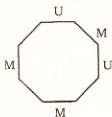


that no three parents are seated consecutively.

135. 4; If the given condition is complied with, then the number of empty seats in front of any parents must be two or less.

(136-137): Two union representatives and three management representatives can sit along the octagonal table as below.



136. 3; Since no two union and management representatives can sit together, hence there can be not more than one management representative.

137. 4

(138-142): On the basis of given information following table can be drawn.

Town	A	B	C	D	E
Hill Station	✓	✓	×	×	×
In Plain	×	×	✓	—	✓
Harbour	×	—	×	—	✓
Capital	✓	—	—	—	✓
Industrial Town	×	×	✓	×	✓
Population > 5 lakh	✓	✓	×	×	×
Population = 20 lakh	×	×	×	✓	×
Population > 50 lakh	×	×	✓	×	✓
Same latitude	—	—	✓	✓	—
Same longitude	✓	—	—	—	✓

138. 3 139. 4 140. 4

141. 3 142. 4

143. 2; The sequence series in the given series is +6, +12, +24, +48, +96, +192. Hence the number 48 must be replaced by 50.

144. 3; Series I: 11 20 38 74

The sequence in this series is $\times 2 - 2$.

Series II: 5 12 26 54

The sequence in this series is $\times 2 + 2$. Hence the number 40 must be replaced by 38.

145. 2; The sequence in the given series is +2, +4, +2, +4, +2, +4. Therefore, 14 must be replaced by 18.

146. 1; The terms of the given series are $1^3 + 2$, $2^3 + 2$, $3^3 + 2$, $4^3 + 2$, $5^3 + 2$, $6^3 + 2$.

147. 4; Here 2 must be replaced by 1 and 12 must be replaced by 3.

Then the sequence in the series will be +4, +8, +12, +16, +20.

148. 3

149. 3

150. 2

151. 4

Note: For explanation see Q. No. 138, 139 and 140 of 'MAT December 2005'.

(152-154):

Name	Days	Time
Kamal	Tue, Thur, Sun	12 noon to 4 pm
Navin	Mon, Thur, Fri, Sun	10 am to 2 pm
Rajiv	Mon, Wed, Thur, Fri, Sat, Sun	9 am to 12 noon, 2 pm to 4 pm

152. 3; On Thursday all the three brother are available.

153. 4; For a maximum of four days only one brother is available at a particular time in a week.

154. 4; On Monday and Thursday between 10 am to 12 noon both. Navin and Rajiv are available at home.

155. 3; Sum of the numbers in each column is a perfect square.

156. 3; Sum of the numbers in each column is a perfect square.

157. 1

158. (None) : Because of III and VI, his case must be referred to the Director, Marketing.

159. 3; IV is not given

160. 1	161. 2	162. 2	163. 4
164. 4	165. 1	166. 4	167. 3
168. 4	169. 1	170. 2	171. 3
172. 2	173. 3	174. 3	175. 4
176. 2	177. 1	178. 4	179. 1
180. 3	181. 1	182. 3	183. 1
184. 4	185. 1	186. 2	187. 3
188. 4	189. 1	190. 1	191. 3
192. 2	193. 2	194. 2	195. 2
196. 3	197. 2	198. 1	199. 1
200. 3			

Management Aptitude Test

February 2004

Section I

English Language and Comprehension

Directions (Q. 1-18): Read the following passages to answer these questions based on what is stated or implied in the passage.

Passage I

"Companies can now keep sensitive information at a distance from competition. Indian companies can now make it to big deals which are time bound", said MD, Hero Cycle, "Opening up of doing agricultural sector overseas is a major bonanza". Buoyed by the productivity gains, financial reforms, strong rupee and bulging forex reserves, Indian companies are thinking global. "This freedom is important for the companies to expand and grow. Many a times, companies need short windows to complete the deals", said BCG Chairman. Aditya Birla group is going global aggressively and has acquired companies in Australia, China and Indonesia. Dabur has acquired three companies this year. Tata's slogan this year is globalisation. Hindalco is buying out Aluminium firm. Corporate India can now prowl on global companies priced above \$ 100 million without obtaining permission from the government and bid big against competition for the target takeovers. So far the companies had to walk through bureaucratic maze and waste crucial time fulfilling 'babudom' requirements, while acquiring foreign companies. Corporate India can make overseas investment up to 100 per cent of their net worth. Ambanis, Ruia's, Mahindras and strong consumer group companies like TVS, ASIAN PAINTS and BAJAJ—they are all on the prowl out to capture developing markets. Reliance is buying out FLAG Telecom for \$ 212 million and TATA MOTORS is acquiring Daewoo commercial vehicle truck unit for \$ 118 million. Already investment bankers and private equity managers are chasing India Inc with cash to close the deals. "It is a bold step but one has to wait till actual guidelines come to see whether any rides are attached to it", said the Chairman of Samtel group. With over 50 Indian firms waiting to spread wings, the creation of the Indian MNC Index is also in the works.

1. According to the passage, which one of the following organisations is not associated in evolving an Indian MNC Index?
 - 1) Harvard University
 - 2) Boston Consulting Group
 - 3) Indian Institute of Management, Bangalore
 - 4) None of these
2. Which one of the following sectors of economy

is now announced for overseas investment for the first time?

- 1) Automobile
 - 2) Telecom
 - 3) Agriculture
 - 4) Entertainment
3. Which of the following is not implied as per the reported statement of the Chairman of the Samtel Group?
 - 1) Increase in the limit of overseas investment is a bold step.
 - 2) The move would improve competitiveness of the Indian companies.
 - 3) The actual guidelines are to be examined.
 - 4) There could be riders attached to the otherwise acceptable measure.

Passage II

Scientists seeking new ways to repair damaged arteries and ailing hearts have coaxed stem cells from a human embryo to forming tiny blood vessels. It's the first time human embryonic stem cells have been nurtured to the point where they will organise into blood vessels that could nourish the body, according to Robert Langer, leader of a laboratory team at 2 Massachusetts Institute of Technology. But it isn't likely to be the last, as scientists pursue research into uses for stem cells despite debate over the ethics of using the cells. The new development was reported in the online issue of the proceedings of the National Academy of Sciences. Dr John Gearhart of the Johns Hopkins School of Medicine said the research was a "nice illustration" of how stem cells can serve as a source of various types of cells, in this case for blood vessels, "I think this is terrific", said Gearhart, who was not part of the research team. It's another good example of the isolation of an important cell type from human embryonic stem cells. These are the kinds of papers we are going to see a lot of", Gearhart added. Langer said the work showed that endothelial cells could be made from human embryonic stem cells. Endothelial cells line veins, arteries and lymph tissues. They are key to the structures that carry blood throughout the body. He said that if the technique was refined, scientists could eventually be able to make in the laboratory blood vessels that could be used to replace diseased arteries in the body. "There are thousands of operations a year now where doctors take vessels from one part of the body and transplant them to another", said Langer. Eventually, he said, such vessels might be made outside the body from embryonic stem cells. Langer said endothelial cells also might be used to restore circulation to the cells damaged by the heart

attacks. He said the processed stem cells may be able to re-establish blood flow to hearts failing due to blocked arteries. The research was conducted under a private grant, but Langer said that the cell culture used is one of 61 worldwide that have been approved by the National Institute of Health for federally funded research. The use of embryonic stem cells is controversial because extracting the cells kills a living human embryo. President Bush last summer decided that federal funding would be permitted only for stem cell cultures that already existed and were made from embryos that were to be discarded by fertility clinics. The aim was to prevent further killing for research purposes of other human embryos. Langer said his lab will seek federal money to continue research using the same stem cell cultures, which were obtained from the Rambam Medical Centre in Haifa, Israel. Embryonic stem cells are the ancestral cells of every cell in the body, in a developing embryo, they transform into cells that make up the organs, bone, skin and other tissues. Researchers hope to direct the transformation of such cells to treat ailing hearts, livers, brains and other organs. Langer said his team cultured the cells in such a way that they were allowed to develop into the various types of cells that are precursors to mature tissue. From this colony, the researchers extracted cells that were following a lineage that would lead to mature endothelial cells. These were further cultured and some eventually formed primitive vascular structures.

4. The readership, that the passage is intended for, is most likely to be
 - 1) Health care professionals
 - 2) Doctors
 - 3) Laymen
 - 4) Stem-cell researchers
5. Which of the following statements does not follow from the passage?
 - 1) Stem cells are being researched especially for forming blood vessels
 - 2) Fertility clinics collect human embryos
 - 3) Stem cell research utilises Federal Funding
 - 4) Human embryos are destroyed in stem cell research
6. Endothelial cells are said to have all of the following qualities except that
 - 1) They are used to make blood vessels
 - 2) They carry blood throughout the body
 - 3) They line veins, arteries and lymph tissues
 - 4) They are useful in restoring circulation to the damaged cell
7. Which of the following could be made redundant by the research mentioned?
 - 1) Cardiac operations necessitated by heart attacks
 - 2) Transplanting of blood vessels from one part to another
 - 3) Sourcing embryonic cells from fertility clinics
 - 4) Performing open heart surgeries
8. Stem cell research involves
 - 1) Wastage of embryo by fertility clinics
 - 2) Cell cultures from various genetically-altered embryos
 - 3) Genetic cloning of abilities
 - 4) Killing of a live human embryo

Passage III

Infrastructure can deliver major benefits in economic growth, poverty alleviation, and environmental sustainability but only when it provides services that respond to effective demand and does so efficiently. Service is the goal and the measure of development in infrastructure. Major investments have been made in infrastructure stocks, but in too many developing countries these assets are not generating the quantity or the quality of services demanded. The costs of this waste—in foregone economic growth and lost opportunities for poverty reduction and environmental improvement—are high and unacceptable. The causes of the past poor performance, and the source of improved performance, lie in the incentives facing providers. To ensure efficient, responsive delivery of infrastructure services, incentives need to be changed through the application of three instruments—commercial management, competition and stakeholder involvement. The roles of government and the private sector must be transformed as well. Technological innovations and experiments with alternative ways of providing infrastructure indicate the following principles for reform: Manage infrastructure like business, not a bureaucracy. The provision of infrastructure needs to be conceived and run as a service industry that responds to customer demand. Poor performers typically have a confusion of objectives, little financial autonomy or financial discipline, and no “bottom line” measured by the customer satisfaction. The high willingness to pay for most infrastructure services, even by the poor, provides greater opportunity for user charges. Private sector involvement in management, financing or ownership will in most cases be needed to ensure a commercial orientation in infrastructure. Introduce competition—directly if feasible, indirectly if not. Competition gives consumers choices for better meeting their demands and puts pressure on suppliers to be efficient and accountable to users. Competition can be introduced directly, by liberalising entry into activities that have no technological barriers, and indirectly, through competitive bidding for the right to provide exclusive service where natural monopoly conditions exist and by liberalising the supply of service substitutes. Give users and other stakeholders a strong voice and real responsibility where infrastructure activities involve important external effects, for good or bad or where market discipline is insufficient to ensure accountability to users and other affected groups, govern-

ments need to address their concerns through other means. Users and other stakeholders should be represented in the planning and regulation of infrastructure service. In some cases, they should take major initiatives in design, operation and financing. Public-private partnerships in financing have promise. Private sector involvement in the financing of new capacity is growing. The lessons of this experience are that the governments should start with simpler projects and gain experience, investors' returns should be linked to project performance, and any government guarantees needed should be carefully scrutinised. Governments will have a continuing, if changed, role in infrastructure. In addition to taking steps to improve the performance of infrastructure provision under their direct control, governments are responsible for creating policy and regulatory frameworks that safeguard the interests of the poor, improve environmental conditions, and coordinate cross-sectoral interactions—whether services are produced by public or private providers. Governments are also responsible for developing legal and regulatory frameworks to support private involvement in the provision of infrastructure services.

9. The measure of development in infrastructure is
 - 1) The quantum of investment
 - 2) The investment in infrastructure stocks
 - 3) The level of service delivered by the infrastructure
 - 4) The utilisation of the existing infrastructure
10. According to the passage, the primary cause for the poor performance of infrastructure services is
 - 1) A confusion of objectives
 - 2) Prevalence of monopoly conditions
 - 3) The incentive structure
 - 4) Inadequate government involvement
11. Poor management of infrastructure is characterised by
 - A) Confused objectives
 - B) Financial indiscipline
 - C) No orientation towards customer satisfaction
 - 1) A and B
 - 2) A and C
 - 3) B and C
 - 4) A, B and C
12. Which of the following is true according to the passage?
 - 1) Government's role must be minimised in the provision of infrastructure services.
 - 2) Users and other stakeholders must be represented adequately in the planning and regulation of infrastructure services.
 - 3) Users are willing to pay even if services are poor.
 - 4) Private sector involvement in infrastructure services is not necessary.
13. The passage suggests all of the following except that
 - 1) The competition increases consumer choice and increases the accountability of service providers.

ers.

- 2) The government must encourage private sector investment by providing guarantees.
- 3) The investor returns ought to be linked to project performance.
- 4) When infrastructure activities have important external effects, users must have a strong voice.

Passage IV

Few would have dreamt in their wildest dreams before the fateful May 11 and May 13, 1998 that the trundling elephant that India had all along been compared to in the western media would and could metamorphose overnight into a ferocious lion that could not only roar but charge and kill anyone daring to cast an evil eye. Few could have foretold that the five underground nuclear tests at the Pokhran range in Rajasthan in May 1998, catapulting this nation of 950 million people overnight into a superpower on its own, would send shock waves across Beijing, Islamabad, Washington, the European capitals and even Tokyo. The Buddha smiled once way back in 1974 and he smiled five times on May 11, 1998 on the Buddha Purnima Day and May 13 when India's Prime Minister proudly announced to the nation and the rest of the world about India venturing into the exclusive club of nuclear weapon states as part of the national security shield even as he congratulated the top scientists of India over their great achievement.

India is a country wedded to peace and non-violence and her great sons like Lord Buddha, Ashoka and Gandhiji had been living examples to prove this gospel. But India as a self-respecting nation would not propagate the peace of the graveyard or the non-violence of the weak. It is a pity that our non-violence has been mistaken by many as our weakness and many assume that India is a nation of weak-willed people. Time and again, our leaders have reminded the world community that India has an inalienable right to defend its freedom, sovereignty and its ancient heritage and it would take appropriate measures at the appropriate time to make its defensive preparedness as strong as it could. No nation need be apologetic, if it tries its best to defend its freedom, sovereignty and its ancient heritage and that is would take appropriate measures at the appropriate time to make its defensive preparedness as strong as it could. No nation need be apologetic, if it tries its best to defend its freedom. And a nation like India that has suffered centuries of foreign subjection has every right—more than any other nation to strengthen its defense. Moreover, India cannot take any chances when it lives in a hostile nuclear environment, with Pakistan receiving all sorts of smuggled nuclear and missile material from North Korea, China and other sources, and China itself having conducted several

nuclear test and armed herself to teeth.

In times of crises, India has to fall back upon its resources to defend itself, its hard-won freedom, its economic gains and its own ancient cultural legacy. It has had three wars with Pakistan and another disastrous war with China and both the countries are still in illegal occupation of Indian territory. India hopes that the smiling Buddha on May 11, 1998 would have conveyed the right message to the right quarters that evil designs on this country would not be tolerated. It was this logic, too, that prevented India from signing both NPT and CTBT—treaties that are discriminatory in nature. When the present government came to power, they had announced that India would go nuclear. The decision of the government to go nuclear does not emanate from any kind of jingoism or sabre-rattling mentality. It arises from the supreme concern to preserve the integrity of a nation described by many of its detractors as a 'functioning anarchy'. Far from it, India has conveyed to the rest of the world that it has the best brains that can excel the best in the world.

14. What is the passage about?

- 1) India becomes a nuclear power.
- 2) Indo-Pak relations.
- 3) Peaceful and non-violent policies of India.
- 4) India and its neighbouring countries.

15. As per the passage "Buddha smiled five times" on/in

- A) May 11, 1998
- B) May 13, 1998
- C) 1974
- 1) A only
- 2) A and B
- 3) A and C
- 4) B and C

16. India's non-violence has been mistaken for

- 1) Lack of willingness to fight
- 2) Others' weakness
- 3) Our weakness
- 4) Our cultural legacy

17. Decision by the government to go nuclear is because of

- 1) Some kind of jingoism
- 2) Sabre-rattling mentality
- 3) Concern to preserve the integrity of the country
- 4) Centuries of foreign subjection

18. According to the passage, India has the right to

- 1) Strengthen its defence
- 2) Fight with its neighbours
- 3) Be hostile
- 4) Send shock waves to the world

Directions (Q. 19-22): In each of these questions, a sentence has one or two blanks, each blank indicating that something has been omitted. Beneath the sentence are given four words or a set of words. Choose the word or the set of words for each blank that best fits the meaning of the sentence as a whole.

19. We were amazed that a man who had been the

most — of public speakers could, in a single speech electrify an audience and bring them cheering to their feet.

- 1) Enthralling
- 2) Accomplished
- 3) Pedestrian
- 4) Masterful

20. The officers threatened to take — if their men were — by the conquered villages.

- 1) Measures, enhanced
- 2) Reprisals, endangered
- 3) Liberties, irritated
- 4) Affront, enervated

21. His presentation was so lengthy and — that it was difficult for us to find out the real — in it.

- 1) Verbose, content
- 2) Tedious, skill
- 3) Laborious, coverage
- 4) Simple, meaning

22. The — of opinion which emerged at a recently concluded seminar was that the problem of dowry cannot be — unless the law against it is made more stringent.

- 1) Divergence, managed
- 2) Convergence, appreciated
- 3) Consensus, tackled
- 4) Similarity, curbed

Directions (Q. 23-26): In each of these questions, a sentence has four underlined words or phrases marked A, B, C and D. Choose the one word or phrase that must be changed for the sentence to be correct.

23. Every candidate under (A) considering (B) for a military job must undergo (C) a thorough medical (D) examination.

- 1) A
- 2) B
- 3) C
- 4) D

24. Caricature, a type (A) of exaggeration (B) is common (C) used in (D) political cartoons.

- 1) A
- 2) B
- 3) C
- 4) D

25. If Swift's 'Gulliver's Travels' attracts less (A) readers than (B) it did in the eighteenth century, perhaps (C) the reason is that modern readers do not know enough political history to appreciate (D) the satire.

- 1) A
- 2) B
- 3) C
- 4) D

26. Because coughing (A) spread (B) germs and Ram is coughing, (C) Ram is spreading (D) germs.

- 1) A
- 2) B
- 3) C
- 4) D

Directions (Q. 27-29): In each of these questions, there are four statements of which one is incorrect. Choose the incorrect one.

27. 1) A hater of the institution of marriage is a misogamist.

2) The violation of sacred things is sacrilege.

3) To prevaricate is to make evasive or misleading statements.

4) A torpid person is generally hyperactive.

28. 1) An upstart is from a traditionally well-to-do aristocratic family.

2) A yokel is not familiar with the sights and sounds of a big city.