



# XAT

XAVIER APTITUDE TEST

## SOLVED PAPERS

### 2008-2012

3

*Full length  
Model Papers*

1

*Mock Test  
Online\**

3

*Decision Making  
Practice Test*

**Gautam Puri**



 **CAREER  
LAUNCHER**



**XAT**

**SOLVED PAPERS**

**2008-2012**

**Gautam Puri**

# XAT Question Paper 2012

## Instructions :

1. This question paper consists of three sections with 25, 32 and 28 questions respectively, i.e. a total of 85 questions. Total time for the test is 120 minutes.
2. Questions in each section have been allotted different mark(s), which are indicated on the right hand side of each question. You are expected to maximize scores in each section.
3. NEGATIVE MARKS (one fourth of the mark(s) allotted for each question) may be deducted for answering incorrectly any particular question

## SECTION A: DECISION MAKING

Answer question nos. 1 - 2 on the basis of the following letter.

To the Chairman:

Dear Mr. Sailesh,  
At the December 3, 2011 meeting, it was decided that no two officers would hold positions on the same committee. It has recently come to my attention that both Chaitanya Rao and Ajit Singh will be serving in some capacity on the Cultural Committee, and both have been nominated for officer status. As you know, this is in direct disregard for the rules as voted by the Members Council last December 3, 2011. I would hope that sufficient action be taken by the Disciplinary Committee (on which committee both of the above are members) so that this problem will be remedied.

Sincerely,  
Arvind Singh

1. Which of the following is an essential flaw that the writer of the letter overlooked? **1 Mark**
  - A. Rao and Ajit are already serving together on the Disciplinary Committee.
  - B. The Chairman has no power in the matter.
  - C. The Members Council cannot pass rules limiting members.
  - D. Rao and Ajit are yet to be confirmed as officers.
  - E. Cultural Committee is only active during the annual festival.
2. If both the nominations are confirmed, which of the following, exhaustively and reasonably, describes actions that may occur in the near future? **1 Mark**

- A. Arvind resigns his membership.
- B. Either Rao or Ajit resigns his membership.
- C. Ajit resigns his committee post on the Cultural Committee.
- D. Rao resigns his position on the Cultural Committee.
- E. Either Rao or Ajit resigns his position from the Cultural Committee, and the other resigns his position on the Disciplinary Committee.

Answer question nos. 3 -5 on the basis of the information given in the following case.

Due to increased competition, Ginger Automobiles, the Indian subsidiary of Pepper Automobile Company (PAC) reported lower sales and profits. PAC expects its new model *Limo*, developed especially for value conscious customers of India and China, would revive its fortunes. In order to prevent customers from buying competing products, PAC announced the launch of *Limo* six months before schedule. Due to unrest in its Indian supplier's plant, deliveries of essential components for its main plant was hampered, and hence it decided to launch *Limo* in China only as per the original plan. Within a short span of time, *Limo* captured 30% market share in China, which was 200% higher than expected. Indian customers who had looked forward to purchasing *Limo* were becoming increasingly unhappy to the non-availability of *Limo* in the India. Ginger's dealers were worried about loss of business from the customers who might switch to other cars.

3. **Statement I:** In the Chinese market, *Baft*, and *Hebe*, are competing models in *Limo*'s target market. Due to increase in sales of *Limo* by 200%, *Baft* and *Hebe* saw their market share decline by 10%.  
**Statement II:** *Baft* and *Hebe* were not desired by the customers due to their new features.  
Which of the following conclusions can be most justifiably made? **1 Mark**

- A. I alone                                      B. II alone  
 C. Either I or II                                D. Neither I nor II  
 E. I and II together

4. Unhappy customers will not only leave the company, but also spread negative publicity about the company. The best way, among the options below, to deal with customers is: **1 Mark**
- A. suggest to customers to wait.  
 B. suggest to customers to consider purchasing any of the other PAC's models available in showrooms, with a substantial discount along with gifts.  
 C. suggest to PAC to treat Indian and Chinese markets equally.  
 D. promise the top management of PAC higher sales/profit from Indian market compared to Chinese market.  
 E. suggest to the top management of PAC to manufacture essential components in either India or China.
5. Mr. Murugan from Chennai experienced the comfort of Limo during his visit to China. He was willing to deposit an approximate price of Limo to buy the first available unit from Mr. Ahmed, a dealer in Chennai, known for fair dealing. Ginger Automobile is yet to announce the actual price, and the process for allocation of the vehicles. In order to maximise his cash flow, Mr. Ahmed should
- A. collect the amount from Mr. Murugan. Later when the delivery is delayed, blame it on PAC's problems.  
 B. collect 50% as advance and the remaining 50% after the confirmation of launch date by Ginger Automobiles.  
 C. collect the amount Mr. Murugan is willing to deposit after clarifying that delivery is subject to the company policy.  
 D. not collect the amount, but suggest to Mr. Murugan to write to Ginger Automobiles.  
 E. collect the amount and transfer it to the account of Ginger Automobiles, instead of keeping it in his personal account. **1 Mark**

**Answer question nos. 6–9 on the basis of the information given in the following case.**

Tina, a blast furnace expert, who works as a technology trouble-shooter stays in Jamshedpur. She has got an important assignment in Delhi, which requires six hours to complete. The work is so critical that she has to start working the moment she reaches the client's premises.

She is considering various options for her onward and return journey between Jamshedpur to Delhi.

A quick search revealed that ticket from Jamshedpur to Delhi is available in two trains. Trains 12801 and 12443 depart from Jamshedpur station at 06:45 hrs and 15:55 hrs and reach Delhi next day at

04:50 hrs and 10:35 hrs respectively. Trains 12444 and 12802 start from Delhi at 17:20 hrs and 22:20 hrs and reach Jamshedpur next day at 10:35 hrs and 20:05 hrs respectively.

Another option is to reach Ranchi by a three hour road trip and take a flight to Delhi from Ranchi. The distance between Ranchi and Delhi is covered in 105 minutes both-ways by any of the scheduled flights. Air India operates two flights, AI 9810 and AI 810, which depart Ranchi at 8:00 hrs and 15:25 hrs respectively. Flight number IT-3348 operated by Kingfisher Airlines departs Ranchi at 19:20 hrs, Return flights operated by Air India, AI 9809 and AI 809, depart Delhi at 5:50 hrs and 11 :00 hrs respectively. Flight number IT-3347 operated by Kingfisher Airlines departs Delhi at 17: 10 hrs.

From Tina's home Jamshedpur railway station is five minutes drive, and her destination at Delhi is 90 minutes and 30 minutes drive from airport and railway station respectively. One has to reach the airport at least one hour before the scheduled departure to complete the boarding procedure. At every railway station she loses five minutes in navigating through the crowd.

6. If Tina wants to minimise the total time out of Jamshedpur, the best option for her, from the options given below, is: **1.5 Mark**
- A. AI 9810 and return by IT 3347.  
 B. AI 9810 and return by train number 12802.  
 C. IT 3348 and return by AI 9809.  
 D. Train number 12443 and return by train number 12444.  
 E. AI 9810 and return by train number 12444.
7. Tina gets a message that her work has to be completed between 9:00 hrs. and 17:00 hrs. If she wants to minimise the total time out of Jamshedpur, the best option, from the options given below, for her among the following is to go by **1.5 Mark**
- A. Train 12443 and return by Train 12444  
 B. Train 12801 and return by Train 12802  
 C. AI 9810 and return by AI 9809  
 D. AI 810 and return by AI 9809  
 E. IT 3348 and return by IT 3347
8. Tina has to appear for an exam on 8<sup>th</sup> of January in Jamshedpur and she can start from her residence in Jamshedpur only after 16:00 hrs of the same day. Choose the option, from the options given below, that will help her to minimise the total time out of Jamshedpur. **1.5 Mark**
- A. Go by Train 12443 and return by Train 12444  
 B. Go by Train 12443 and return by AI 9809  
 C. Go by IT 3348 and return by Train 12801  
 D. Go by AI 810 and return by Train 12801  
 E. Go by AI 9810 and return by AI 9809

9. If Tina decides to minimise the in-between waiting period, the option that she should choose from the options given below, will be: **1.5 Mark**
- A. Go by Train 12801 and return by IT 3347
  - B. Go by Train 12443 and return by Train 12802
  - C. Go by AI 9810 and return by Train 12802
  - D. Go by AI 810 and return by AI 9809
  - E. Go by IT 3348 and return by AI 809

**Answer question nos. 10 - 15 on the basis of the information given in the following case.**

*Teknik Group of industries* had businesses in different sectors ranging from manufacturing, construction, fish farming and hotels. These different businesses operated as semi-independent units managed by the unit level managers. Teknik's management had an internal consultancy group called as Business Advisory Group (known internally as BAG). The 15 experts in BAG were hired personally by Mr. Teknikwala, the owner of Teknik, who wanted this core group of experts to help his organization grow fast without facing the typical growth hurdles. Most of them were specialists in fields like law, information technology, human resource management, and operations management. Almost all of them had experience spanning decades in the industry. Whenever any of the units faced any significant problems, the unit level managers would put up a request for help to BAG. The problems ranged from installation of internal MIS systems, to financial advice related to leasing of equipment, to handling of employee grievances.

Over a period of 20 years, Teknik's revenues grew from ₹ 100 crore ₹ 10,000 crore with guidance of BAG and due to Mr. Teknikwala's vision. Given its reputation in the industry, many people wanted to start their careers in BAG. Often young MBAs, fresh out of business schools would apply. However their applications used to be rejected by Mr. Teknikwala, who had a preference for people with extensive industry experience.

Things changed after the unfortunate demise of Mr. Teknikwala. His daughter Miss. Teknikwali took up the family business. She was an MBA from one of the premier business schools, and was working in a different company when Mr. Teknikwala passed away. She preferred that BAG develop new ideas and therefore inducted freshly graduated MBAs from premier business schools. She personally supervised the recruitment and selection process. Now the entire group constituted of 50 specialists, out of which 35 were the old time members. She also changed the reporting relationships in the BAG group, with some of the older members being made to report to the new members. In IT team, Mr. Shiv, a newly recruited MBA, was made in-charge.

For the older members it was a shock. However, as most of them were on the verge of retirement, and it would be challenging to search for new jobs while

competing with younger professionals, they decided to play along.

After one month, all business units were caught up in the ERP fever. This was an idea pushed by Ms. Teknikwali who the need the need to replace the old legacy systems with latest ERP system integrating all the units of Teknik. This was heavily influenced by her experience in the previous where an ERP system was already up and running. Therefore she was not aware of the difference between installing an ERP system and working on an already installed one.

The ERP implementation in Teknik Group required extensive coordination with senior level managers of all units and it represented an extra work for those who were involved. This coordination was required to understand the different work processes and the users' requirements. This coordination activity was being extensively managed by the old timers as they were familiar with internal processes and people in the different units. An external consultant was also hired for customisation and implementation.

After two months, BAG teams had to fortnightly present their progress to Ms. Teknikwali's team. In the last meeting Ms. Teknikwali was dissatisfied. She explained her thinking that since ERP impacted every aspect of the business, the roll out had to be done faster. She wanted Mr. Shiv to get the implementation completed ahead of schedule. In the meeting she asked Mr. Shiv to get the people in IT team to be more productive. Not willing to disagree, Mr. Shiv committed to a roll-out schedule of complete ERP system in 6 months instead of earlier decided 14 months.

Next day, Mr. Shiv presented the revised project milestone to BAG members. He told them that in order to meet the deadline, the members were expected to work on week-ends till the completion of the project. Along with that, they were also expected to maintain their earlier standards of delivery time and quality for the normal trouble-shooting and internal advisory work. Mr. Shiv also pointed out that anyone whose performance did not meet the expectations would be subjected to formal disciplinary action.

The meeting ended without any member commenting on Shiv's ideas, although Mr. Shiv heard a lot of mumbling in the corridor. Over the week, Shiv noticed that the members seemed to avoid him and he had to make extra effort to get ideas from them. After a fortnight Shiv reviewed the attendance register and found that Mr. Lal, an old time member, had not come during the week- ends and certain decisions were held up due to lack of inputs from Mr. Lal. Mr. Shiv issued a written reprimand to Mr. Lal. He was speechless on receiving the reprimand but kept silent.

It has been three days since that incident. Some of the senior members had put in request for transfer to other business units. It was rumoured that four senior legal experts had agreed to an offer from a law firm. Other senior members would sporadically come in late to work, citing health reasons. Almost all senior members now wanted a weekly work-routine to be prepared and given to them in advance so that they could deliver as per the schedule. This insistence on written communication was a problem as urgent problems or ad-hoc requests could not be foreseen and included. Also, normal services to other business units were being unattended to, and there were complaints coming from the unit heads.

10. Which of the following could have been a better response of Mr. Shiv to Ms. Teknikwali's request to re-schedule the ERP implementation? **1 Mark**
- Look at industry best practices regarding fast-tracking of ERP projects and then commit to a new deadline.
  - Consult the external consultant who was involved with ERP customisation and implementation.
  - Create a smaller team of all the new recruits of BAG and present the idea to them alone.
  - Eliminate the reliance on external consultants as they would be slow.
  - Present the idea to BAG members and ask them to look at the feasibility of the entire plan.
11. Which of the following can be identified as the immediate cause for the problems in BAG?
- Ms. Teknikwali's decision to appoint Mr. Shiv as project lead for ERP implementation.
  - The incompetence of the consultant who was implementing the ERP project.
  - Lack of information about what was happening in the ERP project.
  - Infighting between new recruits and the older members of BAG group.
  - Unilateral decision making by Shiv. **1 Mark**
12. How should Mr. Shiv cope with the situation now? Choose the best option, considering Mr. Shiv's career would be at stake if the ERP project fails, and assuming that for carrying out the options, he has the necessary authority to do so. **1.5 Mark**
- Resign from BAG. The project cannot be done as per the re-scheduled time-table. Get a job in another company based on BAG's brand-name.
  - Inform Ms. Teknikwali about the situation and get help from her to deal with the old time members. Some old members need to be fired so that others are also disciplined.
  - Align the new members of the BAG group to his side by promising them rewards at end of the project. Obtain approval from Ms. Teknikwali for the same.
  - Develop work-routines aligned to the ERP project requirements. Hire extra resources for dealing with other ad-hoc requirements and for the ERP project requirements.
  - Create a joint team of old members and new members within BAG to take care of ad-hoc requirements. They would be socialized in out-bound programmes like mountaineering etc., which will be conducted during week-ends.
13. Of all the problems being faced in BAG, which of the following is neither discussed nor hinted at? **1 Mark**
- Ms. Teknikwali's lack of faith on older members to implement new ideas.
  - The inability of the younger members to work along with the older members of BAG.
  - Mr. Shiv's intention to impress Ms. Teknikwali by agreeing to a tougher deadline.
  - Ms. Teknikwali's lack of understanding of the complexity of an ERP implementation.
  - Mr. Shiv's lack of understanding of the sensitivities of the older members of BAG.
14. After her father's demise, the best way Ms. Teknikwali could have gone about dealing with BAG group would have been to: **1 Mark**
- Discuss with the members as to what their views were about the company and solicit ideas on how to make it grow further.
  - Retire the entire team and hire a fresh team according to her criteria and her requirements.
  - Hire an external consultant who would have interacted with the BAG members on her behalf.
  - Ask the unit managers about the performance of the BAG group's performance and productivity. After that have discussion with BAG members about unit managers' performance.
  - Break down BAG into different sub-groups. It would be easy to tackle one sub-group at a time and do what she wanted to achieve. **1 Mark**
15. It can be inferred from the above case that implementation of an ERP package in an organization requires creation of a team that has:
- a mixture of experienced employees and newly graduated employees
  - only young people with education in top schools and colleges
  - sufficient number of people who are networked with powerful stakeholders in the organization
  - right amount of problem solvers along with those who are abreast of the latest ERP technology
  - people who have been involved with operations for a long duration of time along with people who are aware of the latest in ERP technology

**Answer question nos. 16 - 18 on the basis of the information given in the following case.**

Dev Anand, CEO of a construction company, recently escaped a potentially fatal accident. Dev had failed to notice a red light while driving his car and attending to his phone calls. His well-wishers advised him to get a suitable replacement for the previous driver Ram Singh, who had resigned three months back.

Ram Singh was not just a driver, but also a trusted lieutenant for Dev Anand for the last five years. Ram used to interact with other drivers and gathered critical information that helped Dev in successfully bidding for different contracts. His inputs also helped Dev to identify some dishonest employees, and to retain crucial employees who were considering attractive offers from his competitors. Some of the senior employees did not like the informal influence of Ram and made it difficult for him to continue in the firm. Dev provided him an alternative job with one of his relatives.

During the last three months Dev has considered different candidates for the post. The backgrounds of the candidates are given in the table below.

Name	Age	Educational Qualification	Experience	Expected Salary (₹)	Remarks
Sunder	32	Post graduate	Seven years of driving experience	18,000 per month	Ex-employers are highly satisfied. Their only concern is about his tendency to switch jobs after every six months. Enjoys the newness in every job but tends to lose interest after six months. Not willing to commit for any more than six months
Mani	23	Studied up to Standard IX	One year	8,000 per month	Claims to have more than one year of experience, but can't provide any certificate to substantiate it. He has received a hike of ₹ 2,000 last month on account of his good performance as a driver.
Chintan	44	Graduate	20 years	20,000 per month	Working as a driver for the last one year after losing his previous job of a stenographer. He has been forced to take up the job of a driver.
Bal Singh	40	Literate	More than 20 years	15,000 per month	Cousin of Ram Singh. Substituted Ram as Dev's driver whenever Ram was on leave. Currently working as a driver with Dev's in-laws. Strongly recommended by Ram. His knowledge and contacts in the firm is as good as Ram's.
Chethan	38	Standard XII	10 years	12,000 per month	Working as a temporary driver with Dev's major competitor for the last three years. The competitor has offered Chethan's service to Dev on a temporary basis. Chethan has also expressed his willingness to work on a long term basis, provided he is given an annual increment of ₹ 500, which is reasonable as per the market condition.

Dev is primarily looking for a stable and trustworthy driver, who can be a suitable replacement for Ram. His family members do not want Dev to appoint a young driver, as most of them are inexperienced. Dev's driver is an employee of the firm and hence the appointment has to be routed through the HR manager of the firm. The HR manager prefers to maintain parity among all employees of the firm, He also needs to ensure that the selection of a new driver does not lead to discontent among the senior employees of the firm.



Naresh used to be idle for substantial part of the year. As a consequence, he could not expand his business.

His two children were growing up and his existing business could not support their expenses. The medical expense of his elderly parents was another drain on his resources. The constant rise of prices in medical care and medicines was another issue. For Naresh, family's concern was predominant. Naresh was, therefore, under pressure to expand his business. He was the sole earning member of his family, and he had to ensure their well being. He thought that by expanding his business, not only he would be able care for his family in a better way, as well as offer employment to more number of masons and labourers. That would benefit their families as well. Naresh drew the boundary of his society to include himself, his family members, his employees and their family members.

For expansion, the only option in the city was to enlist as a contractor for government work. Before deciding, he sought advice from another contractor, Srikumar, who had been working on government projects for a long period of time. Srikumar followed the principle of always helping others, because he believed that he would be helped back in return some day. Srikumar had just one advice "The work is given to those who will win the bidding process and at the same time will give the maximum bribe. Prices quoted for work have to include bribes, else the bills will not get cleared and the supervisors will find multiple faults with the execution of work. This ensures survival and prosperity for contractors".

When asked about other contractors, Srikumar said "The government contractors are like a micro-society in themselves, almost like a brotherhood. Within that, they are highly competitive; however towards any external threat they are united to ensure no harm happens to any of their members".

21. Naresh decided to work as a government contractor. Following Srikumar's advice, he inflated the prices so that he could pay the bribes out the bills received. **1.5 Mark**
- A. Naresh is now totally unethical.
  - B. Naresh can not be called totally ethical.
  - C. Naresh can be called ethical when it suits him.
  - D. Naresh is ethical to some extent.
  - E. Naresh is being totally ethical.
22. A new supervisor had joined a government department where both Naresh and Srikumar were bidding for work. During the bidding process for a particular project, in an open meeting with all contractors and officers from the department, he produced a document which had the rates at which Naresh had worked for private clients for similar building related work. He accused Naresh and

Srikumar of over-pricing for government work and threatened to disqualify them from the bidding process, if the rates are not brought down. Faced with that situation, Naresh gave a written reply that "I use materials of inferior quality for private work, and that is the reason for price difference": Srikumar supported Naresh in the meeting by saying that he had seen Naresh's work and he agreed. In this situation, it can be concluded that:

- A. both Naresh and Srikumar are unethical.
- B. Naresh is unethical while Srikumar is not.
- C. both Naresh and Srikumar are ethical.
- D. Naresh is ethical to a large extent, but no conclusion can be made about Srikumar.
- E. Srikumar is unethical, but no conclusion can be made about Naresh. **1.5 Mark**

23. Lankawala, another contractor, when faced with the new supervisor's demand to reduce prices for government work, asked him to guarantee that no bribes would be taken, and only then prices would be reduced. This was said in front of everyone. At this the supervisor forced Lankawala out of the meeting and threatened to black-list him. Lankawala did not say anything and walked away. Blacklisting of a contractor by one government department implied that Lankawala would not be able to participate in any government departments' works.

In late evening, the city was abuzz with the news that the supervisor's dead body was seen on the railway tracks. In the investigations that followed, no one who attended the meeting recounted the happenings in the meeting to the police. Getting involved in murder cases could lead to unpredictable outcomes such as becoming the potential suspect, or an accessory to the crime. Furthermore, cases could drag on for years, and one would have to appear in court as witnesses in response to court's summons. This, for a contractor, was a serious threat to his business due to the disruptions created. However, Naresh wanted to speak out but was pressurised by Srikumar and other contractors not to, and as a result he did not. Due to this, the case was closed unresolved with no one found guilty.

- In this situation, it can be concluded that: **2 Mark**
- A. Srikumar is immoral, but ethical, while Naresh is not unethical.
  - B. Naresh is ethical and moral, while other contractors are immoral and unethical.
  - C. Naresh, Srikumar and other contractors are both immoral and unethical.
  - D. Other contractors are moral, and they prevented Naresh from being immoral.
  - E. Other contractors are unethical, but no conclusion can be made about Naresh.



**Answer question nos. 24 - 25 on the basis of the information given in the following case.**

Saral Co. is operating in seven north-eastern states of the country. The organization has a history of participative decision making, wherein people deliberate openly about pros and cons of every important decision, and a broad consensus is taken before taking the final decision. In Saral Co. every employee gets a salary proportional to the sales achieved. A new General Manager (GM) joined during the beginning of this month and challenged the organization's sole focus on sales to determine salaries. He urged the top management to include two more additional parameters in determining the salaries of the employees, viz. collection of information about competitors and the quality of relationship with the retailers. **1 Mark**

24. Manohar, the highest earning employee for the last three years, vehemently opposes the GM's proposal. Which of the following could be the most likely reason for him to oppose the proposal?
- A. He considers the proposal as a serious threat to his favourable position in Saral Co.
  - B. He is not interested in collecting the information regarding competitors.

- C. No clarity regarding the relative importance of the three parameters.
- D. He is not interested in maintaining quality relationship with retailers.
- E. He may need to work harder to earn the highest salary.

25. The top management of Saral Co. refused to implement the proposal of new GM from the beginning of next month. Which of the following could be the most justified reason for the management's refusal? **1 Mark**

- A. To ensure that no manager will get credit for a major change soon after joining.
- B. To avoid attracting criticism for their failure to implement a similar scheme.
- C. His past experience is limited to seven north-eastern states only.
- D. The GM is new to the organization and he would require some time to implement the new plan.
- E. The top management would need time to deliberate and get consensus.

## **SECTION B: ENGLISH LANGUAGE ABILITY AND LOGICAL REASONING**

26. *"On a wing and a prayer the Indian team landed in Heathrow to take on their formidable opponents".*

From the above sentence it can be inferred that the Indian team was **1 Mark**

- A. high in spirits
- B. well prepared
- C. over confident
- D. under prepared
- E. buoyant

27. It \_\_\_\_\_ not look like a great deal today, but back then it was a coup: no man before \_\_\_\_\_ to import tea directly into Ireland. **1 Mark**

**The option that will best fill the blanks in the above sentences would be:**

- A. may, has dared
- B. may, had dared
- C. might, have dared
- D. might, have ever dared
- E. may, ever dared

28. "It was AC Milan's success in Europe in the sixties that introduced the '*libero*' as the Italian default and, a quarter of a century later, it was AC Milan's success in Europe that killed it off."

Which of the following was not implied in the above sentence? **1 Mark**

- A. AC Milan was successful in Europe in the sixties with the help of a '*libero*'
- B. AC Milan was successful in Europe in the late eighties without a '*libero*'

- C. The '*libero*' was an Italian default for almost a quarter of a century.
- D. AC Milan was not successful in Europe for almost a quarter of a century.
- E. The Italians seldom used a '*libero*' since late eighties.

29. **Choose the odd one:**

- A. Chaos / Order
- B. Fact / Fiction
- C. Virtue / Vice
- D. Study / Analyse
- E. Light / Darkness

**1 Mark**

30. The 2001 census showed a sharp fall in the literacy rate compared to 1991, but an increase in the literacy rate by 2006 suggests that between 1991 and 2006 India progressed in terms of literacy rate.

**Which of the following statements, if true, best refutes the above argument? 1 Mark**

- A. One of the causes of more literacy is the increased population growth rate.
- B. Although there was no census in 2006 the information about the literacy rate is reliable.
- C. Many of those who were illiterate in 2001 became literate by 2006.
- D. The rate of fall in literacy rate between 1991 and 2001 was more than the rate of rise in literacy rate between 2001 and 2006.
- E. The rise in literacy rate between 2001 and 2006 was due to persistent campaign on television and FM radio.

31. Ravindra Dubey was guilty of embezzlement. It means that Ravindra Dubey **1 Mark**
- did not pay his bills.
  - misappropriated assets he was entrusted with.
  - engaged in circulating black money in the economy.
  - cheated on his spouse.
  - misreported educational qualification.
32. Read the sentences and choose the option that best arranges them in a logical order. **1 Mark**
- Some of these are tangible while others are not.
  - The micro factors look at brand building, product development, competition, pricing, decision making within organizations etc.
  - Another way to classify these factors is to distinguish which of them are macro in nature and which of them are micro.
  - The macro factors comprise government policies, state of the economy, changing demographics etc.
  - The factors influencing forecasts include social, technological, economic, political, religious, ethnic, governmental, and natural factors.
- A. E-A-C-D-B    B. E-C-B-D-A    C. A-E-C-D-B  
D. D-B-A-C-E    E. E-D-B-A-C

**Read the following passage and provide appropriate answers for the questions 33 - 37.**

There is an essential and irreducible 'duality' in the normative -conceptualisation of an individual person. We can see the person in terms of his or her 'agency', recognizing and respecting his or her ability to form goals, commitments, values, etc., and we can also see the person in terms of his or her 'well-being'. This dichotomy is lost in a model of exclusively self-interested motivation, in which a person's agency must be entirely geared to his or her own well-being. But once that straitjacket of self-interested motivation is removed, it becomes possible to recognize the indisputable fact that the person's agency can well be geared to considerations not covered - or at least not fully covered - by his or her own well-being. Agency may be seen as important (not just instrumentally for the pursuit of well-being, but also intrinsically), but that still leaves open the question as to how that agency is to be evaluated and appraised. Even though the use of one's agency is a matter for oneself to judge, the need for careful assessment of aims, objective, allegiances, etc., and the conception of the good, may be important and exacting.

To recognize the distinction between the 'agency aspect' and the 'well-being aspect' of a person does not require us to take the view that the person's success as

an agent must be independent, or completely separable from, his or her success in terms of well-being. A person may well feel happier and better off as a result of achieving what he or she wanted to achieve - perhaps for his or her family, or community, or class, or party, or some other cause. Also it is quite possible that a person's well-being will go down as a result of frustration if there is some failure to achieve what he or she wanted to achieve as an agent, even though those achievements are not directly concerned with his or her well-being. There is really no sound basis for demanding that the agency aspect and the well-being aspect of a person should be independent of each other, and it is, I suppose, even possible that every change in one will affect the other as well. However, the point at issue is not the plausibility of their independence, but the sustainability and relevance of the distinction. The fact that two variables may be so related that one cannot change without the other, does not imply that they are the same variable, or that they will have the same values, or that the value of one can be obtained from the other on basis of some simple transformation.

The importance of an agency achievement does not rest entirely on the enhancement of well-being that it may indirectly cause. The agency achievement and well-being achievement, both of which have some distinct importance, may be casually linked with each other, but this fact does not compromise the specific importance of either. In so far as utility-based welfare calculations concentrate only on the well-being of the person, ignoring the agency aspect, or actually fails to distinguish between the agency aspect and well-being aspect altogether, something of real importance is lost.

33. According to the ideas in the passage, the following are not true *except*: **1.5 Mark**
- The value of a person's well-being cannot be obtained from the value of her agency.
  - A person's agency aspect is independent of her well-being aspect.
  - A person's agency is important because her well-being must depend on her agency.
  - A person's agency must be entirely geared towards her own well-being.
  - A person's well-being will be dependent on her agency in all circumstances.
34. In the case of Japan, there is a strong empirical evidence to suggest that systematic departure from self-interested behaviour, in the direction of duty, loyalty and goodwill have played a substantial part in industrial success. **1.5 Mark**

Which of the following is closest to the ideas presented in the passage?

- A. Japanese are duty bound selfless people.  
 B. The sense of well-being of the Japanese people gets consistently enhanced due to this systematic departure from the self-interested behaviour.  
 C. Had there been no enhancement of their own well-being, the Japanese people would have not been dutiful.  
 D. Ability to achieve their country's objectives may have enhanced the sense of well-being of Japanese people. However the agency of the Japanese people in their industrial success is probably derived from factors beyond this sense of well-being.  
 E. Japanese people's adherence to ethos of duty, loyalty and goodwill can well be explained within the paradigm of self-interested behaviour.
35. Of the options presented below, which one is the best example for the ideas propounded in the passage? **1.5 Mark**  
 A. 'Change for Equality' was a campaign by women of Iran to remove discrimination against women in their country, Activists of the movement were attacked and jailed by the government, but the campaign continued.  
 B. In January 2011, the Egyptian people came out against the regime to topple it. Their grievances included police atrocities, state emergency laws, lack of free election, and lack of freedom of speech, corruption, unemployment, food price inflation and low minimum wages.  
 C. A worker immolated himself to highlight injustice being perpetrated by the management against the employees in the company.  
 D. The factory workers carried on with the strike in demand for increased wages, even though they were not paid wages for the duration they were on strike.  
 E. A politician went on a hunger strike against corruption which not only galvanised the state government in enacting new laws, but also increased his image in the minds of the voters.
36. Read the sentences given below and choose the option that is best in accordance with the ideas in the passage.  
 I. There is a need to distinguish between the agency aspect and the well-being aspect of a person.  
 II. A person can be conceptualised in terms of either agency or well-being.  
 III. Agency is important, not just instrumentally, for the pursuit of well-being. **1 Mark**  
 A. I only                      B. II only                      C. III only  
 D. I and II                      E. II and III
37. The idea of agency, as used in the passage, is implied in all the options given below, except:  
 A. A student arguing for a grade revision  
 B. A lawyer arguing the case for his rich client  
 C. A politician on *dharna* to gain publicity  
 D. A hungry child crying for food  
 E. A ascetic praying for world peace **1 Mark**
38. Which of the following sentences is grammatically incorrect? **1 Mark**  
 A. Bats are able to fly in the dark.  
 S. Bats can fly in the dark  
 C. Bats have the ability to fly in the dark.  
 D. Bats cannot fly in the dark if it rains.  
 E. Bats have the ability of flying in the dark, if it does not rain.
39. Alfredo, Diego and Lionel are discussing Argentinean football.  
 Alfredo: Argentina was a football powerhouse.  
 Diego: Argentina is a football powerhouse.  
 Lionel: Argentina will be a football powerhouse.
- Which of the following cannot be inferred from the above conversation? **1 Mark**  
 A. Lionel is optimistic about the future.  
 B. Alfredo, Diego and Lionel may disagree on certain things.  
 C. Diego views the present positively.  
 D. Alfredo completely disagrees with Diego.  
 E. Alfredo has positive feelings about the past.
40. Choose the grammatically correct sentence from the options given below. **1 Mark**  
 A. Surprisingly, given the recent labour problems in the factory, the factory manager has enjoyed considerable support from they who had previously challenged his leadership.  
 B. Surprisingly, given the recent labour problems in the factory, the factory manager has enjoyed considerable support from them who had previously challenged his leadership.  
 C. Surprisingly, given the recent labour problems in the factory, the factory manager has enjoyed considerable support from he who had previously challenged his leadership.  
 D. Surprisingly, given the recent labour problems in the factory, the factory manager has enjoyed considerable support from those who had previously challenged his leadership.  
 E. Surprisingly, given the recent labour problems in the factory, the factory manager has enjoyed considerable support from that who had previously challenged his leadership.

41. Ethologists, people who study animal behaviour, have traditionally divided an organism's actions into two categories: learned behaviour (based on experience) and instinctive behaviour (based on genotype). Some current scholars reject this distinction, claiming that all behaviour is a predictable interaction of experience and genotype. **1 Mark**

**Which of the following, if true, most strengthens the arguments made in the sentence above?**

- A. All organisms with identical genotypes and identical experience sometimes respond differently in different situations.
- B. All organisms with different genotypes and identical experience always respond identically in identical situations.
- C. All organisms with similar genotypes and similar experience always respond differently in identical situations.
- D. All organisms with identical genotypes and identical experience always respond identically in identical situations.
- E. All organisms with identical genotypes and different experience always respond identically in identical situations.

42. The benefits of psychotherapy result not only from the advice the therapist gives but also from the supportive relationship offered to the patient. Even though this relationship may cost large amounts of money over many years, most patients interpret the therapist's concern for them as genuine and identify this caring relationship as the primary factor in improving their mental health. However, recent studies have found that only eight percent of therapist/patient relationships continue after the patient terminates formal paid visits. **1 Mark**

**Which of the following is in accordance with the ideas contained in the passage? Choose the best option.**

- A. therapists are equally concerned with moneymaking and their patients' well-being.
- B. reading published articles of reputed psychotherapists will hardly be beneficial.
- C. therapists can always treat mental illness without the use of prescription drugs.
- D. therapists who terminate relationships are likely to improve mental health of their patients.
- E. eight percent of patients will continue to improve after termination of therapy.

43. Most of the Asian countries have trade-deficit with China. Bangladesh's trade deficit with China this year has increased by 35%. Despite large increases in exports to China, Indonesia's trade deficit with China continues to increase. So does that of South Korea, home of Samsung Electronics, one of the world's largest manufacturers of electronic gadgets. **1 Mark**

**Which of the following, if true, would be most inconsistent with the above passage?**

- A. China is the largest manufacturer of parts of electronic gadgets and Samsung Electronics imports parts for their gadgets from China.
- B. Exports to Bangladesh are insignificant in proportion of China's total exports.
- C. Exports to Indonesia from China decreased.
- D. Indonesia's chief exports are natural resources.
- E. China has trade deficit with Iran.

44. All who studied commerce enjoy sports. No tax consultant enjoys sports. All those who enjoy sports love classical music. **1 Mark**

**If the above sentences are true, which of the following also must be true?**

- A. No one who enjoys classical music is a tax consultant by profession.
- B. Every tax consultant enjoys classical music.
- C. No tax consultant enjoys classical music.
- D. No tax consultant studied commerce.
- E. No one who studied commerce enjoy classical music.

45. The head \_\_\_\_\_ was annoyed to see a \_\_\_\_\_ in the soup.

**The option that would best fill the blanks in the above sentence would be:**

- A. chief, house fly
  - B. chef, housefly
  - C. chief, house-fly
  - D. chef, house fly
  - E. chef, house-fly
- 1 Mark**

46. Which word is the opposite of the word 'hypothesize'? **1 Mark**

- A. posit
- B. propose
- C. conjecture
- D. refute
- E. speculate

47. Read the sentences and choose the option that best arranges them in a logical order.

- A. In fact, it is considered as a dumping ground for unwanted people in quite a few organizations.
- B. In many parts of the country, traditional castes such as *Kothari*, *Kotwal*, *Bhandari* and *Bhandarkar* have for generations been dealing in procuring, stocking, distributing goods and merchandise.

- C. This is due to the fact that Indian traders have been trading with many parts of the world.
- D. However, though the concept of warehousing has been prevalent for over 2000 years, the warehouse has not yet obtained due recognition in modern times.
- E. The concept of warehousing or stores function is not new in India. **1 Mark**
- A. E-A-C-D-B    B. E-C-B-D-A    C. A-E-C-D-B  
D. D-B-A-C-E    E. E-D-B-A-C

48. Concurrence means all of the following except:  
A. Agreement    B. Accord    C. Consensus  
D. Coincidence    E. Harmony **1 Mark**

49. Read the sentences and choose the option that best arranges them in a logical order.

- (i) All it has to do is to drive up the inflation rate—examples are the damage Lyndon Johnson's inflationary policies did to the US economy and the damage which consistently pro-inflationary policies have done to the economy of Italy.
- (ii) It is easy, the record shows, for a government to do harm to its domestic economy.
- (iii) Contrary to what economists confidently promised forty years ago, business cycles have not been abolished.
- (iv) They still operate pretty much the way they have been operating for the past 150 years.
- (v) But there is not the slightest evidence that any government policy to stimulate the economy has impact, whether that policy be Keynesian, monetarist, supply -side or neoclassical.

- A. (iii)-(iv)-(ii)-(i)-(v)    B. (iii)-(v)-(ii)-(i)-(iv)  
C. (ii)-(iv)-(i)-(v)-(iii)    D. (ii)-(i)-(iii)-(iv)-(v)  
E. (ii)-(i)-(v)-(iii)-(iv) **1 Mark**

50. When income tax rates are reduced, there is an increase in taxable income, and an increase in taxable income results in increased total income tax revenues for the government. **1.5 Mark**

**Which of the following is analogous to the argument above in terms of its logical features?**

- A. If the city municipal corporation increases taxes on property by 1% it will raise tax revenues, which can be used for garbage disposal management.
- B. The Leader of the Opposition at the Parliament argued that a restriction on the import of Chinese manufacturing products will increase the sales of Indian manufacturing products.

- C. An advertisement using more than 25 words of text will not be read, and when an advertisement is not read, the product is not sold. Therefore, the fewer words an advertisement has, the more effective it will be in promoting its product.
- D. The balance of payment of a country will improve if the country reduces its imports and increases exports.
- E. Citizens earning more than 15 lakh rupees per annum pay at an increased tax rate of 40%. Citizens earning less than 1 lakh rupees per annum can be exempted from paying income taxes without decreasing the revenues of the Income Tax Department.

51. Not wanting to present an unwarranted optimistic picture in the board meeting, the CEO estimated the sales growth \_\_\_\_\_ . **1 Mark**

**The option that will best fill the blank in the above sentence would be:**

- A. strictly    B. liberally    C. fancifully  
D. pessimistically    E. conservatively

**Read the following passage and provide appropriate answers for the questions 52 - 55.**

The idea of demarcating certain areas within the country as special economic zones to promote investment and growth is not new. A large country unable to provide the kind of facilities and environment that can attract foreign investment throughout the country often finds it feasible and attractive to carve up some of its areas where such facilities can be provided. The laws and procedures for setting up new industries are waived to make the area business-friendly with developed infrastructure and a one-window interaction with government. In addition, huge tax benefits are promised to lure investors. China's experience shows that if chalked and implemented with care such a policy can accelerate the flow of capital and technology from abroad and thereby speed up growth.

However, SEZs may not be the best option in all situations to clear the bottlenecks in growth. India's experience with export processing zones (EPZs) bears this out. They have failed in India for the simple reason that the factors that made the SEZs successful in China have been absent here. In India, as in China, EPZs were thought of as a way of providing an escape route from the stranglehold of control that prevailed over the Indian economy. But even while promising to ease the rigours of controls, Indian policy-makers could not give up their penchant for micromanaging from the centre and undoing the promised relaxations with all kinds of qualifications and "guidelines".

Over last two decades India has evolved into a market economy and much of governmental control has disappeared, but the flow of foreign direct investment has not reached anywhere near the levels of China. Besides, infrastructure building has fallen far short of what is required. Even after three years of the enactment of the Electricity Act (2003), private investment in electricity generation is still a trickle with the states refusing to give up the monopoly of their electricity boards in the matter of purchase of the power generated. While swearing by growth, governments at both the centre and the states cite the fiscal responsibility laws to plead their helplessness in making the required investments to improve infrastructure.

Given this situation, the SEZs have apparently been thought of as a simple way out. In its enthusiasm for SEZs the commerce ministry forgot two critical lessons of the Chinese experience, viz., that an SEZ must be of an adequate size to provide opportunities for reaping the benefit of large-scale operations and their number should be few. Every industry or economic activity worth its name is now seeking SEZ status. Proposals are now being floated to invite foreign educational institutions to come to India with promises of SEZ treatment! The finance ministry apprehends a loss of nearly ₹ 1,75,000 crore in direct taxes, customs duties and excise duties over the next five years.

52. The objective of the author in writing the above passage seems to be to **1 Mark**
- highlight the failure of Indian policy makers regarding EPZs.
  - narrate the pros and cons of SEZs.
  - compare between the Indian EPZs and Chinese SEZs.
  - oppose the proliferation of SEZs in India.
  - argue that India should imitate the Chinese policies regarding SEZs.
53. The author's arguments suggest the following conclusions, *except* **1 Mark**
- SEZs may be the best option for countries unable to provide infrastructure and business environment to attract foreign direct investment.
  - SEZs must be large enough to house large scale operations.
  - fiscal responsibility laws actually limit the investment on infrastructure by the Government of India.
  - government of India must limit the number of SEZs.
  - SEZs cause loss of tax revenue for the central Government.

54. The author does not oppose **1 Mark**
- SEZ treatment of foreign educational institutes in India.
  - qualifiers undoing relaxation of government control.
  - tax benefits to strategically promote SEZs.
  - monopoly of state electricity boards in power purchase.
  - lack of Government initiative in infrastructure development.
55. The passage was most likely written in the year:
- |         |         |               |
|---------|---------|---------------|
| A. 1991 | B. 2001 | C. 2003       |
| D. 2006 | E. 2011 | <b>1 Mark</b> |

**Read the following passage and provide appropriate answers for the questions 56 - 57.**

This is one of the unanswered questions that I want to explore. I believe that this is certainly one of the deeper questions about technology. Why do I say so? Without evolution technologies seem to be born independently and improve independently. Each must come from some unexplained mental process, some form of creativity or thinking outside the box that brings it into existence and separately develops it. With evolution, new technologies would be birthed in some precise way from previous ones, albeit with considerable mid-wifing, and develop through some understood process of adaptation. In other words, if we could understand evolution, we could understand the most precious of processes: innovation. But, let me define evolution before I proceed further. The word evolution has two general meanings. One is the gradual development of something, as with the evolution of ballet or the English madrigal. The other is the process by which all objects of some class are related by ties of common descent from the collection of earlier objects. The latter is what I mean by evolution.

56. Which of the following can be inferred from the passage? **1 Mark**
- The author's main concern is to develop a theory of innovation
  - The author is interested in putting forth a theory of technological evolution.
  - The author believes before developing a theory of technological evolution, one needs to investigate whether technology evolves at all.
  - Evolution, as the author puts it, is a sense of common relatedness.
- |                  |                             |              |
|------------------|-----------------------------|--------------|
| A. I and II      | B. I and IV                 | C. II and IV |
| D. I, II and III | E. All the above statements |              |

57. I. In 1867, S. Colum Gilfillan, a sociologist traced the evolution of ships from the dugout canoe to the modern steamship of the day.
- II. Many theories propose the existence of a technology in many forms. From these variations, some perform better and are selected for further use and development.
- III. Till date the people who have thought hardest about the general questions of technology have only been social scientists. They have viewed technology from the outside as stand-alone objects without studying earlier technologies.
- IV. Some technologies, for example, the laser, the jet engine, the radar, the quick sort algorithm and the locomotive just appear, or at least they seem to just appear unlike novel biological species which are versions of earlier objects.

- V. Radar descends from radio but you can vary 1930s radio circuits as radically you like but you will never get radar. Radar requires a different principle.

Assuming the above statements are true, which option would most strengthen the author's premise that the question that he has identified has not been solved as yet? **2 Mark**

- A. I and III  
 B. II and III  
 C. I, III and IV  
 D. II, V and III  
 E. IV, V and III

### SECTION C: QUANTITATIVE ABILITY

58. Three Vice Presidents (VP) regularly visit the plant on different days. Due to labour unrest, VP (HR) regularly visits the plant after a gap of 2 days. VP (Operations) regularly visits the plant after a gap of 3 days. VP (Sales) regularly visits the plant after a gap of 5 days. The VPs do not deviate from their individual schedules. CEO of the company meets the VPs when all the three VPs come to the plant together. CEO is on leave from January 5th to January 28th, 2012. Last time CEO met the VPs on January 3, 2012. When is the next time CEO will meet all the VPs?

**1 Mark**

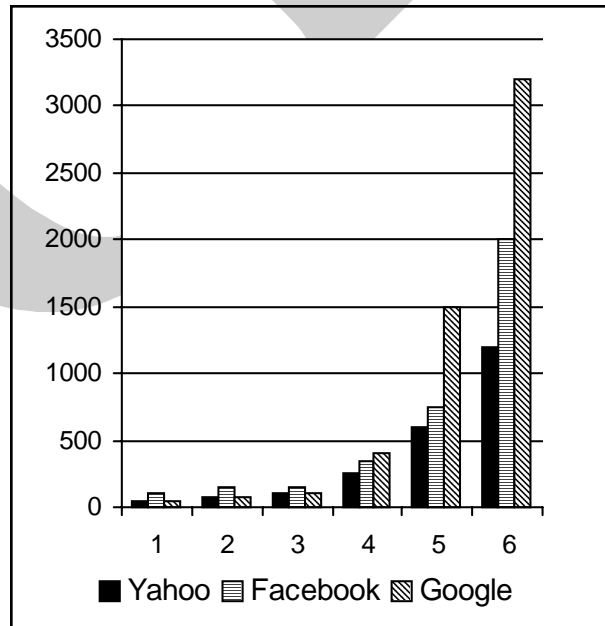
- A. February 6, 2012      B. February 7, 2012  
 C. February 8, 2012      D. February 9, 2012  
 E. None of the above

59. Ramesh analysed the monthly salary figures of five vice presidents of his company. All the salary figures are integers. The mean and the median salary figures are ₹ 5 lakh, and the only mode is ₹ 8 lakh. Which of the options below is the sum (in ₹ lakh) of the highest and the lowest salaries?

- A. 9      B. 10      C. 11  
 D. 12      E. None of the above. **1 Mark**

**Answer question nos. 60 - 62 based on the following information**

The following graph shows the revenue (in \$ million) of three companies in their initial six years of operations, in an economy which is characterised by a persistent inflation.



60. In 2010, which could be a valid statement about the revenues (adjusted for inflation) of these three companies? **1 Mark**

- A. Revenues of all three companies were equal.  
 B. Revenues of all three companies could be equal.  
 C. Revenue of Yahoo was definitely less than Facebook which was definitely less than Google.  
 D. Total of Yahoo and Facebook was definitely higher than that of Google.  
 E. None of the above.

61. The difference in the average percentage increase in revenues, from 4th to 6th year, of Yahoo and Facebook is: **1 Mark**

- A. 35%    B. 40%    C. 45%    D. 50%    E. 55%

62. What would have been Facebook's revenue (in \$ million) in its sixth year of operation if the company had matched Google's percentage growth in revenues from the fifth to the sixth year? Choose the option that is nearest to the answer.  
 A. 1600                      B. 1700                      C. 1900  
 D. 2100                      E. None of the above

**1 Mark**

63. Tina, Mina, Gina, Lina, and Bina are 5 sisters, aged in that order, with Tina being the eldest. Each of them had to carry a bucket of water from a well to their house. Their buckets' capacities were proportional to their ages. While returning, equal amount of water got splashed out of their buckets. Who lost maximum amount of water as a percentage of the bucket capacity?  
 A. Tina                      B. Mina                      C. Gina  
 D. Lina                      E. Bina

**1 Mark**

64. Ram, a farmer, managed to grow shaped-watermelons inside glass cases of different shapes. The shapes he used were: a perfect cube, hemi-spherical, cuboid, cylindrical along with the normal spherical shaped watermelons. Thickness of the skin was same for all the shapes. Each of the glass cases was so designed that the total volume and the weight of all the water-melons would be equal irrespective of the shape.

**1 Mark**

A customer wants to buy water-melon for making juice, for which the skin of the water-melon has to be peeled off, and therefore is a waste. Which shape should the customer buy?

- A. Cube  
 B. Hemi-sphere  
 C. Cuboid  
 D. Cylinder  
 E. Normal spherical
65. A man borrows ₹ 6000 at 5% interest, on reducing balance, at the start of the year. If he repays ₹ 12 at the end of each year, find the amount of loan outstanding, in ₹, at the beginning of the third year.  
 A. 3162.75                      B. 4125.00                      C. 4155.00  
 D. 5100.00                      E. 5355.00

**1 Mark**

66. A spherical metal of radius 10 cm is molten and made into 1000 smaller spheres of equal sizes. In this process the surface area of the metal is increased by:  
 A. 1000 times                      B. 100 times                      C. 10 times  
 D. No change                      E. None of the above

**1 Mark**

67. Gopal sells fruit juice mixture using orange juice and pineapple juice. Gopal prepares this mixture by drawing out a jug of orange juice from a 10 litre container filled with orange juice, and replacing it with pineapple juice. If Gopal draws out another jug

of the resultant mixture and replaces it with pineapple juice, the container will have equal volumes of orange juice and pineapple juice. The volume of the jug, in litres, is

- A. 2                                      B.  $> 2$  and  $\leq 2.5$   
 C. 2.5                                      D.  $> 2.5$  and  $\leq 3$   
 E.  $\geq 3$

68. Nikhil's mother asks him to buy 100 pieces of sweets worth ₹ 100/-. The sweet shop has 3 kinds of sweets, *kajubarfi*, *gulabjamun* and *sandesh*. *Kajubarfi* costs ₹ 10/- per piece, *gulabjamun* costs ₹ 3/- per piece and *sandesh* costs 50 paise per piece. If Nikhil decides to buy at least one sweet of each type, how many *gulabjamuns* should he buy?

**1.5 Mark**

- A. 1                                      B. 2                                      C. 3  
 D. 4                                      E. 5

69. A potter asked his two sons to sell some pots in the market. The amount received for each pot was same as the number of pots sold. The two brothers spent the entire amount on some packets of potato chips and one packet of banana chips. One brother had the packet of banana chips along with some packets of potato chips, while the other brother just had potato chips. Each packet of potato chips costs ₹ 10/- and the packet of banana chips costs less than ₹ 10/-. The packets of chips were divided between the two brothers so each brother received equal number of packets. How much money should one brother give to the other to make the division financially equitable?

**2 Mark**

- A. 1                                      B. 2                                      C. 4  
 D. 5                                      E. 7

70. A city has a park shaped as a right angled triangle. The length of the longest side of this park is 80m. The Mayor of the city wants to construct three paths from the corner point opposite to the longest side such that these three paths divide the longest side into four equal segments. Determine the sum of the squares of the lengths of the three paths.

- A. 4000 m                      B. 4800 m                      C. 5600 m  
 D. 6400 m                      E. 7200 m

**2 Mark**

**Answer question 71 and 72 based on the following information.**

Ramya, based in Shanpur, took her car for a 400 km trip to Rampur. She maintained a log of the odometer readings and the amount of petrol she purchased at different petrol pumps at different prices (given below). Her car already had 10 litres of petrol at the start of the journey, and she first purchased petrol at the start of the journey, as given in table below, and she had 5 litres remaining at the end of the journey.



	Odometer Reading (Km)	Petrol purchased (Litre)	Rate of Petrol (₹/litre)
<b>Start of journey</b>	400	20	30
	600	15	35
	650	10	40
<b>End of journey</b>	800		

71. What has been the mileage (in kilometres per litre) of her car over the entire trip? **1 Mark**  
 A. 8.00                      B. 8.50                      C. 9.00  
 D. 9.50                      E. None of the above

72. Her car's tank-capacity is 35 litres. Petrol costs ₹ 45/ litre in Rampur. What is the minimum amount of money she would need for purchasing petrol for the return trip from Rampur to Shanpur, using the same route? Assume that the mileage of the car remains unchanged throughout the route, and she did not use her car to travel around in Rampur.  
 A. 1714                      B. 1724                      C. 1734  
 D. 1744                      E. Data insufficient to answer.  
**1.5 Mark**

73. A medical practitioner has created different potencies of a commonly used medicine by dissolving tablets in water and using the resultant solution.  
*Potency 1 solution: When 1 tablet is dissolved in 50 ml, the entire 50 ml is equivalent to one dose.*  
*Potency 2 solution: When 2 tablets are dissolved in 50 ml, the entire 50 ml of this solution is equivalent to 2 doses,*  
 ... and so on.

This way he can give fractions of tablets based on the intensity of infection and the age of the patient.

For a particular patient, he administers 10 ml of potency 1, 15 ml of potency 2 and 30 ml of potency 4. The dosage administered to the patient is equivalent to **1 Mark**

- A. > 2 and ≤ 3 tablets  
 B. > 3 and ≤ 3.25 tablets  
 C. > 3.25 and ≤ 3.5 tablets  
 D. > 3.5 and ≤ 3.75 tablets  
 E. > 3.75 and ≤ 4 tablets

74. Ram prepares solutions of alcohol in water according to customers' needs. This morning Ram has prepared 27 litres of a 12% alcohol solution and kept it ready in a 27 litre delivery container to be shipped to the customer. Just before delivery, he finds out that the customer had asked for 27 litres of 21% alcohol solution. To prepare what the customer wants, Ram replaces a portion of 12%

solution by 39% solution. How many litres of 12% solution are replaced? **1 Mark** A. 5

- B. 9                      C. 10  
 D. 12                      E. 15

75. City Bus Corporation runs two buses from terminus A to terminus B, each bus making 5 round trips in a day. There are no stops in between. These buses ply back and forth on the same route at different but uniform speeds. Each morning the buses start at 7 AM from the respective terminuses. They meet for the first time at a distance of 7 km from terminus A. Their next meeting is at a distance of 4 km from terminus B, while travelling in opposite directions. Assuming that the time taken by the buses at the terminuses is negligibly small, and the cost of running a bus is ₹ 20 per km, find the daily cost of running the buses (in ₹). **1 Mark**

- A. 3200                      B. 4000                      C. 6400  
 D. 6800                      E. None of the above

76. Shyam, a fertilizer salesman, sells directly to farmers. He visits two villages A and B. Shyam starts from A, and travels 50 metres to the East, then 50 metres North-East at exactly 45° to his earlier direction, and then another 50 metres East to reach village B. If the shortest distance between villages A and B is in the form of  $a\sqrt{b+\sqrt{c}}$  metres, find the value of  $a + b + c$ .

- A. 52                      B. 54                      C. 58  
 D. 59                      E. None of the above **2 Mark**

77. Three truck drivers, Amar, Akbar and Anthony stop at a road side eating joint. Amar orders 10 rotis, 4 plates of tadka, and a cup of tea. Akbar orders 7 rotis, 3 plates of tadka, and a cup of tea. Amar pays ₹ 80 for the meal and Akbar pays ₹ 60. Meanwhile, Anthony orders 5 rotis, 5 plates of tadka and 5 cups of tea. How much (in ₹) will Anthony pay? **1.5 Mark**

- A. 75                      B. 80                      C. 95  
 D. 100                      E. None of the above.

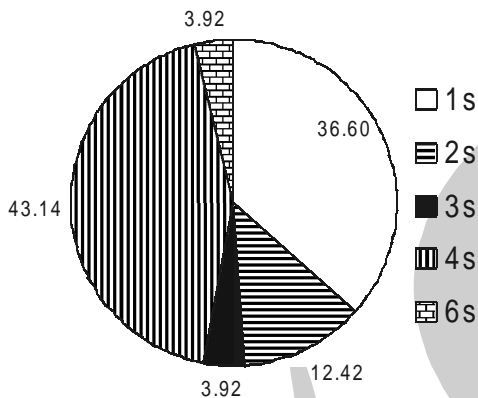
78. A computer program was tested 300 times before its release. The testing was done in three stages of 100 tests each. The software failed 15 times in Stage I, 12 times in Stage II, 8 times in Stage III, 6 times in both Stage I and Stage II, 7 times in both Stage II and Stage III, 4 times in both Stage I and Stage III, and 4 times in all the three stages. How many times the software failed in a single stage only? **1 Mark**

- A. 10                      B. 13                      C. 15  
 D. 17                      E. 35

79. Suresh, who runs a bakery, uses a conical shaped equipment to write decorative labels (e.g., Happy Birthday etc.) using cream. The height of this equipment is 7 cm and the diameter of the base is 5 mm. A full charge of the equipment will write 330 words on an average. How many words can be written using three fifth of a litre of cream?  
 A. 45090      B. 45100      C. 46000  
 D. 43200      E. None of the above **1.5 Mark**

**Answer question nos. 80 - 81 based on the following information.**

The following pie chart shows the percentage distribution of runs scored by a batsman in a test innings.



80. If the batsman has scored a total of 306 runs, how many 4s and 6s did he hit? **1 Mark**  
 A. 31 and 3 respectively  
 B. 32 and 2 respectively  
 C. 32 and 3 respectively  
 D. 33 and 1 respectively  
 E. 33 and 2 respectively
81. If 5 of the dot balls had been hit for 4s, and if two of the shots for which the batsman scored 3 runs each had fetched him one run instead, what would have been the central angle of the sector corresponding to the percentage of runs scored in 4s? **1 Mark**  
 A. 160      B. 163      C. 165  
 D. 167      E. 170
82. Carpenter Rajesh has a circular piece of plywood of diameter 30 feet. He has cut out two disks of diameter 20 feet and 10 feet. What is the diameter of the largest disk that can be cut out from the remaining portion of the plywood piece? **2 Mark**  
 A. > 8.00 feet and  $\leq$  8.20 feet  
 B. > 8.21 feet and  $\leq$  8.40 feet  
 C. > 8.41 feet and  $\leq$  8.60 feet  
 D. > 8.61 feet and  $\leq$  8.80 feet  
 E. > 8.81 feet and  $\leq$  9.00 feet
83. Lionel and Ronaldo had a discussion on the ages of Jose's sons. Ronaldo made following statement about Jose's sons:

- (i) Jose has three sons.  
 (ii) The sum of the ages of Jose's sons is 13.  
 (iii) The product of the ages of the sons is the same as the age of Lionel.  
 (iv) Jose's eldest son, Zizou weighs 32 kilos.  
 (v) The sum of the ages of the younger sons of Jose is 4.  
 (vi) Jose has fathered a twin.  
 (vii) Jose is not the father of a triplet.  
 (viii) The LCM of the ages of Jose's sons is more than the sum of their ages.

Which of the following combination gives information sufficient to determine the ages of Jose's sons? **1 Mark**

- A. (i), (ii), (iii) and (iv)      B. (i), (ii), (iv) and (vi)  
 C. (i), (ii), (iii) and (v)      D. (i), (ii), (v) and (vii)  
 E. (i), (ii), (v) and (vi)

84. Ram and Shyam form a partnership (with Shyam as working partner) and start a business by investing ₹ 4000 and ₹ 6000 respectively. The conditions of partnership were as follows:

- In case of profits till ₹ 200,000 per annum, profits would be shared in the ratio of the invested capital.
- Profits from ₹ 200,001 till ₹ 400,000 Shyam would take 20% out of the profit, before the division of remaining profits, which will then be based on ratio of invested capital.
- Profits in excess of ₹ 400,000, Shyam would take 35% out of the profits beyond ₹ 400,000, before the division of remaining profits, which will then be based on ratio of invested capital.

If Shyam's share in a particular year was ₹ 367000, which option indicates the total business profit (in ₹) for that year? **1 Mark**

- A. 520,000      B. 530,000      C. 540,000  
 D. 550,000      E. None of the above

85. A property dealer bought a rectangular piece of land at ₹ 1000/sq ft. The length of the plot is less than twice its breadth. Due to its size, there were no buyers for the full plot. Hence he decided to sell it in smaller sized pieces as given below.

The largest square from one end was sold at ₹ 1200/sqft. From the remaining rectangle the largest square was sold at ₹ 1150/sqft.

Due to crash in the property prices, the dealer found it difficult to make profit from the sale of the remaining part of the land. If the ratio of the perimeter of the remaining land to the perimeter of the original land is 3:8, at what price (in ₹) the remaining part of the land is to be sold such that the dealer makes an overall profit of 10%?

- A. 500/sqft      B. 550/sqft      C. 600/sqft  
 D. 650/sqft      E. None of the above **2 Mark**

# Answer Key XAT 2012

1	D	21	E	41	D	61	E	81	E*
2	E	22	B	42	A	62	A	82	C
3	D	23	D	43	C	63	E	83	E
4	B	24	E	44	D	64	E	84	D
5	C	25	E	45	B	65	C	85	B
6	B	26	D	46	D	66	E		
7	E	27	B	47	B	67	D		
8	E	28	D	48	E	68	A		
9	D	29	D	49	E	69	B		
10	E	30	D	50	C	70	C		
11	E	31	B	51	E	71	A		
12	D	32	A	52	D	72	D		
13	B	33	A	53	C	73	B		
14	A	34	D	54	C	74	B		
15	E	35	E	55	D	75	D		
16	C	36	D	56	A	76	E		
17	A	37	E	57	E	77	D		
18	C	38	E	58	C	78	B		
19	B	39	D	59	A	79	E		
20	B	40	D	60	*	80	E		

# Solutions XAT 2012

## SECTION A: DECISION MAKING

1. D The rules of the Members council say that no two officers shall serve on the same committee. Ajit Singh and Chaitanya Rao have been *nominated* for officer status, they have *not been confirmed as officers* yet. Thus, the writer has overlooked this flaw mentioned in option D. Option A is incorrect as both of them can be members of the Disciplinary Committee not necessarily as officers. Options B, C and E do not affect the reasoning of the letter in any sense.
2. E All other options except E are biased for/against one of the two officers. Only E suggests a reasonable and exhaustive solution. Both the officers should resign from either of the committee so that they there is only one officer in both the committees, so that the rule is not violated.
3. D The information given says that Limo captured 30% market share which was 200% of the expected share. It does not mean that the sales of Limo increased by 200%. Moreover, we don't know whose share Limo ate into to capture its share, it could well have come off other competitors. Hence we can't say that *Baft* and *Hebe* saw their market share decline by 10% due to Limo. The information doesn't in sense talk about the desirability of *Baft* and *Hebe* and about its features. So, both the conclusions can't be made. Hence the correct option is D.
4. B The best way to deal with unhappy customers is to suggest them to buy other models and offering to them discounts and gifts. This would not only make the customers happy but would also mean more business for the company. Option A is incorrect since suggesting the customers to wait will only aggravate the problem. Option C, D and E don't deal with issue of making the customers happy.
5. C Option A is unfair since Mr. Murugan is not informed about the delivery date and expected delay. Option B is incorrect for the same reason that Mr. Murugan is not informed about Ginger Automobiles and its announcements. Option D is correct as it maximizes Mr. Ahmed's cash flow as well informs Mr. Murugan of the delivery problem. The rest of the two options are incorrect since they do not maximize Mr. Ahmed's cash flow and inform Mr. Murugan about the delivery respectively.

### For questions 6 to 9:

- (i) If Tina plans to go by train then she has to leave her home 10 minutes before the train departure time and after arriving at Delhi she will take  $30 + 5 = 35$  minutes to reach the work place.
- (ii) If Tina plans to go by flight then she has to leave her home 4 hours before the flight departure time and after arriving at Delhi she will take 90 minutes to reach the work place.
- (iii) If Tina plans to return by train then she has to leave her work place  $30 + 5 = 35$  minutes before the train departure time and after arriving at Jamshedpur she will take  $5 + 5 = 10$  minutes to reach home.
- (iv) If Tina plans to return by flight then she has to leave her work place  $90 + 60 = 150$  minutes before the flight departure time and after arriving at Ranchi she will take 3 hours to reach home.

Additional information:

### Onward Journey:

	Departure	Leave home (latest by)	Reach work place (earliest by)	Work finished (earliest by)
<b>Flight</b>				
<b>AI-9810</b>	8:00 hrs	4:00 hrs	11.15 hrs (1)	17.15 hrs (1)
<b>AI 810</b>	15.25 hrs	11.25 hrs	18:40 hrs (1)	00.40 hrs (2)
<b>IT 3348</b>	19.20 hrs	15.20 hrs	22:35 hrs (1)	4:35 hrs (2)
<b>Train</b>				
<b>12801</b>	6:45 hrs	6:35 hrs	5:25 hrs (2)	11:25 hrs (2)
<b>12443</b>	15:55 hrs	15:45 hrs	11:10 hrs (2)	17:10 hrs (2)

**Note :** Number inside ( ) represents the day w.r.t the one on which she leaves for Delhi.

### Return Journey:

	Departure	Leave work place (latest by)	Reach home (earliest by)
<b>Flight</b>			
<b>AI-9809</b>	5:50 hrs	3:20 hrs	10:35 hrs (1)
<b>AI 809</b>	11:00 hrs	8:30 hrs	15:45 hrs (1)
<b>IT 3347</b>	17:10 hrs	14:40 hrs	21:55 hrs (1)
<b>Train</b>			
<b>12802</b>	22:20 hrs	21:45 hrs	20:15 hrs (2)
<b>12444</b>	17:20 hrs	16:45 hrs	10:45 hrs (2)

**Note:** Number inside the ( ) represent the day w.r.t. the one on which she leaves for Jamshedpur.

6. B **Option A:** AI 9810 and return by IT 3347.  
She will leave at 4:00 hrs on day 1 and return at 21:55 hrs on day 2.  
Total time for which she is out of Jamshedpur = 41 hrs and 55 minutes.
- Option B:** AI 9810 and return by train 12802.  
She will leave at 4:00 hrs on day 1 and return at 20:15 hrs on day 2.  
Total time for which she is out of Jamshedpur = 40 hrs and 15 minutes.
- Option C:** IT 3348 and return by AI 9809.  
She will leave at 15:20 hrs on day 1 and return at 10:35 hrs on day 3.  
Total time for which she is out of Jamshedpur = 43 hrs and 15 minutes.
- Option D:** Train 12443 and return by train 12444.  
She will leave at 15:45 hrs on day 1 and return at 10:45 hrs on day 4.  
Total time for which she is out of Jamshedpur = 67 hrs.
- Option E:** AI 9810 and return by train 12444.  
She will leave at 4:00 hrs on day 1 and return at 10:45 hrs on day 3.  
Total time for which she is out of Jamshedpur = 54 hrs and 45 minutes.

Hence, best option is option B.

7. E **Option A:** Train 12443 and return by train 12444.  
She will leave at 15:45 hrs on day 1, complete the work between 9:00 hrs and 17:00 hrs on day 3 and return at 10:45 hrs on day 4.  
Total time for which she is out of Jamshedpur = 67 hrs.

**Option B:** Train 12801 and return by train 12802.  
She will leave at 6:35 hrs on day 1, complete the work between 9:00 hrs and 17:00 hrs on day 2 and return at 20:15 hrs on day 3.  
Total time for which she is out of Jamshedpur = 61 hrs and 40 minutes.

**Option C:** AI 9810 and return by AI 9809.  
She will leave at 4:00 hrs on day 1, complete the work between 9:00 hrs and 17:00 hrs on day 2 and return at 10:35 hrs on day 3.  
Total time for which she is out of Jamshedpur = 54 hrs and 35 minutes.

**Option D:** AI 810 and return by AI 9809.  
She will leave at 11:25 hrs on day 1, complete the work between 9:00 hrs and 17:00 hrs on day 2 and return at 10:35 hrs on day 3.  
Total time for which she is out of Jamshedpur = 47 hrs and 10 minutes.

**Option E:** IT 3348 and return by IT 3347.  
She will leave at 15:20 hrs on day 1, complete the work between 9:00 hrs and 14:40 hrs on day 2 and return at 21:55 hrs on day 2.  
Total time for which she is out of Jamshedpur = 30 hrs and 35 minutes.

Hence, option (E) is the correct answer.

8. E **Option A:** Train 12443 and return by train 12444.  
She will leave at 15:45 hrs on 9<sup>th</sup> of January and return at 10:45 hrs on 12<sup>th</sup> of January.  
Total time for which she is out of Jamshedpur = 67 hrs.

**Option B:** Train 12443 and return by AI 9809.  
She will leave at 15:45 hrs on 9<sup>th</sup> of January and return at 10:35 hrs on 11<sup>th</sup> of January.  
Total time for which she is out of Jamshedpur = 42 hrs and 50 minutes.

**Option C:** She cannot return by train 12801 because it does not run from Delhi to Jamshedpur.  
Hence, this option is eliminated.

**Option D:** She cannot return by train 12801 because it does not run from Delhi to Jamshedpur.  
Hence, this option is eliminated.

**Option E:** AI 9810 and return by AI 9809.  
She will leave at 4:00 hrs on 9<sup>th</sup> of January and return at 10:35 hrs on 10<sup>th</sup> of January.  
Total time for which she is out of Jamshedpur = 30 hrs and 35 minutes.

Hence, option E is the correct answer.

9. D **Option A:** Train 12801 and return by IT 3347.  
She will have to wait from 11:25 hrs to 14:40 hrs on the same day. Hence, total waiting period is 3 hrs and 15 minutes.

**Option B:** Train 12443 and return by train 12802.  
She will have to wait from 17:10 hrs to 21:45 hrs on the same day. Hence, total waiting period is 4 hrs and 35 minutes.

**Option C:** AI 9810 and return by train 12802.  
She will have to wait from 17:15 hrs to 21:45 hrs on the same day. Hence, total waiting period is 4 hrs and 30 minutes.

**Option D:** AI 810 and return by AI 9809.  
She will have to wait from 00:40 hrs to 3:20 hrs on the same day. Hence, total waiting period is 2 hrs and 40 minutes.

**Option E:** IT 3348 and return by AI 809.  
She will have to wait from 04:35 hrs to 08:30 hrs on the same day. Hence, total waiting period is 3 hrs and 55 minutes.

Hence, option D is the correct answer.

10. E Including all the BAG members in the decision making process would make them more responsible and involved in the project. Thus, option E is a good way of dealing with the problem of rescheduling the ERP implementation. Option A only looks at a probable deadline date but doesn't deal with the core problem of how it will be met. Option B would not solve the problem since the problem is not about lack of professional advice but how other members can be made receptive to change in the plans. Option C is biased as it overlooks the older members. Option D is incorrect and not in line with the passage, it is nowhere mentioned that external consultants are slow.

11. E Unilateral decision making by Mr. Shiv is the cause for the problems faced by BAG. He did not take the other members into confidence while committing to the deadline. Hence, option E is correct. Option A is not the immediate cause of the problem. Option B is incorrect because we can't comment on the competence of the consultant, moreover he wasn't directly responsible for the problem. Options C and D are out of scope since it is not mentioned that there was any lack of information or fighting between members in the ERP project.

12. D Option A and B do not solve the problem in any way. Resigning or firing old members does not address the problem in any way. Option C is unfair since it sidelines the old members and their concern, neither does it guarantee that the same problem won't be faced with the new members. Option E is too relaxed to work out in such a crisis like situation. It would not be intelligent to arrange for out-bound programs when deadlines need to be met. Option D is correct, it addresses the problem of extra work load by hiring extra resources along with developing specialized work-routines.

13. B Ms. Teknikwali's lack of faith on older members to implement new ideas is hinted through her action of inducting freshly graduated MBAs from premier B-schools for the very purpose of developing new ideas. Mr. Shiv committing to a 6 month deadline in place of 14 months hints at his intention of impressing Ms. Teknikwali. Thus, Option A and C are both hinted at in the passage. It has also been mentioned in the passage that though Ms. Teknikwali was aware of the latest in ERP technology, she was not equally abreast with the implementation of the same. Mr. Shiv's lack of understanding regarding the sensitivities of the older members is evident from his unanimous decisions of working on weekends and reprimanding older members. This negates options D and E too. The passage does not mention or hint at any problems of getting along between the younger and the older members of BAG. Thus, option B is correct.

14. A Option A is the best way that Ms. Teknikwali could have adopted to deal with the BAG group. The members were experienced and knew about the strengths and weaknesses of the BAG group. Options B and E are negative approaches that talk about scraping the entire team and breaking it down to sub-groups respectively. This does not make use of the years of experience of the group members. Option C talks about hiring an external consultant for interacting with the BAG which meant she won't get any first-hand experience. Option D is an indirect approach for getting to know one's own company.

15. E The BAG group had a mixture of experienced as well as newly graduated employees; still it could not implement the ERP package. Thus, option A does not follow from the passage. Option B is incorrect as there is nothing in the given case that

suggests that young people from top B-schools wouldn't have faced problems or have implemented ERP successfully. Similarly, we have no information regarding efficiency of employees who are networked with stakeholders. Thus, option C is ruled out. Option D is incorrect as a team of problemsolvers and those who know the latest technology does not guarantee success in ERP. Option E is correct; people involved in operations for a long time along with those who know the latest technology would work in implementation of ERP package. This is so because along with the knowledge of technology, it is imperative to have relevant experience to overcome road blocks in the implementation of such a package.

16. C Mr. Dev would like to have Bal Singh as his driver as he is experienced, trustworthy and a stable choice. Bal Singh meets the criteria of Mr. Dev's family too who do not want a young driver. Mani is young and so doesn't meet the criteria. Sunder is experienced but not stable. Chethan is willing to work long term but his services have been offered on a temporary basis. Chintan is inexperienced and unstable.
17. A Dev's most preferred employee would be Bal Singh as he is both stable and trustworthy. His least preferred choice would be Chintan who is being offered on a temporary basis (which makes him unstable) by a competing firm. Also, it can be a ploy on the part of the competitor to know the inside information of Mr. Dev's company. This makes him untrustworthy too and thus, Mr. Dev's least preferred choice. Family members do not want a young driver so their least preferred choice would be Mani and not Chintan. Thus, statement II is not in conformance with the given information. Statement III is also not in conformance with the information. We do not have sufficient information regarding his most preferred choice and so it can be anyone out of the other four except Bal Singh who has a very similar profile to Ram Singh which created discontent among senior employees. Hence the correct answer is statement I which is option A.
18. C Ram Singh was a cause of concern for the HR manager because he provided insider information to Mr. Dev which used to irk the senior members. Bal Singh has a profile very similar to Ram Singh and thus, the HR manager would never like to take him on board.
19. B Compensating the teachers who volunteer to work on weekends is a good solution to deal with unhappy teachers. It is fair on the part of teachers to get additional incentives for coming on a weekend. Option A doesn't deal with the problem. Option C, appointing a committee of teachers, management and parents, is too impractical. Option D is biased as a committee of staunch supporters of the current practices would not consider the grievances of the teachers. Option E is incorrect because it does not show the principal as fair and just.

20. B Statements II and IV are good recommendations that deal with the problem of unhappy teachers. They not only help them understand the issues at hand but also soothe their (teachers') discomfort. Statement I does not help calm the teachers in any way. Statement III is unrelated to the problem. Hence, option B with Statements II and IV is the correct choice.
21. E Ethics as defined in the beginning of the case states that it is an individual's code for society survival. Naresh defines his society including himself, his family members, his employees and their family members. His action of paying the bribe is aimed at the survival and well-being of 'his society' and so he is being totally ethical. Thus, option E is the correct choice.
22. B Ethics is an individual's code for society survival. Naresh's society boundaries do not include his customers. Hence for him using inferior quality material was ethical as this kept prices down and customers happy (mentioned in the passage). Srikumar believed that the contractors need to stick together against any external treat. Hence Both Naresh and Srikumar are ethical in this case.
23. D Option D is correct. Morals are defined as society's code for individual survival. It is mentioned in the case that getting involved in court cases is a serious threat to an individual's business and leads to various unpredictable outcomes. By not speaking up, contractors ensured their own survival. They stopped Naresh from speaking up too and helped in his survival as well. Thus, option D is correct.
24. E Manohar would oppose the proposal because now he would be judged on three parameters instead of one and he may not be that good on the new criteria. He would have to definitely work harder to maintain his 'highest earning employee' status. Thus, option E is correct. Options B and D are ambiguous and can't be stated concretely. Option A is incorrect for the word 'favorable position'. Being highest paid does not mean he has a favorable or unfavorable position. Option C is ambiguous too because we don't know if the relative importance of the three parameters would not be specified later.
25. E The main reason for delaying the implementation of the proposal for a month is that the management would need time to think it out and get consensus from concerned employees. This makes option E correct. Options A and B give trivial reasons that the management would choose to overlook. Option C is irrelevant as it questions the competence of the GM which is certainly incorrect. Option D states that GM would require time to implement the plan, which is incorrect. It is the management in its entirety that implements the plan. Thus, the delay has nothing to do with the GM. This rules out option D.

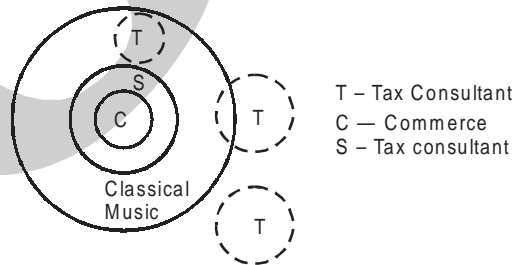
## SECTION B: ENGLISH LANGUAGE ABILITY AND LOGICAL REASONING

26. D The phrase 'on a wing and a prayer' means being in a bad condition and just managing to do a task. Thus, it can be inferred that the Indian team was under prepared (which is option D) and hoping to sail through the matches on a prayer.
27. B Options A, C and D are in present tense while the sentence requires a past tense which is only in option B. Option E is incorrect because *ever* doesn't fit in after *before*. Thus, option B is the correct choice.
28. D Options B, C, and E are implied in the given sentence. Option A can somewhat be interpreted from the sentence, that AC Milan was successful in the sixties, though the usage of 'help' makes this option debatable. The second part of the sentence

indicates that a quarter of a century (25 years) later than the sixties, which comes out to be in the eighties (as mentioned in option B) AC Milan was successful even though the libero was killed off. Option C is easily interpreted from the sentence that the libero was introduced in the sixties as the Italian default and it remained so for another quarter of a century before getting killed off. Since the libero was killed in the eighties, the Italians seldom used it since late eighties. So, option E is implied as well. The sentence says that AC Milan was successful along with the libero and later without a libero too, but it never says he wasn't successful himself during those twenty five years. Thus, option D is not implied and is clearly a better choice over option A.

29. D All options except D are antonyms of each other. Study and analyse are synonyms of each other. Hence, option D is the correct choice.
30. D The argument states that the literacy rate fell between 1991 and 2001 and rose again in the period 2001-2006 concluding that India progressed in terms of literacy rate. It says that the drop in the rate from 1991 to 2001 was greater than the rise in the period 2001-2006 which does not indicate progress from 1991 to 2006 since there is a net fall in the literacy rate during this period. Thus, option D refutes the conclusion drawn in the argument.
31. B 'Embezzlement' means fraudulent appropriation of property by a person to whom it has been entrusted. Thus, Option B is correct.
32. A The paragraph must open with option E as it introduces the topic of factors influencing forecasts. A follows E as it classifies the factors mentioned in E. C clearly has to come after A since it gives 'another way to classify' these factors. Sentences D and B follow in that order since that is how they are mentioned in option C.
33. A Option A is true as it is mentioned in the last lines of the second paragraph. Consider these lines- 'the fact that two variables may be so related...does not imply that...value of one can be obtained from the other...' Thus option A is the correct choice.
34. D Option D summarizes the ideas mentioned in the passage. An individual may benefit from his agency by enjoying greater well-being even though the factors which give rise to such an agency are beyond the well-being aspect. The Japanese people work hard as a result of their individual agencies. This hard work results in industrial success which ultimately contributes to their well-being. The reason for them exhibiting such behavior, of duty, loyalty and goodwill lies not in their pursuit for this well-being; rather it is a result of their agency. Hence, option D is in line with the ideas mentioned in the passage.
35. E Option E summarizes the ideas mentioned in the passage. The politician's 'agency aspect' is seen in the fact that his fast helped in galvanizing the state government to enact new laws and his 'well-being aspect' is fulfilled as he has earned new respect in the minds of the voters. Hence, the correct answer is option E.
36. D Statement I comes directly from the first line of the second paragraph, 'To recognize the distinction between...' Statement III is also mentioned in the passage, 'Agency may be seen as important (not just instrumentally...but also intrinsically)'. Statement II is incorrect since the passage clearly states that agency and well-being are not independent of each other, each individual has a little of both and hence they can't be conceptualized in terms of either one of them alone.
37. E In all the options except E the subject pursues his agency aspects-goals, commitments, values, etc. and as a result hopes to fulfill his well-being aspect. An ascetic is one, who has renounced all material comforts of the world and leads a life of self-discipline. Here, he hopes to fulfill just his agency aspect without caring for his well being.
38. E 'Ability of' is incorrect usage. The preposition used with ability is 'to'. Hence, option E is grammatically incorrect.
39. D All options except D are inferred from the conversation. Alfredo talks about Argentina being a football powerhouse in the past, while Diego talks about the team being a powerhouse in the present. The two are talking about different time frames and hence it can't be inferred that either of them may completely disagree with the other.

40. D The pronoun used in this sentence should be third person singular, since it refers to 'people' who had challenged the manager earlier but now support him. 'Those' is the correct pronoun that should be used here. Hence, option D is correct.
41. D The argument states that ethnologists divide an organism's actions as learned i.e. experience based and instinctive i.e. genotype based behavior. Some current scholars reject this distinction by saying that all animal behavior is a result of predictable interaction of experience and genotype. This means if all organisms have identical genotype and all of them undergo identical experience, they would exhibit identical behavior. Option D strengthens the claim made by the current scholars by stating the same.
42. A Therapists continue a therapeutic relationship until the patient is retained to stability and can function normally. Once this is achieved the therapist will not have sessions with the patient as (i) s/he has retained the patients' well-being (ii) each therapeutic session has to be paid for. The last line of the information mentions that very few therapist/patient relationships continue after the paid sessions are terminated. Hence, the correct answer is option 1. Option A is correct.
43. C Trade deficit means the negative balance of trade in which a country's imports exceed its exports. Option C is inconsistent because had the exports from China to Indonesia decreased, Indonesia's trade deficit would not have increased.
44. D The Venn diagram given below explains how each of the other options are incorrect except option D.



Since the set of tax consultants can lie anywhere outside sports i.e. completely outside the set of classical music, partly in it or completely outside it, we cannot say all tax consultants or no tax consultant enjoys classical music. This clearly negates options A, B and C. Option E is false as well since the set of commerce lies within the sports set and the sports set in turn lies within classical music. Which means the commerce set lies within classical music too. The commerce set lies within the sports set. The tax consultant set and sports set are disjointed sets. Thus, commerce and tax consultant sets are disjointed too. This makes D the correct option.

45. B Head and chief mean the same thing, so it is incorrect to say head chief. Moreover, a housefly in the soup would upset a chef. So, chef is more appropriate as compared to chief. Thus, options A and C are ruled out. Housefly is not hyphenated nor there do any space between house and fly in this context.
46. D All other options are synonyms of hypothesize which means to suppose by hypothesis. Refute means to negate or reject something which is an antonym of hypothesize.
47. B E opens the passage as it introduces the topic of warehousing in India. C gives the reason why the concept of warehousing is not new. B takes the idea of warehousing being old further by giving the examples of castes. This is followed by D which gives the other side of the story ('However' marks that shift). A follows D since it starts with 'in fact' which further adds to D.

48. E' Concurrence means meeting of minds. Agreement, accord, consensus and coincidence all mean the same. Although harmony is also very close in meaning, it is the most appropriate choice because harmony is consequence of concurrence and so it is sometimes used in the same context. Out of the given options, harmony is the best choice.
49. E (ii) and (i) form a mandatory pair; since (ii) talks about a government harming its own economy and (i) states how the government can do this. (v) follows (i) as it contradicts the idea stated in (i) that government policies have impact on the economy. It says 'there is not the slightest evidence...'. (iii) and (iv) are a mandatory pair too since 'they' in (iv) refers to 'business cycles' in (iii). Hence, option E is the correct choice.
50. C The argument can be broken down to simpler terms. It states that if A is reduced, B increases which causes an increase in C. Option C is analogous to this. It says if number of words is more, the advertisement won't be read, and if it isn't read, the product won't be sold. Thus, reducing the number of words in an advertisement would lead to an increase in readership and subsequently increase in sales.
51. E 'Conservatively' fits in the sentence perfectly. The manager doesn't want to escalate the figures too much, nor does he want to reduce them so much that they demotivate the board members. So, he wants to quote a moderate or a 'conservative' number.
52. D The author is of the view that SEZs should be limited in number. Thus, he opposes the proliferation of SEZs in India. Option A is incorrect; it should have SEZs instead of EPZs. The passage neither talks about the advantages or disadvantages of SEZs nor does it compare between Indian EPZs and Chinese SEZs. Hence, option B and C both are incorrect. Option E is incorrect in context to the passage.
53. C The passage mentions that the governments cite fiscal responsibility laws as limiting factors in limiting investment on infrastructure. Nowhere does the author indicate that these laws actually limit the investment on infrastructure, these may well be excuses on the part of non-performing governments.
54. C The author categorically remarks about educational institutes getting SEZ status. He says that SEZs would be successful only if they are few in number and of adequate size. Thus, he opposes giving SEZ status to any and every industry like education. The author also opposes the qualifiers that beat the very purpose of SEZs. Option C is correct as the author does not have any issues with giving tax benefits to promote SEZs; in fact he says that tax benefits lure investors, which is the purpose of SEZs in the first place. The author also opposes options D and E as mentioned in the third paragraph. 'Even after three years...the states refusing to give up the monopoly of their electricity board' and 'While swearing by growth...governments cite the fiscal responsibility laws...to improve the infrastructure.'
55. D The passage mentions that even after three years of the enactment of Electricity Act of 2003, investment is 'still' a trickle. Thus, the passage was most likely written in 2006.
56. A Statement I can be inferred from the line 'In other words...we could understand the most precious of processes: innovation.' Statement II can be inferred from the line 'Without evolution technologies seem to...' Statement III is incorrect. The author is very positive about the process of technological evolution and has no doubt regarding the evolution of technology. Statement IV is incorrect because evolution is a process as a result of which some objects or species are related to each other by the virtue of common descent. This is very different from saying that 'evolution is a sense of common relatedness'.
57. E Statements III, IV and V all strengthen the author's premise that the question of technological evolution hasn't be solved yet. Statement III states that social scientists studying technology haven't studied the earlier technologies and so the question remains unanswered. Statement IV states that technologies like laser, radar etc. seem to just appear, out of the blue unlike biological species which are related to their earlier versions. This means that the evolution aspect in these technologies has not been looked into. The difference in the principle of radar and radio also suggests that even though radar is said to descend from radio, the underlying evolution of technology hasn't been understood properly so that radar can be traced back to a radio.

## SECTION C: QUANTITATIVE ABILITY

58. C Vice Presidents of HR, Operation and Sales visit the plant after a gap of 2 days, 3 days and 5 days respectively. So, VP (HR), VP (Operation) and VP (Sales) visit the plant on every 3rd, 4th and 6th day respectively. Therefore, CEO meets the VPs on every 12<sup>th</sup> day (L.C.M. of 3, 4 and 6) i.e. on 3rd, 15th, 27th of January and 8th of February, but CEO is on leave till 28th of January. Hence, CEO will meet all the three VPs on 8th of February.
59. A Let the salaries (in ₹ lakh) of 5 VPs (Vice presidents) be a, b, c, d and e respectively in ascending order. Median salary is ₹5 lakh i.e. c = 5
- As, mode of the salaries is ₹8 lakh, it implies that at least two VPs are getting salaries of ₹8 lakh. Also, salaries of only two VPs are greater than ₹5 lakh. Hence, d = e = 8
- Given mean of the salaries is ₹5 lakh.
- $$\therefore \frac{a+b+c+d+e}{5} = 5$$
- $$\Rightarrow \frac{a+b+5+8+8}{5} = 5 \Rightarrow a+b = 4$$
- $\Rightarrow a = 2$  and  $b = 2$  or  $a = 1$  and  $b = 3$  (As salaries are in integer lakh).  
But if  $a = 2$  and  $b = 2$ , then ₹8 lakh will not be the only mode. Therefore,  $a = 1$  lakh and  $b = 3$  lakh  
Hence, required sum =  $8 + 1 = ₹9$  lakh.
60. \* As there is no depiction of year 2010 in the given chart, we cannot make any deduction about year 2010. Hence, the question cannot be answered on the basis of the given information.
61. E Average percentage increase in revenues of Yahoo from 4th to 6th year  $\approx \frac{1}{2} \left[ \frac{1150 - 250}{250} \times 100 \right] \approx \frac{1}{2} \times 360 \approx 180\%$
- Average percentage increase in revenues of Facebook from 4th to 6th year  $\approx \frac{1}{2} \left[ \frac{2000 - 350}{350} \times 100 \right] \approx \frac{471}{2} \approx 235.5\%$
- Required difference =  $235.5 - 180 = 55.5\%$ .  
Though there is no option which is in terms of decimal and there is no mention of approximate difference in the question, the option closest to 55.5% amongst the given options is (E).



62. A Percentage growth in revenues of Google from 5th to 6th year =  $\frac{3200 - 1500}{1500} \times 100 \approx 113.33\%$

Revenue of Facebook in 6th year in case its growth rate from 5th to 6th year had been the same as that of Google

$$= 750 + \frac{750 \times 113.33}{100} = \$1599.975 \approx \$1600 \text{ million.}$$

63. E Let 'v' be the volume (in cubic units) of the bucket with one of the sisters and 'x' be the volume (in cubic units) of water splashed out of the bucket.

$$\text{Percentage volume of the water splashed} = \left(\frac{x}{v}\right) \times 100$$

For percentage volume of the water splashed to be maximum, 'v' should be minimum as 'x' is the constant.

As volume of bucket with Bina is lowest, hence Bina's bucket lost the maximum water as a percentage of its capacity.

64. E Let the volume (in cubic units) and skin thickness (in units) of the watermelon be 'V' and 't' respectively.

Then, volume (in cubic units) of watermelon after peeling =  $V - (t \times \text{surface area})$

As the customer's objective should be to have the maximum volume of water-melon after peeling, he or she will choose the shape which is left with maximum volume after peeling.

Among all the given shapes of same volume, sphere has the minimum surface area.

65. C Amount at the end of the 1st year after repayment =  $6000 \times 1.05 - 1200 = ₹5,100$ .

Therefore, amount at the beginning of the 2nd year will be ₹5,100.

Amount at the end of the 2nd year after repayment =  $5,100 \times 1.05 - 1200 = ₹4,155$ .

Therefore, amount at the beginning of the 3rd year will be ₹4,155.

**Alternate method:**

Year	Amount at the beginning of the year	Interest	Repayment	Amount after repayment
1 <sup>st</sup>	₹ 6,000	$\frac{600 \times 5 \times 1}{100} = ₹300$	₹ 1,200	$6000 + 300 - 1200 = ₹ 5,100$
2 <sup>nd</sup>	₹ 5,100	$\frac{5100 \times 5 \times 1}{100} = ₹ 255$	₹ 1,200	$5100 + 255 - 1200 = ₹ 4,155$
3 <sup>rd</sup>	₹ 4,155			

66. E Let radius (in cm) of a smaller sphere be 'r'.  
Volume of the larger sphere = Total volume of 1000 smaller spheres

$$\Rightarrow \frac{4}{3} \pi (10)^3 = 1000 \times \frac{4}{3} \pi r^3 \Rightarrow r = 1 \text{ cm}$$

Surface area of the larger sphere

$$= 4\pi(10)^2 = 400\pi \text{ cm}^2$$

Total surface area of 1000 smaller spheres

$$= 1000 \times 4\pi(1)^2 = 4000\pi \text{ cm}^2$$

Therefore, increase in the surface area of the metal

$$= 4000\pi - 400\pi = 3600\pi = 9 \times 400\pi \text{ cm}^2$$

Hence, surface area of the metal is increased by 9 times.

67. D Let volume (in litres) of the jug be 'x'.  
As after two replacements there is five litres of orange juice in the container,

$$5 = 10 \times \left(1 - \frac{x}{10}\right)^2$$

$$\Rightarrow 10 - x = \sqrt{50} \Rightarrow x = 2.929 \text{ litres.}$$

68. A Let the number of pieces of Kajubarfi, Gulabjamun and Sandesh purchased by Nikhil be a, b and c respectively. Then,  $a + b + c = 100$  and  $10a + 3b + 0.5c = 100$   
After solving, we get

$$19a + 5b = 100 \Rightarrow b = \frac{100 - 19a}{5}$$

As b is a positive integer, a = 5 and hence b = 1.

69. B Let the number of pots with the two sons be 'n'. Therefore the amount (in ₹) received for selling these pots will be  $n^2$ . Let number of packets of potato chips with the first son be 'x' and the price (in ₹) of a packet of banana chips be 'a'.

Son	1 <sup>st</sup> son	2 <sup>nd</sup> son
No. of packets of Banana Chips	1	0
No. of packets of Potato Chips	x	x + 1

Total number of packets with 1st son = 2nd son  
 $= x + 1$

$$\therefore n^2 = 10 \times [x + (x + 1)] + a \Rightarrow n^2 = 10 \times (2x + 1) + a$$

It can be seen from the above expression that tenth digit of  $n^2$  is an odd number.

As the division between both the sons is financially equitable, therefore  $n^2$  i.e. n is an even number but does not end with 0 because value of 'a' is less than 10.

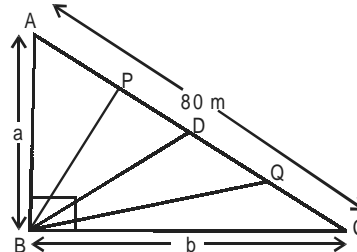
Hence, units digit of n can be either 4 or 6 because the tenth digit of  $n^2$  is an odd number and in both the case units digit of  $n^2$  will be 6.

Therefore price of a packet of banana chips will be ₹6 and total amount (in ₹) spent by the first son and the second son will be  $10x + 6$  and  $10x + 10$  respectively.

Hence, 2nd son will give ₹2 to the 1st son to make the division financially equitable.

**Alternative Method:** As n is even then by hit and trial when  $n^2 = 36$ , then 2nd son will give ₹2 to 1st son.

70. C



Given AC = 80 m, then AP = PD = DQ = QC = 20 m and BD = 40 m. (As D is mid-point of AC, so it is the circumcentre of  $\triangle ABC$ )

Applying Apollonius theorem in  $\triangle ABD$ ,

$$AB^2 + BD^2 = 2(BP^2 + PD^2)$$

$$\Rightarrow a^2 + 40^2 = 2(BP^2 + 20^2) \quad \dots (i)$$

Again applying Apollonius theorem in  $\triangle BDC$ ,

$$BC^2 + BD^2 = 2(BQ^2 + DQ^2)$$

$$\Rightarrow b^2 + 40^2 = 2(BQ^2 + 20^2) \quad \dots (ii)$$

Adding equations (i) and (ii), we get

$$a^2 + b^2 + 2 \times 40^2 = 2(BP^2 + 20^2 + BQ^2 + 20^2)$$

$$\Rightarrow 80^2 + 2 \times 40^2 = 2(BP^2 + BQ^2) + 40^2$$

$$\Rightarrow BP^2 + BQ^2 = \frac{1}{2}(80^2 + 40^2)$$

$$\therefore BP^2 + BQ^2 + BD^2 = \frac{1}{2}(80^2 + 40^2) + 40^2 = 5600 \text{ m.}$$

**For questions 71 and 72:**

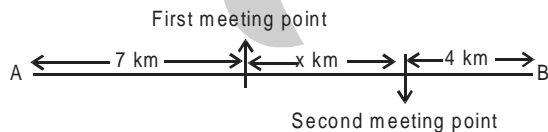
71. A Total amount of petrol consumed during the journey  
 $= 10 + (20 + 15 + 10) - 5 = 50$  liters  
 Total distance covered during the journey  
 $= 800 - 400 = 400$  km  
 Mileage of the car  $= \frac{400}{50} = 8$  km/liter.

72. D Ramya's car has 5 liters of petrol before starting for Shanpur and maximum capacity of the tank of her car is 35 liters, so she can fill a maximum of 30 liters petrol at Rampur. But she would not do so as the cost of petrol at pumps on the way is ₹40/liter and ₹35/liter which is less than the cost of petrol at Rampur (₹45/liter), since the cost is to be minimized. Hence, she will purchase enough petrol at Rampur so that she can reach the first pump on the way while returning from Rampur to Shanpur. At first pump as well she will purchase enough petrol so that she can reach the second pump since the cost of petrol at the second pump is less.  
 Minimum money required  
 $= \frac{150 - (5 \times 8)}{8} \times 45 + \frac{50}{8} \times 40 + \frac{200}{8} \times 35$   
 $= ₹1,743.75 \approx ₹1,744$   
 (Since, the mileage of the car is 8 km/liter)

73. B Required dose administered to the patient  
 $= \frac{10}{50} \times 1 + \frac{15}{50} \times 2 + \frac{30}{50} \times 4 = 3.20$  tablets.

74. B Let the quantity of 12% solution replaced be  $x$  liters.  
 $\therefore (27 - x) \times \frac{12}{100} + x \times \frac{39}{100} = 27 \times \frac{21}{100}$   
 $\Rightarrow x = 9$  liters.

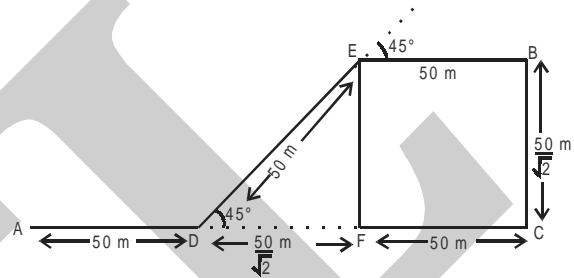
75. D Let the distance (in km) between the points when the buses meet for the first and the second time be ' $x$ '.



Total distance covered by both the buses together before first meet is  $(11 + x)$  km. Total distance travelled by both the buses together from first to second meeting point will be double of the net distance traveled till first meeting i.e.  $2 \times (11 + x)$  km. To cover this double distance each bus will take double the time and hence distance traveled by each bus from first to second meeting point will be double of what each of the buses travelled till first meeting.

$\therefore (x + 8) = 2 \times 7 \Rightarrow x = 6$  km  
 $(\because \text{Bus from terminus A travels 7 km before first meeting and } (x + 8) \text{ km between the first and second meeting}).$   
 Hence, total distance between terminus A and terminus B  $= (7 + 6 + 4)$  km = 17 km.  
 Therefore, cost of running a bus for a day  
 $= ₹17 \times 2 \times 5 \times 20 = ₹3,400$   
 Hence, cost of running both the buses  
 $= ₹3,400 \times 2 = ₹6,800.$

76. E According to the given information, following diagram can be drawn.



In the above diagram it can be seen that the shortest distance between villages A and B is AB.

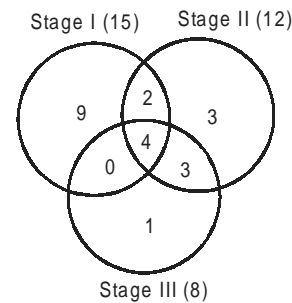
In triangle DEF,  
 $DF = EF = \frac{50}{\sqrt{2}}$  ( $\because$  It is a  $45^\circ - 45^\circ - 90^\circ$  triangle)

Therefore,  $AB = \sqrt{\left(100 + \frac{50}{\sqrt{2}}\right)^2 + \left(\frac{50}{\sqrt{2}}\right)^2} = 50\sqrt{5 + 2\sqrt{2}}$

$\Rightarrow AB = 50\sqrt{5 + \sqrt{8}} = a\sqrt{b + \sqrt{c}}$   
 $\Rightarrow a = 50, b = 5$  and  $c = 8$   
 Hence,  $a + b + c = 50 + 5 + 8 = 63.$

77. D Let cost (in ₹) of a roti, a tadka and a cup of tea be ' $x$ ', ' $y$ ' and ' $z$ ' respectively.  
 As per the given information,  
 $10x + 4y + z = 80$  ... (i)  
 $7x + 3y + z = 60$  ... (ii)  
 By (ii)  $\times 3 -$  (i)  $\times 2$ , we get  
 $x + y + z = 20$   
 Therefore, amount paid by Anthony  
 $= 5x + 5y + 5z = 5 \times 20 = ₹100.$

78. B Given information can be shown as follows:



Hence, number of times when software failed in a single stage only  $= 9 + 3 + 1 = 13.$

79. E Volume of the cone of radius 'r' and height 'h' =  $\frac{1}{3}\pi r^2 h$

Volume of the conical writing equipment

$$= \frac{1}{3}\pi \times \left(\frac{5}{2} \times 10^{-1}\right)^2 \times 7 = \frac{11}{24} \text{ cm}^3$$

Hence,  $\frac{11}{24} \text{ cm}^3$  cream can write 330 words.

Number of words that can be written with  $1 \text{ cm}^3$  cream

$$= 330 \times \frac{24}{11} = 720$$

Also,  $\frac{3}{5} \text{ liter} = 600 \text{ cm}^3$  ( $\because 1 \text{ liter} = 1000 \text{ cm}^3$ )

Therefore, number of words that can be written with three fifth of a liter of the cream =  $600 \times 720 = 432000$ .

80. E Runs made through 4's =  $306 \times \frac{43.14}{100} \approx 132$

Hence, number of 4's hit by the batsman = 33

Runs made through 6's =  $306 \times \frac{3.92}{100} \approx 12$

Hence, number of 6's hit by the batsman = 2.

81. E\* Information given in question 81 is incomplete. So we cannot answer the question. If we use the total runs score (= 306) by the batsman given in question 80, then we can answer the question.

According to question, total runs scored by the batsman =  $306 + 20 - 4 = 322$

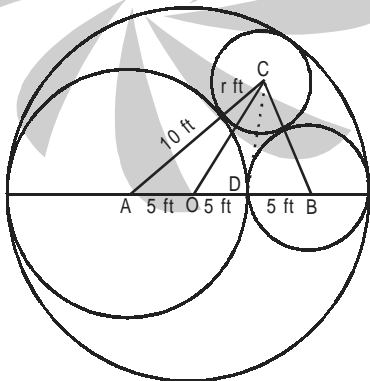
Runs made through 4's by the batsman

$$= 306 \times \frac{43.14}{100} + 20 \approx 152$$

Therefore, required central angle

$$= 152 \times \frac{360}{322} = 169.94^\circ \approx 170^\circ.$$

82. C Let the radius (in feet) of the largest disc that can be cut from the remaining portion of the plywood piece be 'r'.



Let DC be x feet.

Applying Apollonius theorem in triangle ACD,

$$(10 + r)^2 + x^2 = 2(5^2 + (15 - r)^2)$$

$$\Rightarrow x^2 - r^2 + 80r = 400 \quad \dots(i)$$

Similarly applying Apollonius theorem in triangle OCB,

$$(5 + r)^2 + (15 - r)^2 = 2(x^2 + 5^2)$$

$$\Rightarrow x^2 - r^2 + 10r = 100 \quad \dots(ii)$$

Subtracting (ii) from (i), we get

$$70r = 300 \Rightarrow r = \frac{30}{7} \text{ feet.}$$

Therefore, required diameter =  $\frac{60}{7} \approx 8.57$  feet.

83. E From statement (i) and (ii) we can conclude that sum of ages of three sons of Jose is 13.

From statement (v) and (vi) it can be concluded that both of the younger sons are two years of age.

Therefore, age of eldest son will be 9 years.

84. D Let the profit (in ₹) for the year be x. Then,

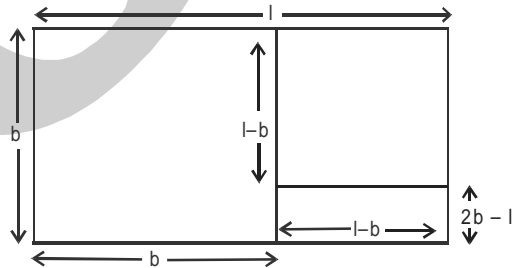
$$\frac{3}{5} \times 200000 + \left(0.20 + \frac{3}{5} \times 0.8\right) \times 200000 + \left(0.35 + \frac{3}{5} \times 0.65\right) \times (x - 400000)$$

$$= 367000$$

$$\Rightarrow 256000 + 0.74 \times (x - 400000) = 367000$$

$$\Rightarrow x = \frac{111000}{0.74} + 400000 = ₹5,50,000.$$

85. B Let the length and breadth (in units) of the original plot be 'l' and 'b' respectively. From the given information, the following diagram can be drawn.



Side of the first square plot that is cut from the original plot = b

Side of the second square plot = l - b

Length and breadth (in units) of remaining plot will be (l - b) and (2b - l) respectively. Then,

$$\frac{2 \times ((l - b) + (2b - l))}{2 \times (l + b)} = \frac{3}{8}$$

$$\Rightarrow l : b = 5 : 3$$

Let length and breadth (in units) of original plot be '5x' and '3x' respectively.

Cost price of original plot

$$= 1000 \times 5x \times 3x = ₹15000x^2$$

Total selling price of the plot

$$= ₹16500x^2$$

Let the remaining land be sold at the price ₹p/sqft.

$$\therefore 9x^2 \times 1200 + 4x^2 \times 1150 + 2x^2 \times p = 1100 \times 15x^2$$

$$\Rightarrow p = ₹550/\text{sqft.}$$



# SNAP

SYMBIOSIS NATIONAL APTITUDE TEST

## SOLVED PAPERS 2004-2011

3

*Full length  
Model Papers*

2

*Mock Test  
Online\**

**Gautam Puri**



 **CAREER  
LAUNCHER**

**SNAP**

**SOLVED PAPERS 2004-2011**

**Gautam Puri**



**IIFT**

**SOLVED PAPERS**

**2006-2011**

**Gautam Puri**

# IIFT



**INDIAN INSTITUTE OF FOREIGN TRADE**

# SOLVED PAPERS 2006-2011

*3*

*Full length  
Model Papers*

*1*

*Mock Test  
Online\**

**Gautam Puri**



**CAREER  
LAUNCHER**

For more information about anything related  
to your preparation, please visit:

[www.careerlauncher.com](http://www.careerlauncher.com)

[www.careerlauncher.com/examcorner/](http://www.careerlauncher.com/examcorner/)

[www.careerlauncher.com/classapart/](http://www.careerlauncher.com/classapart/)

[www.gpkafunda.com](http://www.gpkafunda.com)