a wider audience. Today, global communication is unthinkable without the abbreviation WWW. The American Arpanet Project (Advanced Research Projects Agency), which oversaw the initial linking of universities in September 1969, started as a research programme conducted by the US Department of Defence.

Today IT has come to play a cardinal role in almost every branch of human activity; education, health services, the railways, civil aviation, banking, defence services and a wide range of other sectors. The long wait at the reservation counters for a train journey has been lessened; the passbooks are updated in a short time. Major textile showrooms, supermarkets and offices finish their work faster; all aspects of business transactions, including maintenance of stocks and inventories, billing and labelling, financial accounting, purchases, etc., are looked after by the computers.

Professionals like chartered accountants discover the computers as a godsend just because they do a wide range of accounting, from making journal entries to preparation of balance sheets. Desktop publishing has virtually revolutionized the publishing industry in India.

The entire world is fast moving towards e-commerce and e-business. By 2008, India would contribute nearly 4 to 5 per cent of the total e-commerce business, says Mr Jayakrishna, Secretary, Union Department of Information Technology. According to Mr Jayakrishna, the software production in India is worth \$6.5 billion, of which India's export was at \$3 billion which is not even 1 per cent of the world market. The world software market is estimated to touch \$1.3 trillion within two to three years. It is possible that India could exploit the situation and become software superpower by increasing its share to a great extent.

Andhra Pradesh, under the dynamic leadership of Mr Chandrababu Naidu, has shown the way as to how best IT could be used to provide a clean and efficient administration. The CEO of Andhra Pradesh, convinced that IT could make the government both efficient and transparent, is now sending his officials back to school to make them computer literate. Here is a chief minister determined to scrap outdated governmental procedures that only serve to harass the common man. Officials in the state are attending short-term and long-term courses in computer technology. According to Mr Naidu, IT would bring accountability, efficiency and transparency in administration. To cite an example, with the computerization of the registration department, now property registration just takes an hour, a big leap forward from the bleak scenario in the past that took weeks to process registration.

On November 1, 1999, Andhra Pradesh embarked on an era of electronic governance with the commissioning of the Andhra Pradesh State Wide Area Network (APSWAN), a backbone network for voice, data and video communications that links the State Secretariat with 23 district headquarters and Vijayawada and Tirupati,

using 2 mbps fibre optic link provided by the Department of Telecommunication (DoT). The first of its kind in the country, the APSWAN was commissioned in a record five months time by United Telecom Ltd.

At the National Conference on Electronic Governance held during the first week of November 1999 in Bangalore, emphasis was laid on the decentralization of information system allowing local-level participation to provide a 'bottom-up' rather than a 'top down approach'. The Union Government has already got down to the task of ushering in electronic governance, enabling trade and industry to operate through e-commerce. The Centre has already issued guidelines that 2 to 3 per cent of every ministry or department's plan budget should be utilized for the promotion of IT.

Many of the state governments, like those of Madhya Pradesh, West Bengal, Tamil Nadu and Kerala, are putting IT to the best possible use for streamlining at least a few sectors of government. Madhya Pradesh plans to have all statistical data relevant to the seat of government right down to the panchayats at the ready disposal of the chief minister. The transnational consultants, PriceWaterhouse Coopers (PWC) is helping the state to develop a suitable software package in this regard. A similar package is also being developed in West Bengal too. With a grant from the Central Government, the Tamil Nadu government is in the process of computerising the existing book-based data on revenue/field maps. A software package which can convert the existing paper-based revenue/field maps into a database of the computerization process. The process will enable the revenue authorities from the headquarters down to the district level to keep track of details, such as landownership or changes in ownership through transfer or division. Kerala is spending Rs. 17.44 crore for computerization of treasuries in the state.

Any kind of technology can be considered useful only if it benefits the largest number of people. It is here that IT could reach all or that its benefits could reach all. Towards this end, both the Central Government and several state governments have taken positive steps. In his foreword to the World Development Report 1999, Mr James D. Wolfenson, the President of the World Bank has said: "In our enthusiasm for the information superhighway, we must not forget the villages and slums without telephones, electricity or safe water, or the primary schools without pencils, paper or books. For the poor, the promise of the Information age-knowledge for all can seem as remote as a distant star. To bring that promise closer to reality, the implications of the information revolution must be thought through with care and made part of the development agenda." It is a happy augury that both the Centre and the states are trying their best to serve the objectives outlined by the World Bank chief.

1. Which of the following aspects IT has helped Andhra Pradesh to develop?
 - a. Aid business houses
 - b. Property registration
 - c. Educating government officials
 - d. None of these
2. According to the passage IT has a role in each of these sectors except
 - a. health and education.
 - b. railways.
 - c. defence and civil aviation.
 - d. consultancy.
3. The author feels that
 - a. providing basic amenities to the poor is as important as IT development.
 - b. IT sector is growing at 23 per cent in India every year.
 - c. technology can benefit only a small part of society.
 - d. Both (a) and (b).

4. The new Central guidelines state that
- Tamil Nadu is computerizing field maps.
 - around 2 per cent of department plan to be used for IT promotion.
 - Kerala is spending Rs. 17.44 crore to computerize treasury.
 - None of these
5. India is set out to be the next IT superpower because of all except
- governance.
 - Central Government assistance.
 - state government initiative.
 - Mr Azim Premji.
6. Which state government is not putting IT to the best use?
- Madhya Pradesh
 - West Bengal
 - Maharashtra
 - Kerala
7. What is the role of a software package?
- Converting language into a package
 - Converting revenue into a database
 - Converting paper-based revenue records into an accurate database
 - None of these
8. Bangalore became famous in November 1999 for
- Mr James D. Wolfenson's visit.
 - Conference on Electronic Governance.
 - Mr Chandrababu Naidu's speech on IT.
 - None of these

Passage – 2

Success in the world is increasingly defined by business success or what is fashionably called 'competitiveness'. This is also true in India after the economic reforms. As our nation's attention increasingly turns to business in the new century, it is important, I think, to understand what makes a business succeed and how to overcome our traditional weaknesses. Indian business has historically been insensitive to consumers; hence, our goods and services have been shoddy. It has been technologically backward and lacked innovation. And we are not cohesive as people and this makes us poor team players.

Oddly enough, I learned the most valuable lessons about effectiveness in business from Kamble, our security guard at Richardson Hindustan. One evening around 7:30, as I was leaving office, Kamble asked me to check the envelope on his desk. He did not think it was addressed properly and the courier would be there any minute to collect it. He was right. In fact, it was an important tape that our marketing people wanted to rush to the television studios for airing the following day. We quickly telephoned the advertising agency, corrected the address, and repaired the damage.

As I drove home, I recalled that this was not the first time that Kamble had saved the situation. He had come to us four years ago as a 'temporary guard' and quietly became indispensable. First, he had learnt to operate the telephone switchboard on his own initiative. Next, he had learnt to use our complicated

photocopying machine. Then, he began to send faxes. Finally, he became expert in fixing a number of things. He knew who was staying late, who was travelling, how to reach anyone's home. It had got so that if anything was needed after hours, our reaction was, 'Where is Kamble?'

When our telephone operator went on maternity leave, Kamble offered to take her place for six weeks. We soon discovered that our telephone service had improved dramatically. Our business associates asked what had happened. For years, they had complained that our phones would keep ringing, and they had resigned themselves to a long wait. Now, to their surprise, our telephones were being answered on the second ring. I asked Kamble. "Well, there might be a customer at the other end," he replied, "and we might lose an order." Kamble was too perceptive not to know that our business did not generally come over the telephone, but it was his attitude that mattered.

I asked myself how we could get all our employees to act like Kamble, How could we get everyone in the company to answer their telephones as though there was a customer at the other end? This is the challenge before all managers. How does one get ordinary employees to care for the business as though they are owners, and do extraordinary things? The trouble is that most employees do not see customers when they come to work in the morning. They only see other employees. They see directors, middle managers, junior executives, secretaries, office boys, but they get busy in office politics. Directors get absorbed in building empires; middle managers spend their time comparing the size of their office with their peers; junior executives are concerned with locating their name on the office memos to gauge whether they are rising or falling in the office hierarchy.

The irony is that a company makes all its money outside the company — when the customer buys a product but the employees spend all their time inside, usually arguing over turf.

The answer was clear — we had to take our employees closer to our customers. This might also help to give more meaning to their work. At the next management committee I suggested to our senior managers that all our 900 employees ought to spend two days a year in the bazaar, meeting ten consumers and retailers, and write a report offering their suggestions. The committee responded enthusiastically and we decided to implement the idea. A year later we discovered that less than a quarter of the people had actually gone to the market. From those who had gone, we got some suggestions on how to improve our products, our work processes and our behaviour. However, among the majority there was great lethargy to break the office routine. The following year we made the visit to the bazaar mandatory — the personnel department withheld salary increments unless it received a copy of 'the bazaar report'. Thus, market visits became an annual habit. Once they got to the bazaar, I think most people liked it. They understood why we were in business, and the company got some good suggestions in return.

Kamble was a product of the absence of rigid rules in our small company. The more rules there are, the less people will do on their own, and the more effort they will spend in getting around the rules. Most organizations — whether companies, hospitals, schools, NGOs — operate on the basis that an employee will do something wrong, given half a chance. I have always believed the opposite. The ordinary person will generally do the right thing, left to his or her own devices. The important thing is that people believe that only results will win them rewards. Our personnel department, however, was suspicious of people and it constantly tried to make rules. I, on the other hand, liked ambiguity. Kamble had succeeded precisely

because no one knew where his job started and where it ended. If only results matter, then I think ordinary employees will surprise managers by doing extraordinary things.

It is important not to direct people too much and let them find their way. It might bring out their creative urges. This is not to say that one abdicates responsibility to train employees. A manager must train his subordinates all the time, and with a passion. But he or she must refrain from controlling them. The best thing a manager can do is to provide clear, ambitious objectives, and monitor the work of his subordinates against these objectives. If one trusts people, and makes them feel trusted, they will respond. People behave according to the way they are treated. Unfortunately, I was unable to get our head of personnel to share in my beliefs and we had to part.

Although Richardson Hindustan had become a high-performance company in India by the mid-1980s, its parent, Richardson Vicks Inc. (RVI) was faltering around the world. It, thus, became a plum target for takeover. In 1985, Unilever, the Anglo-Dutch consumer products giant, made a hostile bid to acquire RVI. However, it did not succeed and Procter & Gamble came to the rescue as a 'white knight' and acquired RVI. Senior managers at RVI made fortunes on their stock options (as the bidding war doubled the stock price). However, the average RVI employee around the world was plunged in gloom. Rightly so, because the vast majority of RVI people lost their jobs in the next twenty-four months. We in India, however, were delighted by the merger. Suddenly, we had access to a large stable of leading brands. We also knew that we were good and P&G needed us in order to enter the large Indian market.

The next few years were exciting as we transitioned to a new business culture. We acquired three important capabilities from P&G. The first was a passion for product superiority. We had heard of P&G's awesome capabilities in marketing, but we did not know that this soapmaker was obsessed with technology. One could not even begin a discussion about introducing a new market unless one had any showing that the new product was rated significantly superior by consumers. P&G was a highly databased company and it had worked out clear, actionable standards for what constituted product superiority. It had a thousand PhDs in its laboratories working on improving its products constantly, and business managers had learned how to harness the power of these scientists to meet these standards.

A passion for recruiting and training outstanding youngsters from colleges was the second thing we learnt from P&G. The secret of its success lay in making operating managers responsible for this activity, rather than personnel managers. Each senior manager was assigned to a college, usually his or her own alma mater, and they were appraised each year on their recruiting results. In fact, the passion was inculcated from the day that a person joined the company because he was the constant recipient of 'on the job training'. Most companies evaluate a manager's performance on business results. At P&G, a manager's performance appraisal consisted of two short paragraphs — the first paragraph evaluated business results and the second 'people results', or the manager's capability in building the organization.

Third, P&G taught us to write its legendary one-page memo. I was proud of my writing skill and at first, I was cynical. But I discovered to my surprise that there was an art to writing a memo on a single page. We learnt to state the purpose and the conclusion of the memo in the first paragraph. Hence, P&G memos began with, 'This recommends that' The second paragraph offered background. The third discussed the alternative solutions that the writer had considered. The fourth discussed the financial impact. And the

fifth paragraph described the next steps (usually a time and events schedule). Whether one proposed an investment of \$100 million or \$1,000, one wrote the same basic memo.

Thereby, younger managers learnt to think logically and it saved senior managers (who always suffer from a paper overload) a great deal of time. It is a humbling experience for the high-flying MBAs from Harvard and Wharton to spend the first week at P&G learning to write clear English.

9. The passage is about
 - a. the principles of marketing.
 - b. the real practice of marketing.
 - c. simple facts of business effectiveness.
 - d. the story of Richardson Hindustan.
10. According to the author,
 - a. India has a tradition of hospitality and customer orientation.
 - b. India has been lacking in innovativeness as a country.
 - c. India has a tradition of apathy and insensitivity towards customers.
 - d. Both (b) and (c)
11. According to the author, Kamble is
 - a. an example of how good people are undervalued in their companies for indefinite lengths of time.
 - b. a model to be emulated.
 - c. someone who wants to be an executive.
 - d. an example of how ambition can motivate people to do great work.
12. The author believes that
 - a. in larger companies, there should be more rules to ensure that employees do the tasks they are supposed to do.
 - b. initiatives should take the place of rules in carrying out tasks by employees.
 - c. companies should be ambiguous and indulgent.
 - d. employees should be trained, not controlled.
13. Which of the following is not one of the new capabilities acquired by RVI from P&G?
 - a. How to write a good memo
 - b. Recruiting and training outstanding youngsters
 - c. A passion for product superiority
 - d. Financial impact of evaluation of decisions
14. The author could not implement his ideas at Richardson Hindustan beyond a point because
 - a. the employees were not responsive enough to his new ideas.
 - b. there were not enough people in the company who shared his beliefs.
 - c. Richardson Hindustan meanwhile was taken over by Proctor & Gamble.
 - d. he could not get his head of personnel department to share his beliefs and they had to part.
15. The author's tone as regards his effectiveness in Richardson Hindustan is
 - a. excited.
 - b. depressing.
 - c. insecure.
 - d. mild reporting.

16. The author is definitely
a. an MBA b. a good manager c. a systems manager d. None of these

Passage – 3

Although management's effectiveness may be what drives the service sector's productivity, we are still a long way from seeing improvements in the sector at the level of the macroeconomy. That is not only because of the sector's size but also, and more important, because it can be notoriously difficult to manage. One way to appreciate this complexity is to compare the management's challenges in the service sector with those in the manufacturing sector.

The first important difference between the two sectors is that services encompass a much wider range of activities than traditional manufacturing does. Economists and many managers have tried to treat service as an undifferentiated amalgam. However, although medical care, investment management, retail distribution, private education, telecommunications, dry cleaning and cheque processing may all be service activities, they present very different productivity challenges.

A necessary first step for managers is to identify the distinct activities performed in their companies and deal with each in an appropriately tailored way. An approach that has been fruitful in our research is to distinguish among transaction processing activities like data processing, which with appropriate technology, can be effectively organized into large, highly automated work environments, distribution activities (wholesale and retail) that involve local interconnected operations with significant economies of scale; small scale, dispersed manufacturing like activities (such as dry cleaning and hamburger making); and higher level activities that involve direct human interaction and superior analytical capabilities (such as medical care, investment banking, and law). Because the productivity improvement strategies appropriate to each type of activity are quite different, it is essential to identify these separate functions — which often are embedded in the same company if progress is to be made in improving productivity.

The second difference between the sectors is that service jobs are inherently multifunctional in ways that manufacturing jobs often are not. The role of fast food workers is an obvious case in point. Their responsibilities often include production (making the fast food), retail service (delivery to customers), customer service (making sure that customers have an enjoyable experience), and transaction processing (accepting payment and making change). Under some circumstances, it also may involve stock management and simple building maintenance. Measuring, monitoring, and improving an individual's performance are therefore complex tasks. As a result, efforts at improving organizational performance require careful attention to what employees actually do and how their activities could be streamlined. This complexity can thwart efforts to improve efficiency because employees resistant to change often claim that changes will impair their ability to do their work.

To address this level of complexity, managers need to consider a full range of management practices. Best practice analysis within an organization with many similar units (as is often the case in services) can be a good start for managers because efficient units provide useful information about management techniques and performance targets. At the same time, comparisons across organizations can help companies avoid repeating past mistakes. Process analysis too, is often a useful tool because it can uncover ways in which

service workers can interact with customers. The continual analysis and feedback of quality management techniques ensure that the full range of critical functions continue to be improved. Our studies indicate that the proper application of this set of tools can yield enormous performance gains in services just as they have in manufacturing.

Third, whereas manufacturing capacity can be spread out across time through physical inventory, service capacity is relatively fixed and cannot rely on inventory to store capacity. Compared with manufacturing, service operations are more rigid involving a basic level of capacity that must be set in anticipation of demand (for example, the number of phone lines, switches, or stores). Furthermore, it is difficult to tell at times whether a service business has the appropriate amount of capacity, since there are no 'stockouts' or inventory accumulations to use as gauges. Therefore, service sector managers who want to improve productivity not only must maximize capacity utilization but also must struggle to determine just what that capacity needs to be.

Consider the differences in workforce planning in the two sectors. In manufacturing, excess capacity leads to an accumulation of inventory, which in turn leads to temporary or, if necessary, permanent lay-offs. In the longer run, new hiring often stops automatically, as laid-off workers wait to fill their old jobs. In services, because operations are spread out, signs of excess capacity are more subtle, and staffing adjustments are more convulsive and uneven. During slowdowns in business, service companies react in one of two ways: They eliminate work without laying off the corresponding workers and hence are left with excess staff. Or, in frustration at not having achieved projected workforce reductions. They eliminate both jobs and employees without ensuring that the people who go correspond closely to the work that is being eliminated. As a result many of the workers continue on as consultants or contract employees, defeating the original objectives.

Careful workforce planning is much more important for productivity improvement in services than it is in manufacturing. Such planning must be a part of any re-engineering, quality management, or other technique-driven approach to performance improvement. It also should be noted that this type of planning can reduce or eliminate the likelihood of the kinds of careless lay-offs that have received so much negative press of late.

Fourth, the nature of competition differs in the two sectors. Manufacturing output is transportable, and economies of scale are either global or nonexistent. Competition among manufacturers is correspondingly global, and that has important consequences. Manufacturing companies do not enjoy local niches sheltered from the full force of foreign competition. In the 1970s, the weaknesses in US manufacturing were ruthlessly exposed, and weak companies were threatened with extinction. That was perhaps the greatest single factor in the US manufacturing revival. Efficiency gains at individual companies were rapidly translated into gains in the industry and the overall economy.

The situation is in marked contrast to that in the service industries, where competition is predominantly local. Services are usually not transportable — think of hospitals, restaurant and stores — and some larger service organizations (such as WalMart Stores and Target in discount retailing) have achieved economies of scale that ensure protected local market positions. The local nature of many service businesses diminishes the invigorating force of competition and may cause efficiency gains at the company level to dissipate at industrywide and economywide levels. For example, improved retail efficiency will not always translate into

lower prices or higher quality at the local level. Instead, such improvements may simply spur entry by new competitors with access to the operating efficiencies involved. Their entry, in turn, may not cut down prices or improve the quality of service; instead, it may divide the existing sales in the market more finely among local competitors. Fixed costs are then spread out over a smaller sales base at each company, which largely offsets the original efficiency gains. Thus, at the industry level there may be little consequent productivity gain.

17. The inherent difference in manufacturing and service planning is
 - a. perennial excessive unemployed staff in the former.
 - b. perennial excessive unemployed staff in the latter.
 - c. productivity advancement is significant for the latter.
 - d. projected profits are incongruous to the actual in the former.
18. What could be the appropriate title for the passage?
 - a. *Exploitation of Capabilities to its Maximum*
 - b. *Understanding the Service Business and Challenges*
 - c. *Improvement in the Service Sector*
 - d. *Some Recommendations for Service Management*
19. The author's professional inclination is obvious from the passage.
 - a. True
 - b. False
 - c. Indeterminate
 - d. None of these
20. The differentiating activities in service sector if dealt with separately can
 - a. encourage managers to perform badly.
 - b. demote productivity.
 - c. boost profits in the market.
 - d. improve management's adequacy.
21. The role of 'fast food' workers proves the basic point that
 - a. Employees may resist changes.
 - b. assembling of employees, work is required.
 - c. efficient customer relations and building reliability is crucial.
 - d. direction needs to be given to employees always.
22. Which of the following conclusions is/are true?
 - I. Service companies are generally local.
 - II. Production is at international competition level.
 - III. Workforce planning is different for the two sectors.
 - a. Only I
 - b. Only I and II
 - c. Only I and III
 - d. All of these
23. Following are the tools applicable for encouraging service performance except
 - a. a healthy interactive process between workers and consumers.
 - b. full analysis of useful techniques from proficient units.
 - c. a fixed annual productivity capacity should be reduced.
 - d. comparative analysis of various organizations.

24. Services differ from manufacturing in the sense that
- I. services are more multifunctional.
 - II. services can rely upon inventory.
 - III. access capacity is subtle in services.
 - IV. services are more broadbased.
- a. I, II and III b. I, III and IV c. Only IV d. All of these

Passage – 4

Around the turn of the century, a 'Western Renaissance' swept through California as the state's cultural institutions strove to equal those of the East. At the same time, however, the people of the west searched for their own distinct identity and unique artistic style; many struggled with the question, 'What does it mean to be a Californian?' During this period, the wealthy encouraged and promoted the arts. Many, like Phoebe Apperson and William Randolph Hearst, wanted to be a part of the area's self-definition. About the Hearsts, Robert C. Pavlik once wrote:

[They] were strong motivating forces behind a regional identity for California as expressed in its art and architecture. As world travellers, they had seen and experienced the great centres of civilization, and, like so many of their west-coast contemporaries, they were determined to create a great cultural centre on the state's golden shores. They believed California would be the inheritor and perpetuator of greatness, as Athens and Rome reincarnate.

The Hearst family, William Randolph in particular, played a significant role in the definition of the California Dream and 'the state's heritage and its future'.

When Hearst stated that he wanted 'to do something a little different' at San Simeon, he was not only referring to a building that 'reflects the dreams, values, and aspirations commonly held by the state's wealthy leaders at the turn of the century,' but also to Julia Morgan, the castle's unconventional architect. Her work for the Hearsts spanned her whole career and developed into a successful artist-patron relationship. Only a talented artisan like Morgan could realize Hearst's dream of moulding California into a 'new Eden'. Most likely, Morgan first met Phoebe Apperson Hearst while visiting Berkeley, where Mrs Hearst was particularly active in the lives of the women students. She offered constant support and often invited groups over to her house 'to talk, for tea parties and musicals, and for a chance to see her fabulous art collection'.

Several years later, Mrs Hearst and Maybeck met in Paris to discuss the progress of an international design competition for Berkeley's master plan. While in France, they stopped in to see Morgan, Maybeck's former student. Because of her interest in women's causes, Mrs Hearst understood Morgan's difficulties. She was impressed by Morgan's 'ambitious goals' and a strong bond formed between the two women. As one of 'Maybeck's boys', Morgan received a monthly stipend. Before leaving Paris, however, Mrs Hearst offered Morgan increased monetary support. In the following letter, Morgan declined:

"If I honestly felt that more money freedom would make my work better, I would be tempted to accept your offer — but I am sure that it has not been the physical work which has been or will be, hardest, for I am

used to it and am strong, but rather the months of striving against homesickness and the nervous strain of examinations.

Now that my brother is here and a place is won at the B.A., really now it seems the work ought to be a pleasure whether housekeeping or study.

Your kind words at the depot were so unexpected, so friendly, they gave and still give, more help than you can guess, and I will thank you for them always”.

When Morgan returned from Paris, this friendship was renewed. Soon after, she began her work at Berkeley where she aided John Galen Howard with the development of the campus. With Mrs Hearst's support, Morgan assisted with the design and detailing of the Hearst Memorial Mining Building. Although she was alone in the field as a woman, her talent and training quickly became apparent.

Mrs Hearst was pleased with Morgan's work and, in 1903, she was named assistant supervising architect for the Greek Theatre. It was while working on this project that Morgan first met William Randolph Hearst. In a rush to complete the reinforced concrete structure on time, Morgan hung banners over the incomplete sections for the dedication ceremony.

During the same period, Morgan assisted Maybeck in the building of Wyntoon, a vacation home for Mrs Hearst on the McCloud river near the Oregon border. When Maybeck's original structures burned down years later, Hearst hired Morgan to reconstruct the site.

Mrs Hearst continued to enjoy Morgan's architectural designs and began to commission her for works away from Berkeley. From 1903-1910, Morgan worked on her first major solo commission for the Hearst family, the Hacienda del Pozo de Verona (an old hunting lodge) in Pleasanton, California. Refurbished in the Spanish style, the original ranches were expanded into a social centre and a gathering place for Mrs Hearst's many charities. The luxurious Hacienda contained a music hall, a swimming pool, verandas, a sunken ballroom, stables and sports facilities and was richly decorated with European art.

A co-founder of many women's clubs, Mrs Hearst was known for her 'patriotic efforts [and] eagerness to support the new class of working women' and remained 'interested [in women's organizations] without ever being belligerent about it'. Providing important exposure and connections, she encouraged Morgan to design and construct buildings for these new organizations. This continual support led to commissions for Morgan to build the King's Daughters Home in Oakland, the YWCA Building at San Francisco's Panama Pacific International Exposition, and Asilomar, among others.

The two shared a close kinship. As one person comments in The Julia Morgan Architectural Project, 'Each enjoyed the exhilaration of working with the other's extraordinarily able mind'. Morgan was always thankful for Mrs Hearst's generosity, and in 1919, she expressed this 'affection and admiration' in a letter:

“So through it all is the thread of your kindness since those Paris days when you were so beautifully kind to a most painfully shy and homesick girl. My mother's and yours are the greatest 'faiths' put in me, and I hope you both know how I love and thank you for it.” Mrs Hearst's death a month later was a great loss for Morgan.

Despite the loss of his mother, William Randolph Hearst continued to support Morgan. Due to Morgan's long time connection with his family, it seemed only natural that Hearst should hire her for his many major building projects, the first of which was the Herald Examiner Building in Los Angeles, commissioned in 1915. This building was designed in the Mission Style and included the traditional arches, decorative iron, and plasterwork. Hearst remarked after the building was completed:

"Miss Morgan, the architect, commendably accomplished the task of constructing a building that is thoroughly practicable, for all newspaper demands and which, I am glad to note, combines with its efficient qualities those pleasing traits reminiscent of an architecture which is identified with the beautiful and romantic history of Los Angeles and of California. I think she has accomplished the result happily and effectively from all points of view."

Soon afterwards, Morgan and Hearst began work on the 'Enchanted Hill', a project that would last over 20 years and bring them both fame and exposure. Hearst adored the ranch on 'Camp Hill' near San Simeon, and in many ways, visiting the area was like coming home for him. Shortly after his mother's death, Hearst walked into Morgan's office and stated that:

Well, I'm a little tired of camping out on that campground up on the hillside . . . I want to build something a little bit more comfortable and I was in this old bookstore in Los Angeles the other day and I was looking over some of these 'bungalow sets'. The one that appealed to me most is this one . . . I know you won't think much of the title, but nonetheless, it does rather please me in its general lines. It is this one, the Swisso-Jappo-Bungalow'.

The project soon developed from a simple dwelling and grew into a magnificent complex which housed Hearst's extensive art collection. With great truth, Morgan herself once commented that, "I am building a museum at San Simeon. I am not building a residence".

25. 'What does it mean to be a Californian?' When this is asked, what is the author trying to say?
 - a. He is trying to tell the reader the merits of 'Western Resistance'.
 - b. The attempts of western people to search for their own distinct identity.
 - c. The idiosyncrasies of the wealthy people of the west.
 - d. None of these
26. Californians believe they would inherit greatness
 - a. having the best art and architecture.
 - b. being the greatest centre of civilization.
 - c. as Athens and Rome reincarnate.
 - d. the greatest determination and courage.
27. What is Hearst's dream, as per the author?
 - a. Moulding California into 'New Eden'
 - b. Making the golden sands of California immortal
 - c. To do 'something different'
 - d. To make California a city of talented artists

28. As assistant supervising architect for the Greek Theatre and in a rush to complete the reinforced concrete structure, Morgan,
 - a. disagreed with William Randolph Hearst on technical matters.
 - b. hung banners over incomplete sections for the dedication ceremony.
 - c. completed the Hearst Memorial Mining Building in record time.
 - d. managed to please Mrs Hearst.
29. Morgan's architectural designs were commissioned away from Berkley, and in 1903-1910 her first major solo commission
 - a. was for the Hearst family.
 - b. was Hacienda del Pozo de Verona, in a fishing village in Atlanta.
 - c. was a luxurious Hacienda in Italy.
 - d. was a swimming pool with see-through bottom.
30. Though Julia Morgan and Mrs Hearst enjoyed the exhilaration of working with each others' minds, Morgan thanked Mrs Hearst
 - a. by building the King's daughters' home.
 - b. by giving a huge bunch of flowers for her grave.
 - c. for her 'affection and admiration' by a letter.
 - d. by marrying her son, William Hearst.
31. When hired by William Hearst, Morgan commissioned her first project in 1915, which was
 - a. Mrs Hearst's burial building.
 - b. the Herald Examiner Building in Los Angles.
 - c. a memorial for Mrs Hearst in Paris.
 - d. the New York State Express building.
32. Of 'Enchanted Hill', the project by Morgan and Hearst, the part that Hearst adored most was
 - a. the designer hills called 'the meadow'.
 - b. the designer hills called 'exposure'.
 - c. the ranch on 'camp hill'.
 - d. the outhouse on the 'camp hill'.

Passage – 5

Love is no longer what it was. There are two types of women in the world today of whom there were very few in the past: the educated and the divorced. Every time new sorts of people emerge, they give a new direction to the passions. They may appear to continue to believe that love is mysterious, talking about falling in love uncontrollably, as though love never changes. However, in the past they have often taken apart the different elements of which love is composed and recombined them to suit themselves, twisting, adding, suppressing. Humans have been far less helpless in the face of passion than legend makes out. They have been able to introduce new meanings into it again and again, as surprisingly as they have transformed grain into bread and dumplings and millefeuille cakes.

Everybody knows that passionate love was given a new form by Germany's romantic poets, and before them by the knights and troubadours of France, who themselves transformed echoes of emotions refined by the Arab conquerors of Spain. But these changes do not point towards the same direction; the history of love is not a sweeping movement towards greater freedom, but an ebb and flow, a whirlpool, and long periods of calm. The contracepted westerners of today have many alternatives before them. It is surprising now that love is more highly valued than ever, that schools do not teach its history, its battles, the rise and

fall of its dominions, its diplomatic methods and rhetoric, and the hypocrisy of its economics. Perhaps sex education will prove to be the first lesson of a much longer syllabus.

The process of kneading passionate love into different shapes can be observed particularly well in the moonlight of *The Thousand and One Nights*, because the medieval Arabs were once the world's most sophisticated lovers.

In the Arabian desert, the Bedouin nomads, leading the simplest of lives, had no use for passionate love. In their songs of the sixth century, they saw it as sorcery, the work of djinns, with an effect like wine, a challenge to custom; and they mocked the husband who loved his wife too much. This is an attitude that has prevailed in most countries at one time or another; it is normal, because it is based on fear, and fear is normal. However, among the Bedouins, easy familiarity between the sexes was allowed, joking relationships were part of etiquette, men and women could say almost anything to each other. It was through this playfulness that the extraordinary idea developed that how people could love each other to the point of abandoning everything else. Occasionally joking between a local girl and a visiting stranger (to whom the Bedouin's tradition of hospitality allowed liberties which they denied themselves) challenged tribal loyalty. Humour, which was the safety valve of custom, went out of control, and the excitement of breaking rules, of taking risks, of an adventure into the unknown, of thinking one was right against the opinion of the whole world, preferring the mysterious to the familiar face, became a conspiracy of passion. "What between us two brought love, in the valley of Bagid?" asks a Bedouin song, and it answers that it was the joking insults the pair exchanged, the repartee which gradually broke down apparently impregnable truths. The foreigner could make customs look ridiculous. Attraction became explosive when ignited by fun. Ibn Hazm, the most famous Arab authority on love, said, "Of love, the first part is jesting and the last part right earnestness."

It was in Mecca and Medina, in the first century of the Muslim era (beginning in AD 622), that women introduced another ingredient into their feelings, creating new moods with music. That this happened at a time of upheaval, when people were losing their taste for old ways and were agitated by the new ones offered to them, was no accident. The cities were wealthy, devoted to pleasure and feasting, frantic to forget the dangers around them. Singers were 'omnipotent', like the pop stars of today. Rich women were expanding their traditional liberties, imposing conditions on their suitors before marriage, rejecting any suggestion that a wife should be like a slave. Sukayna, the granddaughter of Ali, the cousin of the Prophet, was one such free spirit, who neither wore the veil nor obeyed her husband, but organized literary and musical salons (the Arabic word was *majlis*, meaning a gathering of notables). Rich, young men flocked to them, to drink forbidden wine or the less objectionable fermented juice *nabid*, and to listen to poets and singers. Sukayna got the most famous singer, Umar b. Ali Rabia, to meet her and her friends at night in the desert, and they would talk till dawn, about feelings. His songs were after all about feelings. "Keep women far away from songs, because it is a summons to adultery," said a proverb. Umar gave his heart to several women at the same time, never sighing for the absent ones: "Ah, how many girlfriends I have had, whom I left without ever hating them, always valuing them." This was not exactly the passion these women had intended to create, and Umar's songs are full of their complaints; the attempt to make life more interesting also made it sadder. But courage invariably leads to unexpected results; that is what defines it, the willingness to meet the unexpected.

When only the music of the tambourine was approved of in religious feasts, these singers of Mecca and Medina now brought in from Persia the lute, ancestor of the guitar, and despite protests that it was a lascivious instrument, the husbands, busy with their own pleasures, did not interfere. It worked like a charm. The singers were 'youths of outstanding beauty', wearing their hair down to their shoulders, a sign that they drank; often freed slaves, with no tyrannical family loyalties, suspected of being the illegitimate children of noblemen, they were always in trouble with the authorities, but were regularly saved from punishment by their women admirers. Whereas the old songs were about war, these singers sang only about love, the women demanding lyrics in which they could recognize their own feelings. Exploring alternative loyalties between individuals, beyond those of tribe and family, was again accomplished with foreign aid. The importation of strange melodies protected this bold behaviour by wrapping it up in mystery. One famous singer, Ibn Muhriz, travelled to Persia to study its music and its tradition of refined love, of 'voluptuous contemplation', of tales which said that a sovereign is unworthy to reign if he does not know how to love; then he went to Syria to study Greek music, returning with sounds no one had ever heard before. There was enthusiasm for novelty in the cities, provided it was mixed with old Bedouin strains, like the irregular beat of the camel song. Foreign music was the second ingredient, after humour, in the restyling of passionate love, as it was to be many times again, as African and American music have been to our own philosophers, but through music. The musicians on either side of the Pyrenes understood each other, because a mood is more infectious than an idea. The word troubadour may come from the Arabic word *tarab*, meaning music.

33. 'Love is no longer what it was.' How does the author explain this?
 - a. He says that nowadays there are two types of women: the working ones and the non-working ones.
 - b. He says love has lost its meaning now with so many divorces prevalent.
 - c. He says every time new sorts of people emerge, they give new direction to passions.
 - d. The helplessness in face of passion has increased manifold, with the complications of society.
34. When speaking about passionate love being given a new form, the author mentions
 - a. Germany's romantic poets.
 - b. the Knights of France.
 - c. the Arab conquerors of Spain.
 - d. the contracepted westerners of today.
35. When the passage talks about 'hypocrisy of its economics', what is the author talking about?
 - a. Echoes of emotions
 - b. Love
 - c. Value schools
 - d. Schools imparting western values
36. Certain desert tribes had no use for passionate love. They saw it as the work of
 - a. djinns.
 - b. bedouin nomads.
 - c. ill effect of wine.
 - d. ill effect of familiarity between sexes.
37. Sukayna — one free spirit, and Umar b. Ali Rabia, had a relationship where
 - a. adultery was practised.
 - b. they together hosted many musical salons.
 - c. they would meet at night in the desert and talk till morning.
 - d. love and hate existed together, leading to sleepless nights.

38. Exploring alternative loyalties between individuals, beyond those of tribe and family,
 a. was accomplished with foreign aid.
 b. was accomplished with the help of the players of the lute.
 c. was accomplished forcefully by the women of nobility.
 d. was accomplished by application of humour to all situations.
39. A suitable title for the passage would be
 a. *Passion*.
 b. *Evolution of Love*.
 c. *Love and the Nomads*.
 d. None of these
40. The passage is
 a. argumentative. b. narrative. c. rhetorical. d. humorous.

Direction for questions 41 to 44: Fill in the blanks with the most appropriate choice.

41. ____ as the acquisition instinct takes over and becomes the prime mover of human conduct.
 a. The borderline between need and greed tend to get lucid
 b. The slender borderline between need and greed tends to get blurred
 c. The thin line between need and greed paints an abstract picture
 d. In-between need and greed there is a thin line
42. ____ there is always a risk of getting carried away by things superficial and evanescent and missing the reality.
 a. It is due to ambivalence
 b. What is purely external cannot have an eternal import,
 c. It is due to ignorance that
 d. It is only the knowledge of the ultimate truth that
43. During the past three decades, ____ has been developed as the forefront of science.
 a. a new language to help understand the complexity of living systems
 b. a new language to understand the complexity of living systems
 c. a new language for understanding the living system's complexity
 d. a new language for understanding the complexity of living systems
44. The need for a spiritual response to the multiple calamities of our times has become so obvious that it has even inspired a man like Tom Hayden, ____
 a. leader of the student protest movement in the 1960s and today, a progressive California legislator.
 b. a one-time leader of the student protest movement in the 1960s and today, a progressive California legislator.
 c. a leader of the student protest movement in the 1960s and a progressive California legislator today.
 d. who led the student protest movement in the 1960s and is a progressive California legislator today.

Direction for questions 45 to 49: In each of the following sentences, a part of the sentence is underlined. Beneath each sentence, four different ways of phrasing the underlined part are indicated. Choose the best alternative among the four.

45. No doubt, in a commercial sense the purpose of these activities is to gain a goodwill and a market, but the mode of achievement of this objective cannot be confined in the limited meaning attributes to the other word.
- to gain a goodwill and a market, but the mode of achievement of this objective cannot be confined in the limited meaning attributed to the other word.
 - to gain goodwill and a market but the mode of achieving this objective cannot be confined to the limited meaning attributed to the other word.
 - to gain a goodwill and a market, but the mode of achievement of this cannot be confined in the limited meaning attributed to the other word.
 - gaining a goodwill and markets, but the mode of achievement of this cannot be confined in the limited meaning attributed to the other word.
46. In what is seen as yet another major victory for India, a WTO dispute settlement panel has given ruling in India's favour in the case involving the imposition of definitive anti-dumping duties by the European commission on cotton bed linen exports from this country.
- In which is seen as another major victory for India, a WTO dispute settling panel has given a ruling in India's favour
 - In what is seen as another major victory for India, a WTO dispute settlement panel has given a ruling in India's favour
 - In that is seen as yet another major victory for India, a WTO disputes settlement panel has given a ruling in India's favour
 - That it is seen as yet another major victory in India, a WTO disputes settlement panel has given a ruling in India's favour
47. Adding to this the restoration of normalcy between the two largest democracies and the outcome is sure a historic achievement.
- Add to this the restoration of normalcy between the two largest democracies and the outcome is purely an historic achievement.
 - Add to this the restoration of normalcy between the two larger democracies and the outcome is surely an historic achievement.
 - Add to this the restoration of normalcy between the two largest democracies and the outcome is surely a historic achievement.
 - Adding to this, the restoration of normalcy between the two largest democracies and the outcome is purely an historic achievement.
48. A century ago, imperial China said to be home to 100 million drug users, languid addicts who filled opium dens and closed their eyes as their proud country ebbed into chaos and war.
- A century ago, imperial China said to be home to 100 million drug users,
 - A century ago, imperial China was said to be home to 100 million drug users,
 - A century ago, imperialist China said to be the home to the 100 million drug users,
 - A century ago, imperialistic China was said to be the home to the 100 million drug users,

49. Each rule in the manual had to be rewritten as marketers try to reinvent their pitch.
- Every rule in the manual was to be rewritten as marketer try to reinvent their pitch.
 - Every rule in the manual has to be rewritten as marketer try to reinvent their pitch.
 - Every rule in the manual had to be rewritten as marketer tried to reinvent their pitch.
 - Every rule in the manual has to be rewritten as the marketing tries to reinvent their pitch.

Direction for questions 50 to 59: Arrange the sentences A, B, C and D in a logical order so as to fit into a meaningful paragraph.

50. 1. When the cloned cow shyly nuzzled me, her nose was cold but her tongue was hot.
 A. But if you analysed the DNA in the slobber on my shirt, you'd think it had come from a single cow.
 B. They don't look the same; their black and white patches vary somewhat.
 C. These 17 curious creatures are the ultimate sisters — genetically identical copies.
 D. Emboldened, several other clones moved closer and joined in.
 a. ABCD b. DCBA c. CDBA d. CABD
51. 1. Actually, Satjiv and I realized that we had lots of things in common, so we hit it off.
 A. It has become less of a purely business thing.
 B. We are getting extremely creative, thinking about things.
 C. From then on, we started brainstorming.
 D. And now we have so many ideas that we are working on.
 a. ABCD b. CDAB c. DCBA d. BDCA
52. 1. In every eighth grade class, there is one kid who towers above all others.
 A. Six feet one and he wouldn't smile a basket if the hoop were twice regulation size.
 B. Flash forward a decade. How tall is the kid now?
 C. He is the lanky six-footer who makes the rest of us feel like trailers parked at the base of a skyscraper.
 D. Teachers, coaches and even parents predicted he will soon top seven feet, then he will be a champion.
 a. ABCD b. CDBA c. DCBA d. CADB
53. 1. Taekwondo might yet be in its nascent stage in India, but with its growing popularity evident by the large number of participants in the recent Junior Nationals held at Kanteerava Indoor Stadium; there is hope that some international stars would emerge.
 A. Taekwondo is to become a medal sport in the Olympics from Sydney 2000 Olympics onwards.
 B. At a Taekwondo Federation of India (TFI) meeting held during the Junior Nationals, it was approved that a junior scholarship scheme be made operational and that regional Taekwondo centres be established at prominent places in the country.
 C. These would be nurseries to provide a strong team for the Asian Games at Busan, Korea, in 2002 and progress to a team that could fare well at the 2004 Olympics.
 D. The focus is on grooming youngsters for the 2004 Olympics.
 a. DBAC b. ADBC c. ABDC d. ABCD
54. 1. There has been a lot of hype about e-commerce in the recent days.
 A. It is anticipated that globally e-commerce is expected to generate a revenue of \$1.3 trillion by transactions through the wired world.

- B. This is nothing but transferring data with respect to all commercial transactions electronically.
 C. In other words, the conventional method of commercial transactions currently being done through papers, post, couriers and faxes will switch over to popular electronic media.
 D. This needs building up necessary information technology products, namely hardware, software, communication, networking tools and security features.
- a. DBCA b. CABD c. ABCD d. BACD
55. 1. American studies indicate that 40 per cent of all first marriages end in divorce, and more than half of second marriages fail.
 A. But counsellors say that chances of failure are equal in first and second marriages.
 B. They might be a tad higher in a remarriage due to the excess baggage from the earlier marriage.
 C. Particularly, if children are involved or if one is emotionally unprepared while tying the knot the second time.
 D. One cannot derive these conclusions in the Indian context.
- a. CABD b. DBCA c. DABC d. ABCD
56. 1. She walked down the cobbled street which seemed to be paved with the tears she shed. She had to decide, think and move on.
 A. The first flush of happiness and love, a seemingly loving husband, a baby and a career.
 B. Urmi, an airline staffer in Delhi, had realized that she could not continue to live with Anirudh.
 C. Her first marriage had given her all she had wanted.
 D. But then came physical and verbal abuse — a cruelty she had not anticipated.
- a. CDAB b. CADB c. CABD d. BCAD
57. 1. As can be seen from the mounds of plastic bags, paper wrappers and loud transistor radios and tape recorders, which blare crudely just outside the entrance gate, people have little respect for community property.
 A. Like in countries abroad, India too has begun to seek to boost tourism without care.
 B. Most often than not, the adverse effects of tourism commerce replaces education as the prime motivating factor.
 C. This trait, more than any other, has led to the degradation of India's once pristine beach fronts, wilderness and cultural treasures.
 D. Luxury tourism is particularly proven to abuse, as is mass tourism with quick operators searching to squeeze fast money by cramming too many visitors into fragile wilderness.
- a. CABD b. ABCD c. DABC d. BCAD
58. 1. According to experts, the near extinction of the Asiatic lion was probably caused by the introduction of firearms.
 A. It is said that there were only around 20 lions left alive in 1913.
 B. In fact, by 1848 they had already been wiped out from the whole of India except for their last refuge — Gir.
 C. By all estimates, extinction had been warded off.
 D. The Nawab of Junagarh fortunately took some timely action and thus numbers had risen to 100 by 1920 and to around 290 by 1955.
- a. ABCD b. BADC c. BDAC d. CABD

59. 1. Illusionistic paintings are a fascinating art form to study.
 A. A study of illusionistic paintings inevitably begins with the Greek painter Zeuxis.
 B. In an attempt to expand his achievement to encompass human figures, he painted a boy carrying a bunch of grapes.
 C. In an early work, which is the basis of his fame, he painted a bowl of grapes that was so life like that the birds pecked at the fruit.
 D. When birds immediately came to peck at the fruit, Zeuxis judged that he had failed.
 a. ACBD b. CBDA c. ABCD d. ABDC

Direction for questions 60 to 65: Arrange the sentences A, B, C and D in a logical order so as to fit into a meaningful paragraph between statements 1 and 6.

60. 1. Mainly as a result of campaigning by Jubilee 2000, a global coalition of NGOs, the G-7 countries decided earlier this year to relax the conditions for write-off.
 A. A large universe also means a higher cost to be financed by the IMF, the World Bank and other organizations.
 B. As these financial bodies have been worried that a waiver financed from their own resources will affect the cost at which they can mobilize funds from the market in the future, they have had to look elsewhere for resources.
 C. The benchmarks for qualification have been lowered and the duration after which the multilateral debt will be waived has now been made more flexible.
 D. The result is that where earlier only 19 countries could have been covered by the HIPC initiative the number has gone up to 36.
 6. The IMF has been able to come up with its share from an off-market transaction that has led to a revaluation of its gold stocks.
 a. BDCA b. BCAD c. CDAB d. CBDA
61. 1. The New Economic Policy comprises the various policy measures and changes introduced since July 1991.
 A. There is a common thread running through all these measures.
 B. The objective is simply to improve the efficiency of the system.
 C. The regulator mechanism involving multitude of controls has fragmented the capacity and reduced competition even in the private sector.
 D. The thrust of the new policy is towards creating a more competitive environment as a means to improve the productivity and efficiency of the economy.
 6. This is to be achieved by removing the barriers and restrictions on the entry and growth of firms.
 a. DCAB b. ABCD c. BDAC d. CDBA
62. 1. Each of us has our roots reaching deep into the primordial nature of the cosmos.
 A. We are incessantly striving to retrace our roots and remember our essential nature through all the fears, desires, pains and preconceptions of our ego-self.
 B. These roots are obscured by the knots tied by our ego in our body-mind-soul complex.
 C. This essential nature is transpersonal; in the esoteric context, it connotes the interwoven nature of our self and the world.

- D. Thus, the illusory nature of our mundane identity forged out of our interactions with the world is recognized and our unity with the macrocosm is realized.
6. This realization is by means of an awakening of divine power lying dormant within the body-mind-soul complex.
- a. CADB b. CDBA c. BDCA d. BACD
63. 1. The world is immersed in a rare and unprecedented era of technological transformation that is rapidly remarking virtually every aspect of the way we work and live.
- A. The impact is awesome because intellect is the greatest power of all.
- B. While the machines of the industrial age magnified the power of the human muscle, the computer chip magnifies the power of the human mind.
- C. The computer chip was an unprecedented breakthrough, greater in its application than the internal combustion engine, the telephone and the radio.
- D. Twenty years ago there were only 50,000 primitive computers in existence and a like number of people who could handle them.
6. But now, even a five-year old knows how to operate a computer, which has decreased in size and increased in its operations.
- a. DACB b. CBAD c. DCBA d. CADB
64. 1. But back in 1986 it seemed unlikely that Frank Williams had any future at all.
- A. The surgeon saved his life but he suffered spinal injuries, losing the use of his arms and legs.
- B. Williams came back from the brink; in the decade since his accident none of the 11 international teams have been more consistently successful than Williams' team.
- C. Driving away from the Paul Ricard Circuit outside Marseilles he lost control of his rental car and landed upside down in a ditch.
- D. Few believed that he would be able to continue to run the auto-racing business from the wheel chair to which he was now confined.
6. It has won the Federation International Formula One Championship that has required design and engineering teams capable of building outstandingly fast racing cars.
- a. CBAD b. DCBA c. CADB d. DACB
65. 1. He tried in vain to convince her that the path she had chosen was bound to lead to disaster.
- A. She was caught in the act and stoned to death.
- B. He found it difficult to understand the reason for her strange behaviour.
- C. However, she chose to go her own way.
- D. She had written her destiny with her own hands.
6. It was an example of the adage that one is responsible for one's own fate.
- a. ADBC b. CBAD c. BCAD d. ABCD

Direction for questions 66 to 75: Read each of the passages and answer the questions that follow.

66. Sometime ago, while designing an awareness-creating exercise, I was struck by the number of different scenarios that can unfold in even a short interaction. In order to take a person through just four situations and give him a choice of three options in each situation, I had to write 121 different scenarios ($1 + 3 + 9 + 27 + 81$) that ended up taking participants to radically different endings.

From the above, we can infer that

- a. in awareness-creating exercises, the number of scenarios that exist in each situation is striking, even though they may have no bearing on real life.
- b. in life, as in theory, every situation has a lot of options. The direction that life takes depends on the option exercised at each stage.
- c. different endings are a result of individual participant's interpretation of the scenarios.
- d. while designing an awareness-creating exercise, it is important to create radically different endings to suit different participants.

67. The appellants claimed refund of tax reimbursed to the forest department by filing a writ petition before the high court. The refund was declined by the court on the presumption that the burden of tax must have been passed on to the consumer.

From the above, we can best infer that

- a. if a tax has already been passed on to the customer by the seller, then the seller cannot claim a refund on the same.
- b. appellants who claim tax refunds after having already passed it on to the customers set a wrong precedent.
- c. the court has given a judgement based on the presumption that is unproven.
- d. the ultimate taxpayer is the appellant.

68. The company encourages its managers to interact regularly, without a pre-set agenda, to discuss issues concerning the company and society. This idea has been borrowed from the ancient Indian concept of a religious congregation, called satsang. Designations are forgotten during these meetings; hence, it is not uncommon in these meetings to find a sales engineer questioning the CEO on some corporate policy or his knowledge of customers.

Based on the information provided in the above passage, it can be inferred that

- a. the company is concerned about its reputation with its employees.
- b. the company believes in fostering the spirit of dialogue without degenerating it into a positioning-based debate.
- c. the company had some inter-personnel problems in the past due to which it felt the need for these corporate satsangs.
- d. All of the above

69. From Cochin to Shimla, the new culture vultures are tearing down acres of India's architectural treasures. Ancestral owners are often fobbed off with a few hundred rupees for an exquisitely carved door or window, which fetches fifty times that much from foreign dealers, and yet more from the drawing room sophisticates of Europe and the US. The reason for such shameless rape of the Indian architectural wealth can perhaps, not wrongly, be attributed to the unfortunate blend of activist disunity and the local indifference.

It can be inferred from the above passage that

- a. the environment created by the meeting between activist disunity and local indifference is ideal for antique dealers to thrive in India.
- b. only Indians are not proud of their cultural heritage and are hungry for the foreign currency that is easily available in return of artefacts.
- c. most Indian families have heirlooms which can be sold at high prices to Europeans and Americans.
- d. India provides a rich market for unscrupulous antique dealers.

70. Deepa Metha's *Fire* is under fire from the country's self-appointed moral police. Their contention is that the film is a violation of the Indian cultural mores and cannot be allowed to influence the Indian psyche. According to them, such films ruin the moral fabric of the nation, which must be protected and defended against such intrusions at all cost, even at the cost of cultural dictatorship.

Based on the information in the above passage, it can be inferred that

- a. the assumption underlying the moral police's critique of *Fire* is that the Indian audience is vulnerable to all types of influences.
- b. the assumption underlying the moral police's critique of *Fire* is that the Indian audience is impressionable and must be protected against 'immoral' influences.
- c. the moral police thinks it has the sole authority to pass judgement on films screened in India.
- d. None of these

71. The dominant modern belief is that the soundest foundation of peace would be universal prosperity. One may look in vain for historical evidence that the rich have regularly been more peaceful than the poor, but then it can be argued that they have never felt secure against the poor that their aggressiveness stemmed from fear; and that the situation would be quite different if everybody were rich.

It can be inferred from the above passage that

- a. a lot of aggression in the world stems from the desire of the haves to defend themselves against the have-nots.
- b. universal prosperity as a foolproof measure of peace can no longer be accepted.
- c. Both (a) and (b)
- d. Neither (a) nor (b)

72. The effect produced on the mind by travelling depends entirely on the mind of the traveller and on the way in which he conducts himself. The chief idea of one very common type of traveller is to see as many objects of interest as he possibly can. If he can only after his return home say that he has seen such and such a temple, castle, picture gallery, or museum, he is perfectly satisfied. Far different is the effect of travels upon those who leave their country with mind prepared by culture to feel intelligent admiration for all the beauties of nature and art to be found in foreign lands. When they visit a new place, instead of hurrying from temple to museum to picture gallery, they allow the spirit of the place to sink into their minds, and only visit such monuments as the time they have at their disposal allows them to contemplate without irreverent haste.

It can be inferred from the above passage that

- a. the writer prefers the second type of traveller.
- b. the first type of traveller is the lay traveller who does not understand the worth of any place he travels to.
- c. the objective of the second type of traveller is not to see much, but to see well.
- d. All of the above

73. Whether we look at the intrinsic value of our literature, or at the particular situation of this country, we shall see the strongest reason to think that of all foreign tongues, the English tongue is that which would be the most useful to our native subjects.

It can be inferred that

- a. the speaker is a die-hard colonist.
- b. the speaker has the good of the nation at heart.
- c. the speaker is addressing an issue related to a colonial empire.
- d. None of these

74. Where the film *Bombay* loses out is where every commercial film congenitally goes awry — becoming too simplistic to address serious issues and failing to translate real life to reel life.

Which of the following can be inferred from the passage?

- a. The film's director aimed at recreating real life on the silver screen.
- b. The film was too simplistic for the audience's taste.
- c. The film was successful in spite of its shortcomings.
- d. None of the above

75. Aspiration is nothing new. Neither is the debate over what the Indian middle class is, what it wants and what it buys. Since the mid-80s, that has been the focus of the economic policy papers so-called pro- and anti-poor budgets and marketing strategies that have successfully broken the barrier of urban selling and reached deeper into rural India with increasing income levels and aspirations.

Based on the above passage, it can be inferred that

- a. the Indian middle class has been the focus of economic policies for a long time.
- b. the Indian middle class has graduated from being the 'deprived' middle class to the 'pampered' middle class.
- c. Both (a) and (b)
- d. Neither (a) nor (b)

Direction for questions 76 to 80: Each question has a set of four statements and each statement has three segments. Choose the alternative in which the third segment can be logically deduced using both the preceding two segments but not from just one of them.

76. A. All heroes go to the film festival; some heroes win an award; good actors always win an award.
 B. All heroes go to the film festival; some heroes win an award; good actors deserve to win.
 C. Anupam Kher is a good actor; Anupam Kher won an award; good actors always win an award.
 D. Some heroes win an award; good actors deserve to win; good actors always win an award.
 a. A and B b. C and D c. A and C d. None of these
77. A. Jack has Knack; Knack has no Jack; some Jack has Knack.
 B. Jack has some Knack; some Knack has no Jack; all Knack has no Jack.
 C. Jack has no Knack; Knack has no Jack; some Jack has Knack.
 D. Knack has some Jack; Jack has some Knack; some Jack has Knack.
 a. A, B and C b. B only c. B and D d. None of these
78. A. Some men are harsh; some men are evil; some harsh men are not evil.
 B. All baseball players are psychotic; no baseball player is a coward; no psychotic is a coward.
 C. No idiot is a happy man; some happy men are discontented persons; some discontented persons are not idiots.
 D. All buildings are tall structures; some tall structures are hazards; some hazards are buildings.
 a. A and C b. B and C c. C only d. D only
79. A. All books are thick; all newspapers are thick; all books are newspapers.
 B. Some kings are ruthless people; all kings are royal personalities; some royal personalities are ruthless people.
 C. All pubs are in Delhi; some bars are in Delhi; all pubs are bars.
 D. New Yorkers are scared of terrorist attacks; some Londoners are New Yorkers; some Londoners are scared of terrorist attacks.
 a. A and C b. B and D c. A and B d. C and D
80. A. Some glasses are not brittle substances; some glasses are solid substances; some solid substances are not brittle.
 B. All lakes are circular; the Nile is not a lake; the Nile is not circular.
 C. He is a beer lover; some beer lovers love to get drunk; he loves to get drunk.
 D. All lions are fierce creatures; all tigers are lions; all fierce creatures are tigers.
 a. A and B b. C and D c. D only d. None of these

Section – II

Direction for question 81: Answer the question independently.

81. Vijay covers 910 km by boat, road and rail in the ratio 4 : 3 : 6 respectively. Surprisingly, the speeds at which the journey was covered were also in the ratio 4 : 3 : 6 respectively. The total time taken for the journey was 89 hours. The ratio of the time taken by boat, road and rail was
- a. 3 : 4 : 2 b. 1 : 1 : 1 c. 6 : 3 : 4 d. 4 : 3 : 6

Direction for questions 82 and 83: Answer the questions based on the following information.

A Madhubani-Patna Indian Airlines' plane leaves Madhubani at 8 a.m. At the same time, another plane leaves Patna for Madhubani. After passing each other, they completed their journey in $84\frac{1}{2}$ min and $60\frac{1}{2}$ min respectively. Assume that the planes take parallel routes of same distance. The speed of the Patna-Madhubani plane is 260 kmph.

82. Find the speed of the Madhubani-Patna plane.
- a. 100 kmph b. 200 kmph c. 250 kmph d. 220 kmph
83. At what time will the Madhubani-Patna plane reach Patna?
- a. 10.56 a.m. b. 10.24 a.m. c. 10.36 a.m. d. Data insufficient

Direction for questions 84 to 86: Answer the questions based on the following information.

A cloth merchant has a strange problem, his metre scale contracts 10% in length in winter and expands 10% in length in summer. He sells only one type of fabric throughout the year. The unit price of the fabric also remains the same throughout the year.

84. If the ratio of the volume sold in summers and winters is 3 : 7, find the profit/loss percentage in the entire year if the trader professes to selling at his cost price.
- a. 4.04% profit b. 4.04% loss c. 5.05% profit d. No profit, no loss
85. Assuming that the sales volume are the same in both the seasons, what is the ratio of the prices if the trader makes no profit, no loss?
- a. 9 : 11 b. 11 : 9 c. 1 : 1 d. Data insufficient
86. If the selling price per metre in both the seasons is same as the cost price per metre and is equal to Rs. 990 per metre, what is the loss/profit the trader incurs per metre of fabric?
- a. Rs. 40 b. Rs. 20 c. Rs. 10 d. No profit, no loss
87. What is the last digit of A if $18 \times A^4$ leaves a remainder 3 when divided by 5? A is a natural number.
- a. 1, 4, or 9 b. 3, 4, or 8
c. 2, 6, or 7 d. Union of all numbers in (a), (b) and (c)

88. What is the minimum number of rounds that A must make in order to meet B at the starting point? The speeds of A and B are 4 m/s and 12 m/s respectively.
a. 1 b. 12 c. 3 d. 4
89. Anirban took a truck loaded with chickens to market. In the first hour, he sold one-half of them plus half a chicken. The next hour, he sold one-third he was left with plus one-third of a chicken. In the third hour, he sold one-fourth he was left with plus three-fourths of a chicken. In the last hour, he sold one-fifth he was left with plus one-fifth of a chicken. He returned home with 19 chickens. How many chickens did he take to market?
a. 113 b. 111 c. 101 d. 181
90. In Madhubani, it was found that 90% of the people took coffee and 80% took tea. Also 70% of people drank whisky and 60% drank vodka. None of the people drank all four items, but they all did drink three of the four beverages. What percentage of people drank liquor? (Both vodka and whisky are liquors.)
a. 70% b. 80% c. 90% d. 100%
91. In solving an equation of the form $ax + b = 0$ (a and b being coprimes), Anuva made a mistake in copying 'b' and got $\frac{7}{3}$ as the root, whereas Pallavi made a mistake in copying 'a' and got $\frac{8}{5}$ as the root. The correct root is
a. $\frac{8}{3}$ b. $-\frac{8}{3}$ c. $\frac{8}{3}$ or $-\frac{8}{3}$ d. Data insufficient
92. If $x > 0$, $0 < y < 1$, $z < 1$, which of the following is false?
a. xyz^2 is never negative b. xy is always positive
c. yz will be less than one d. xy is always greater than one
93. One side of an equilateral triangle is 25 cm. The mid-points of the sides are joined to form another triangle, whose mid-points are again joined to form still another triangle. This process is continued infinitely. The sum of the perimeters of all the triangles approaches
a. $\frac{625}{\sqrt{3}}$ cm b. 175 cm c. 150 cm d. $150\sqrt{3}$ cm
94. In a basket, there are some apples. Vijay takes half of them but returns one of them. Abha takes one-third of the remaining and returns two of them. Sujit takes one-fourth of the remaining and returns three of them. No apple is cut. The minimum number of apples left in the basket at the end is
a. 9 b. 28 c. 12 d. Cannot be determined
95. By selling 18 oranges, I lost the selling price of 4 oranges. What is the loss percentage?
a. $4\frac{11}{18}$ b. $22\frac{2}{9}$ c. $18\frac{2}{11}$ d. Data insufficient

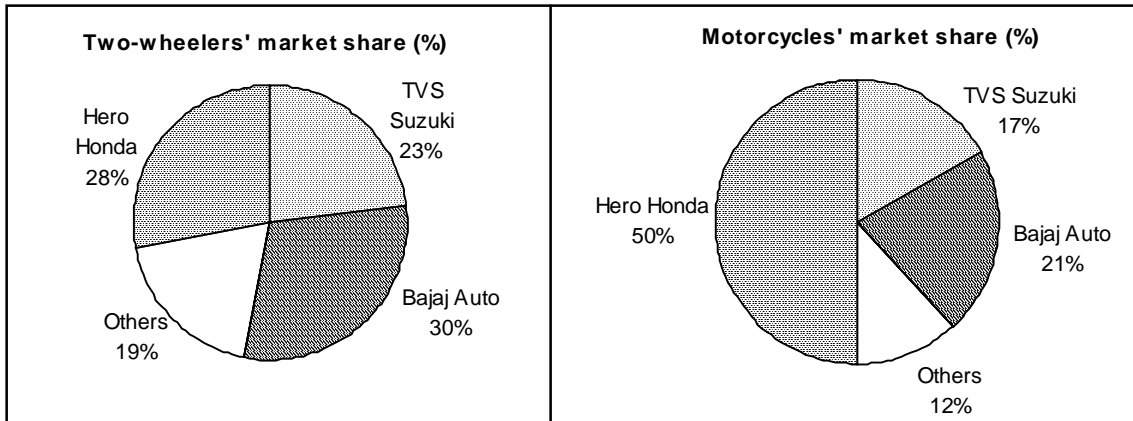
96. Ashok's watch is 15 min slow, but he thinks it is 10 min fast. Vikram's watch is 10 min fast, but he thinks it is 15 min slow. Both plan to catch a flight that leaves at 7 o'clock. Who will reach the airport first if both reach the airport exactly at the time of departure according to their watches?
- a. Vikram, 50 min before Ashok b. Both will reach together at 7 o'clock
c. Ashok, 45 min before Vikram d. Ashok, 30 min before Vikram
97. The operator \$ is defined by $a \$ b = \frac{a-b}{ab}$, $a \neq 0$ and $b \neq 0$. What is the value of $((1 \$ 2) \$ 3) \$ 4) \$ 5$?
- a. $\frac{29}{5}$ b. $\frac{1-2-3-4-5}{1.2.3.4.5}$ c. $\frac{87}{41}$ d. $\frac{1}{3}$
98. Give the condition if the quadratic form $x^2 + bx + c$ is always positive.
- a. $b^2 - 4c > 0$ b. $b^2 - 4c = 0$ c. $b^2 - 4c < 0$ d. None of these
99. If the equations $px^2 + 3qx + r = 0$ and $px^2 + 3rx + q = 0$ have a common root, then find the value of $p + 9q + 9r$. (Given that $q \neq r$)
- a. 10 b. 11 c. 0 d. Data insufficient
100. The auto fare in Ahmedabad has the following formula based upon the meter reading. The meter reading is rounded up to the next higher multiple of 4. For instance, if the meter reading is 37 paise, it is rounded up to 40 paise. The resultant is multiplied by 12. The final result is rounded up to the nearest multiple of 25 paise. If 53 paise is the meter reading, what will be the actual fare?
- a. Rs. 6.75 b. Rs. 6.50 c. Rs. 6.25 d. Rs. 7.50
101. In a certain locality, 60% of the families own TV sets, 85% own scooters and 95% own radio sets. What is the minimum percentage of families that own all the three objects?
- a. 60 b. 50 c. 40 d. 30
102. For what value of k will the following system have a unique solution?
 $x + y - z = 3$, $kx - y = 5 - 2z$, $x + 2y - z = 4$.
- a. $k = 5$ b. $k = 7$ c. $k = -2$ d. $k \neq -2$
103. If you place 9 in the left-hand side of a five-digit number, you get a six-digit number. This six-digit number is four times the six-digit number that you get when you put 9 in right-hand side of the original five-digit number. What is the sum of the digits of the five-digit number? All the digits are distinctly different.
- a. 18 b. 27 c. 17 d. Data insufficient
104. P_1, P_2 and P_3 are three consecutive prime numbers and $P_1 \times P_2 \times P_3 = 190747$. What is the value of $P_1 + P_2 + P_3$?
- a. 169 b. 179 c. 163 d. 173

105. The probability that a person can hit a target is $\frac{2}{5}$. If he is unable to hit it in the first attempt, he tries again. If he hits a target once, he does not attempt again. What is the probability that the person needs a maximum of five attempts to hit the target?
- a. $1 - \left(\frac{3}{5}\right)^5$ b. $\left(\frac{3}{5}\right)^5$ c. $\left(\frac{2}{5}\right)^5$ d. $1 - \left(\frac{2}{5}\right)^5$
106. $x = cy + bz$, $y = az + cx$, $z = bx + ay$ and if x , y and z are not zero, then the value of $a^2 + b^2 + c^2 + 2abc$ is
- a. -1 b. 1 c. 0 d. 2
107. Let $A_0 A_1 A_2 A_3 A_4 A_5$ be a regular hexagon inscribed in a circle of unit radius. Find the product of the lengths of the line segments $A_0 A_1$, $A_0 A_2$ and $A_0 A_4$.
- a. $3\sqrt{3}$ b. 3 c. 9 d. $\sqrt{3}$
108. If $\frac{5xy}{x+y} = 6$, $\frac{3yz}{y+z} = 5$ and $\frac{5zx}{z+x} = 10$, then $\frac{1}{x} : \frac{1}{y} : \frac{1}{z}$ is
- a. $11 : 14 : 4$ b. $4 : 14 : 11$ c. $\frac{1}{4} : \frac{1}{14} : \frac{1}{4}$ d. $\frac{1}{11} : \frac{1}{14} : \frac{1}{4}$
109. A fair coin is tossed four times. The probability that the number of heads is not equal to the number of tails is
- a. $\frac{1}{2}$ b. $\frac{3}{8}$ c. $\frac{5}{8}$ d. $\frac{3}{4}$
110. There are 15 points in a plane of which 4 points are on one straight-line and another 5 points are on another straight-line. The two lines are parallel and no three of the remaining 6 points are collinear. Find the number of triangles that can be formed by joining these 15 points.
- a. 441 b. 455 c. 213 d. Data insufficient
111. If $f(x) = \frac{4^x}{4^x + 2}$, find the value of $f\left(\frac{1}{1999}\right) + f\left(\frac{2}{1999}\right) + f\left(\frac{3}{1999}\right) + \dots + f\left(\frac{1998}{1999}\right)$
- a. 1998 b. 1999 c. 999 d. 998
112. Let S be a set of any five distinct numbers chosen from the set $\{1, 2, 3, \dots, 7, 8\}$. Then S contains
- a. two numbers which add to 9.
b. at least three prime numbers.
c. at least two non-prime numbers.
d. at least two odd numbers.

113. What is the area of the largest equilateral triangle that can be constructed inside a rectangle of dimensions $20\text{ cm} \times 10\text{ cm}$?
- a. $\frac{100}{\sqrt{3}}$ sq cm b. $25\sqrt{3}$ sq cm c. $100\sqrt{3}$ sq cm d. (a) or (b)
114. An integer yields a perfect square if you add it to 100. The same integer also yields another perfect square if you add it to 152. What is the value of the integer?
- a. 44 b. 56 c. 65 d. Data insufficient
115. What is the length of any diagonal of a regular pentagon of unit side if $\cos 108^\circ = \frac{1-\sqrt{5}}{4}$?
- a. $\frac{\sqrt{5}+1}{2}$ b. $\frac{\sqrt{5}-1}{2}$ c. $\frac{\sqrt{3}+1}{2}$ d. $\frac{\sqrt{3}-1}{2}$
116. In a cuboid, let a , b and c be the lengths of diagonals drawn on three faces having a corner in common. Let d be the length of the largest diagonal that can be drawn in the cuboid. Then
- a. $2d^2 = a^2 + b^2 + c^2$ b. $d^2 = a^2 + b^2 + c^2$
c. $d^2 = 2(a^2 + b^2 + c^2)$ d. $3d^2 = a^2 + b^2 + c^2$
117. Vijay wishes to call a friend from a public phone booth which accepts only one-rupee coins. Vijay can remember all the digits except the last digit of his friend's number. He has 2 one-rupee coins in his pocket. He selects the last digit at random. If he gets a wrong number, he again selects the last digit at random from among the unused digits. The probability that he dials the correct number before running out of one-rupee coins is
- a. $\frac{2}{10}$ b. $\frac{8}{9}$ c. $\frac{9}{90}$ d. $\frac{3}{90}$
118. If a , b , c and d are positive quantities other than 1 such that $a^2 = b^2 = c^5 = d^6$, then $\log_d(abc)$ equals
- a. 5.8 b. 6 c. 7.2 d. 6.4
119. There are four married couples in a club. The number of ways of choosing a committee of three members so that no complete couple appears in the committee is
- a. 4 b. 8 c. 16 d. 32
120. Let X be a two-digit number such that both X and X^2 end with the same digit and none of the digits in X equals zero. When the digits of X are written in the reverse order, the square of the new number obtained has a last digit 6 and is less than 3000. Then the number of distinct possibilities for X is given by
- a. 3 b. 6 c. 8 d. 9

121. What is the maximum value of $3x + 10y$, subject to $3x + 5y \leq 15$, $5x + 2y \leq 10$, where x and y are both non-negative?
- a. 6 b. $\frac{510}{19}$ c. 30 d. $\frac{585}{19}$
122. For natural numbers N , the inequality $2^N > N^2$ holds when
- a. $N > 4$ b. $N = 1$ and $N > 4$ c. $N > 1$ d. $N > 2$
123. A publisher printed 3,000 copies of a book at a cost of Rs. 2,400. He gave 500 copies free to heads of institutions. He allowed a discount of 25% on published price and gave one extra copy when a customer buys 24 copies at a time. He sold all the copies in this scheme. If the published price is Rs. 3.25, find his gain or loss percentage.
- a. 143.75% gain b. 43.75% gain c. 43.75% loss d. 40% gain
124. Mayank can do as much work in 2 days as Kulmohan can do in 3 days, and Kulmohan can do as much in 4 days as Vijay can do in 5 days. A work takes 20 days if all three work together. How long will Kulmohan take to do all the work by himself?
- a. 80 days b. 60 days c. 45 days d. 66 days
125. If $\sqrt{x-a^2} + \sqrt{x-b^2} = a + b$, then one of the values of x is
- a. $a^2 - b^2$ b. $(a + b)^2$ c. $a^2 + b^2$ d. $(a - b)^2$
126. If $xy = 5$ and $(x + y)^2 = 17$, then $x^4 + y^4$ is
- a. 1 b. -1 c. -2 d. 2
127. A cube is inscribed in a sphere and another sphere is inscribed in the cube. What is the ratio of surface areas of the outer sphere and the inner sphere?
- a. 3 : 1 b. $\sqrt{2} : 1$ c. 4 : 1 d. 2 : 1
128. There are two jars of equal capacity. In the first jar, there is one amoeba; in the second, there are two. An amoeba reproduces itself in 3 min. If it takes the two amoebas in the second jar 3 hr to fill the jar to capacity, the first jar will be filled to its capacity in
- a. 3 hours 1 min b. 6 hours c. 3 hours 3 min d. 2 hours 57 min
129. A jar contains two liquids A and B. A is a volatile liquid and evaporates at the rate of 4 l per minute. Liquid B is stable. At the end of the 11th minute, if the ratio of volumes of A and B is 2 : 7, find the original volume of this mixture given that the original ratio of the volumes is 3 : 5.
- a. 140 l b. 224 l c. 288 l d. 180 l
130. There are x digits in a natural number ' N '. How many digits will be there in N^3 ?
- I. $3x - 2$
 II. $3x - 1$
 III. $3x$
- a. I or II b. II or III c. I or II or III d. None of these

Direction for questions 131 to 136: The following data gives the market share of the sales turnover (in rupees) of the major two-wheeler manufacturers in India for 2000.



The table below gives the production and sales of TVS Suzuki for the periods April-August in 2000 and 2001.

In units	Production		Sales	
	2000	2001	2000	2001
Scooters	56,681	67,127	53,907	65,321
Motorcycles	142,300	144,424	139,745	137,227
Mopeds	161,841	106,124	160,208	102,904

131. If the motorcycles form 40% of the sales of the two-wheeler industry in 2000, what is the market share of TVS Suzuki in the 'rest of the two-wheeler' category?
- a. 29% b. 27% c. 23% d. 31%
132. If Hero Honda manufactures only motorcycles, find the market share of motorcycles in the two-wheeler industry in 2000.
- a. 22% b. 28% c. 56% d. Data insufficient
133. If sales of TVS Suzuki in April-August period for 2000 is 50% of its annual sales for each of the categories, find the size of the two-wheeler market in 2000 in revenue terms.
- a. Rs. 31,64,000 crore b. Rs. 1,58,200 crore c. Rs. 1, 61, 100 crore d. Data insufficient
134. Which of the following is true?
- a. Hero Honda is the largest player in the scooter and moped market.
b. TVS Suzuki has a higher profitability in scooters.
c. The growth rate in sales for TVS Suzuki is the highest for mopeds.
d. None of the above
135. The ratio of the number of units of motorcycles sold to the number of units of the rest of the two-wheelers is 3 : 7 in 2000. If the average price of the rest of the two-wheelers and the average price of a motorcycle are in the ratio 4 : 7, find what per cent of its turnover does Hero Honda get from its motorcycle sales? (Assume the total turnover is only from manufacturing two-wheelers.)
- a. 35.2 b. 43.7 c. 56 d. 76.5

136. What is the sales turnover of two-wheelers sold by TVS Suzuki in April-August 2001, if the average price of a two-wheeler sold in India is Rs. 20,000?
- a. Rs. 610 crore b. Rs. 576 crore c. Rs. 552 crore d. Data insufficient

Direction for questions 137 and 138: The following table gives the GDP of some major countries in 2000 in billion dollars.

Country	GDP	Country	GDP
US	9,896.0	Pakistan	62.1
Japan	4,759.5	Korea	457.5
France	1,289.1	China	1,079.8
Germany	1,878.1	Malaysia	89.3
Singapore	92.4	Bangladesh	48.8
UK	1,416.6	Indonesia	153.7
Hong Kong	163.2		

137. If 40% of the US GDP comes from services sector, and 22.22% of Korea's GDP is contributed by the services sector, find the difference between the GDPs of services sector in the two countries in 2000.
- a. \$3,856.7 billion b. \$3,352.4 billion c. \$3,280.5 billion d. \$2,802.4 billion
138. If all the countries listed here contribute 90% to the total GDP of all countries in the world, find the share of Germany in the world GDP.
- a. 19.3% b. 7.9% c. 13.5% d. 3.5%

Direction for questions 139 to 142: Answer the questions based on the following information.

The variable cost and the revenue of XYZ Ltd. are given by $VC(x)$ and $R(x)$ respectively in rupees, where x represents the number of TV produced/sold. Total cost = $TC(x)$, which is the sum of variable and fixed cost (FC).

$$R(x) = 8000x \quad VC(x) = 5000x \quad TC(x) = VC(x) + FC \quad FC = \text{Rs. 10 lakh}$$

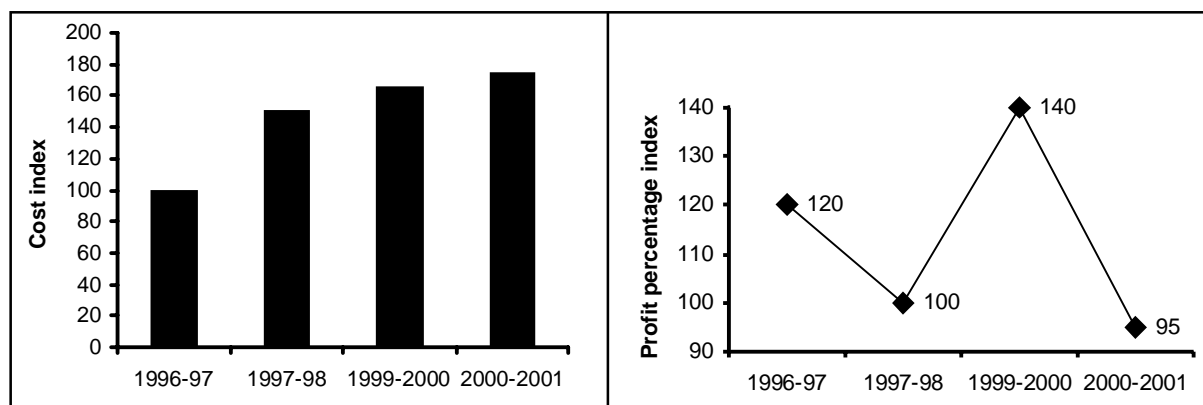
139. If production equals sales, then how many items must be produced by the company for break-even?
- a. 125 b. 200 c. 334 d. None of these
140. If the plant capacity is for 1,250 units of TVs, find the profit the company makes when it operates at 80% capacity. The company is able to sell 80% of its production and incurs a holding cost of Rs. 500 per TV that is not sold.
- a. Rs. 7 lakh b. Rs. 3 lakh c. Rs. 9 lakh d. Rs. 13 lakh

Additional direction for questions 141 and 142: The variable cost increases by 10% and the selling price is reduced by 20% due to adverse market conditions.

141. If the company produces 800 units which is the same as the earlier production prior to price/cost changes, then which of the following statements is true?
- The profitability reduces by 27.27%
 - The profitability increases by 27.27%
 - The break-even production increases
 - None of these
142. What is the break-even production in the new scenario?
- 334 units
 - 600 units
 - 1,112 units
 - 1,220 units

Direction for questions 143 to 147: Answer the questions based on the following information.

The following graphs give the indices of the cost and profit per cent of a product Z over a period of 4 years 1996-97 to 2000-2001. The base year is 1990-91.



143. If the selling price index is also calculated with respect to 1990-91, find the index in 1999-2000.
- 231
 - 396
 - 636
 - Data insufficient
144. If the SP in 1997-98 is Rs. 200, find its CP in 1997-98 (Assume profit in 2000-2001 is 20%).
- Rs. 160
 - Rs. 168
 - Rs. 152
 - Data insufficient
145. If XYZ Ltd. made a profit of Rs. 100, when the selling price was Rs. 500 in 1990-91, find the profit on product Z in 2000-01?
- Rs. 95
 - Rs. 133
 - Rs. 166.25
 - Data insufficient
146. If the SP increases by 20% in 2001-02 and the CP drops by 20%, find the profit percentage index. (Profit in 2000-2001 = 20%.)
- 142.5
 - 95
 - 220
 - 380
147. The selling price of Z increased by Rs. 500 over this period and the cost price increased by Rs. 300. Find the profit percentage in the base year.
- 47.5%
 - 75.47%
 - 95%
 - Data insufficient

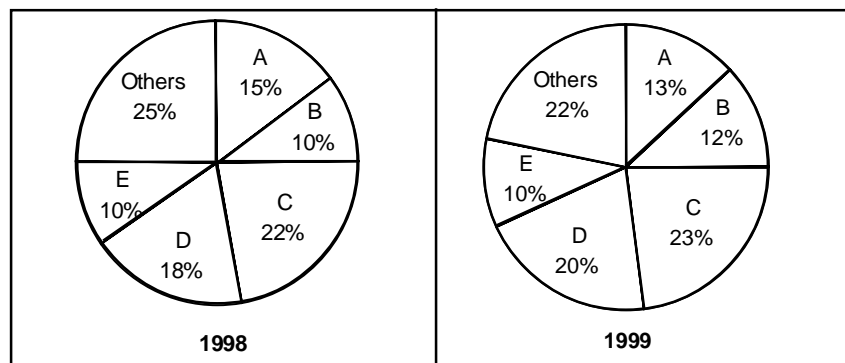
Direction for questions 148 to 152: Answer the questions based on the following information.

The following table gives the sales turnover of major detergent brands A, B, C, D, E and others in four regions east, west, north and south of India. The data is for 1998 and 1999. The pie chart gives the break-up of the sales of the same brands in terms of number of units sold.

(All rupees in crore)

Brand	Region								Total	
	East		West		North		South			
	1998	1999	1998	1999	1998	1999	1998	1999	1998	1999
A	165	172	180	192	167	190	213	180	725	734
B	75	90	62	75	53	72	17	77	207	314
C	212	182	207	222	153	162	137	120	709	686
D	101	115	121	134	113	121	178	190	513	560
E	90	105	87	95	73	92	67	92	317	384
Others	250	310	152	175	143	162	57	83	602	730
Total	813	974	809	893	702	799	669	742		

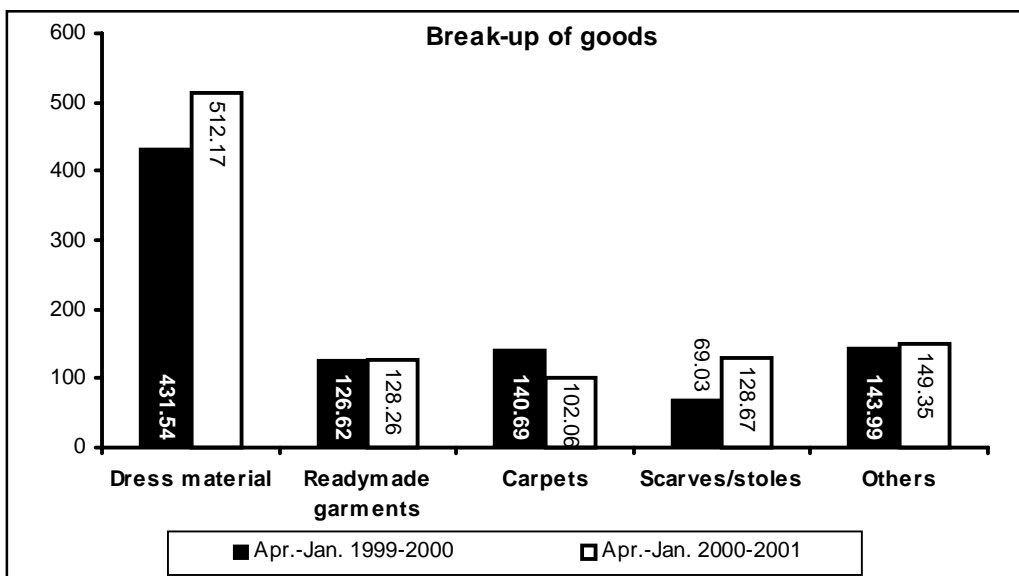
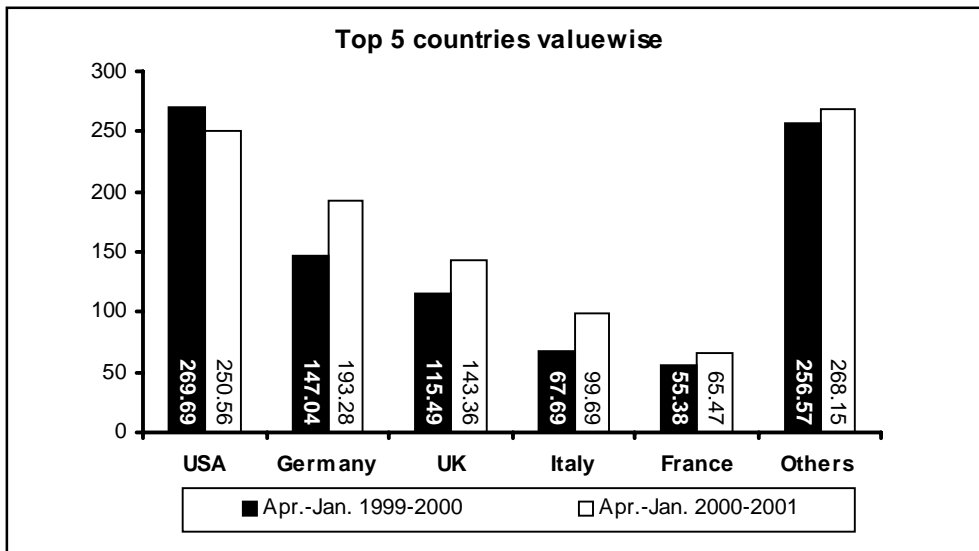
Volumewise break-up of brands all-India



148. What is the total size of the detergent market in revenue terms India in 1999?
a. Rs. 3,073 crore b. Rs. 2,842 crore c. Rs. 2,906 crore d. Rs. 3,408 crore
149. Which brand registered the maximum sales growth rate in 1999 over that in 1998 across India?
a. B b. D c. E d. Others
150. Which brand registered the maximum percentage increase in the price per unit in 1998?
a. A b. D c. Others d. None of these
151. What is the average unit price of detergent sold by 'Others' in 1998? (Assume the average unit price in the market is Re 1.)
a. Re. 0.78 b. Rs. 1.25 c. Re. 0.5 d. Rs. 2

152. Which of the following statement(s) is/are true?
- Exactly two brands could not register a growth in any of the regions in 1999.
 - The number of units sold by B in 1999 has shown an increase of above 350% in south.
 - The market in terms of volume in the west grew at a faster rate than that in the south.
- a. I only b. I and II c. I and III d. All of the above

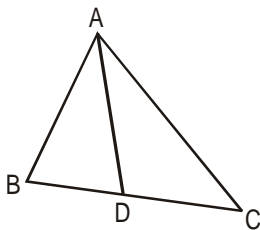
Direction for questions 153 to 155: The following graphs give the break-up of mulberry silk goods exports to the top 5 countries in April-January of 1999-2000 and 2000-01. The values of exports are all in rupees in crore.



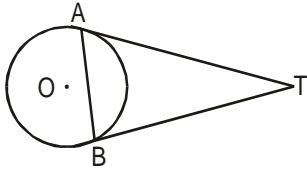
153. Which of the following statements is true?
- The exports of dress material to the US has registered a drop.
 - Export of dress material to Germany has registered an increase.
 - It is possible that US is the only country to which the exports of dress material has registered a growth.
 - Exports of dress material, scarves/stoles has registered an increase for every country except the US.
154. What is the growth in the total exports of mulberry silk goods in April-January 2000-2001 with respect to April-January 1999-2000?
- 11.9%
 - 10.5%
 - 8.3%
 - 8%
155. If the exchange rate of rupee vis-a-vis dollar decreased by 10% in the given period, what is the increase/decrease of exports of mulberry silk goods in the same time period? (Assume exchange rate is constant in April-January in a particular year.)
- 11.9%
 - 10.71%
 - 0.7%
 - Data insufficient

Direction for questions 156 to 165: Each question consists of two statements, I and II. Mark the answer as:

- if you can get the answer using both the statements but not with one only.
 - if you cannot get the answer using the available information.
 - if you can get the answer using only one of the statements.
 - if you can get the answer using any of the statements.
156. Which day was March 13 in the year x ?
- February 15 in the year $x - 1$ was Monday.
 - x is divisible by 4.
157. How many different roots are there for the equation $ax^2 + bx + c = 0$? ($a \neq 0$)
- $b - 2\sqrt{ac} = 0$.
 - $b = c = 0$.
158. Product of three natural numbers a , b and c is 30. What is $a + b + c$?
- None of the numbers a , b and c is a prime number and $a + b + c$ is divisible by 4.
 - $a = 1$
159. In $\triangle ABC$, AD is median. Find the length of BC .



- $AD = 5$ cm; $AC = 7$ cm
- $AB = AC$

160. Is $\frac{x}{y} > 0$?
- I. $x = 2y$
 - II. $x^3 = y$
161. Who is the oldest among Vijay, Pallavi and Sujit?
- I. Vijay and Sujit were born in the same year.
 - II. Pallavi's age was greater than the age of one person and was also greater than the average age of all the three.
162. The sides of a triangle are in AP with common difference as 1. What is its area?
- I. It is a right angled triangle.
 - II. It is a scalene triangle.
163. Is $a > b$?
- I. $4a + 4b < |a - b|$
 - II. $2a < |3b| - |3a|$
164. TA and TB are tangents to the circle with centre at O. What is the value of AB?
- 
- I. Radius $OA = 4$ cm; $AT = 3$ cm
 - II. Angle $TAB = 30^\circ$
165. Is Shivku older than Gautam?
- I. Their average age is twice the difference in their ages.
 - II. Shivku is 20-year old.