MBA 2016 – EXAMINATION PAPER
PART – 1

Directions: This section comprises of two passages. After each passage questions consisting of items relating to the preceding passage are given. Evaluate each item separately in terms of the respective passage and choose your answer as per the following guidelines:

1. If the item is a MAJOR OBJECTIVE in making the decision; that is the outcome or result sought by the decision maker.

2. If the item is a MAJOR FACTOR in arriving at the decision; that is consideration, explicitly mentioned in the passage that is basic in determining the decision.

3. If the item is a MINOR FACTOR in making the decision: a less important element bearing on or affecting a Major Factor, rather than a Major Objective directly.

4. If the item is a MAJOR ASSUMPTION made deliberately; that is a supposition or projection made by the decision maker before considering the factors and alternatives.

PASSAGE I

In early 2007 the Runeway Clock Company was considering the introduction of a new line of electric clocks in an effort to increase unit sales and thereby utilize a greater percentage of its production facilities. The new line would be sold under the brand name Remold and would be marketed in direct competition with the lower-priced models of the regular Runeway line. While the total market for clocks had increased in recent years, Runeway's unit sales had remained relatively constant. The company's sales manager left that one way to increase sales was to introduce a line of non-fair-traded clocks.

The Runeway Company had been producing a line of quality household clocks for almost a century. Throughout its existence the company had maintained an excellent reputation for the production of quality clocks. Many of its first clocks were known to be still operating in satisfactory fashion. Some were even considered family heirlooms.

In 2005 the Runeway Company produced a line consisting of eight basic models. In 2006, however, four new models were added, making a total of twelve models of electric and mechanical clocks sold under the Runeway name. Of these, two were alarm clocks, three were table model occasional clocks, and seven were wall clocks. Each model was produced in several different colors, with black, brown, and red the most popular one. Styles ranged from traditional to ultramodern. The company employed a full-time designer and emphasized style in its dealer and consumer promotions.

The clock market was considered to be highly competitive. The industry was composed of a number of firms, most of which were small or medium size. The glant in the field was General Electric with its Telechron line of electric clocks. The smaller firms sold either on a price or qulity-of-workmanship basls. These firms usually produced a relatively small number of models and changed styles frequently. Runeway was one of the medium-sized companies with about 5 percent of the industry's sales. The company's share of the market had been greater during the late 1970's and early 1980's, but the increase in the number of films selling inexpensive electric clocks had cut into the company's share substantially. Because of an expanding market, however, Runeway's unit sales had remained relatively constant since 1995. Sales of Runeway clocks approximately Rs. 7 million in 2006. The increase in sales which had taken place was due almost entirely to changes in Runeway's prices.

The Runeway Company employed salesman who sold to 300 distributors, most of whom were

jewelry wholesalers. These wholesalers sold to over 14,000 retail outlets, of which 80 percent were jewelry stores and the rest department stores. The bulk of the company's sales to department stores was accounted for by 60 to 70 large stores. Each of the company's salesman had about 20 large retail accounts to which he sold direct. If an outlet which had been served by one of the wholesalers was sold direct by a Runeway salesman, the outlet was billed through the wholesaler so that the latter received its margin.

To back up the efforts of the salesman, the company budgeted about Rs.2,500,000 annually for advertising. About 70 percent was spent on consumer advertising and the remainder on trade advertising. Most of the consumer advertisements were placed in magazines, although some radio spots were used. The advertisement stressed the up-to-date styling and quality of the Runeway clocks.

Runeway clocks were priced at retail from Rs.100 to Rs. 600, but most of the sales were in the Rs.300 to Rs.400 price range. The company established a policy of resale price maintenance for the Runeway line to protect the small dealer. This policy was policed largely by examining dealer advertisements and collecting information from trade sources. If a dealer sold Runeway merchandise at less than the fair-traded price Runeway issued a warning to the dealer. If a second violation occurred within a year, Runeway sought a court injunction against the dealer to prevent future violations. Actually, Runeway had little difficulty in maintaining its retail prices. The company did, however, face growing price competition from small clock manufacturers who frequently offered large credit jewelers and discount houses a special price for a volume order.

TABLE 1

Example of a Comparable Price Structure on Runeway and Remold Clocks.

Price	Runeway Model No. 102* (Fair Traded)	Remold Model No. C102 (Not Fair Traded)	
		Lots of 1-24	Lots of 24 or more
List	110	110	110
To dealer	72	67	59
To distributor	55	52	45

* No quantity discounts offered on this model. The new line of clocks under consideration in 2006 would be sold under the Remold brand and would consist solely of two electric alarm clocks and three electric wall models. The styles for these five models would be obtained from (1) previously discontinued Runeway models, (2) new models developed especially for Remold, or (3) modified current Runeway models, usually "stripped" versions. These clocks would have suggested list prices ranging from Rs.70 to Rs. 150. These prices would be identical to the prices charged for the comparable Runeway models. However, the Remold line would not be fair traded and the price to dealers would be less (See Table 1 for a price schedule). It was expected that many retailers would sell the Remold line at considerably less than the list price.

The only advertising planned for the Remold line was some illustrated price lists for use by company salesman and distributors, point-of-purchase signs, display racks, and consumer handouts for use by retailers. This material would be free to distributors and dealers. It was thought that many of the retailers handling the Runeway line would also handle the Remold models. It was expected that the quality of the Runeway models would be used as a selling point by both distributors and retailers. It was hoped that additional cut-price outlets, such as credit

jewelers, large drug chain outlets, and discount houses, would be interested in the new line.

Questions:

1. Utilization of excess capacity
2. Runeway's declining market share
3. Runeway's 100 years in business
4. Consumers acceptance of the new line
5. Competition from small manufacturers
6. Need to increase unit sales
7. Reputation of Runeway
8. Protection of the small dealer
9. Importance of styling
10. Sales to department stores

PASSAGE II

ABC company, USA, manufacturers of computers and computer accessories, has recently (March, 1970) entered into a joint venture with XY Machines of Tokyo, Japan, ABC had domestic sales of over --------- million dollars in 2009 and foreign sales of nearly --------- million. Besides the United States, they operate in most of Western Europe, the Mideast, and some parts of the Far East. In the past, they have had no significant sales or sales force in Japan although they were represented there by a small trading company until a few years ago. In a United States they are one of the leaders in their field and are considered to have one of the most successful and aggressive sales forces found in this highly competitive industry.

XY is an old-line computer manufacturing company organized in 1872. At one time, they were the major manufacturer of mainframe equipment in Japan but they have been losing ground since 1990 even though they produce perhaps the best system in Japan/Sales in 2009 were ------- yen (102 yen = 1 U.S. dollar), a 15 percent decrease over sales in 2008. The fact that they produce only computers is one of their major problems; the merger with ABC will give them much-needed breadth in their product offerings. Another hoped-for strength to be gained from the joint venture is managerial leadership, which they sorely need.

There are 14 Japanese companies which have products that compete with XY, plus several foreign giants such as IBM, HP, XY has a small sales force of 21 men, most of whom have been with the company for a long time. These salesman have been responsible for selling to Japanese trading companies and to a few large purchasers of equipment.

Part of the joint venture agreement was doubling the sales force within a year, with ABC responsible for hiring and training the new salesmen, who must all be young, college-trained Japanese nationals. The agreement also allowed for U.S. Personnel in supervisory positions for an indeterminate period of time and retaining the current XY sales force.

One of the many sales management problems facing the XY_ ABC Corporation (XY_ABC Corporation – the name of the new joint venture) was what sales compensation plan to use, i.e., should they follow the Japanese tradition of straight salary and guaranteed employment until death with no incentive program, or the U.S. method (very successful for ABC in the United States) of commissions and various incentives based on sales performance, with the ultimate threat of being fired if sales quotas continuously go unfilled.

The immediate response to the problem might well be one of using the tried and true U.S. Compensation methods, since they have worked so well in the United States and are perhaps the kind of changes needed and expected from the U.S. management. ABC management is convinced that salesmen selling their kinds of products in a competitive market must have strong incentives in order to produce. In fact, ABC had

experimented on a limited basis in the United States with straight salary for, about 10 years ago and it was a "bomb". Unfortunately the problem is considerably more complex than it appears on the surface.

One of the facts to be faced by ABC management is the traditional labor-management relations and employment systems which exist in Japan. The roots of the system go back to Japan's feudal era, when a serf promised a lifetime of service to his lord in exchange for a lifetime of protection. By the start of the country's industrial revolution in the 1880s, an unskilled worker pledged to remain with a company all his useful life if the employer would teach him the new mechanical arts. The tradition of spending a lifetime with a single employer survives today mainly because most workers like it that way. There is little chance of being fired, pay raises are regular, and there is a strict order of job-protecting seniority.

Japanese workers at larger companies still ate protected from out-right dismissal by union contracts and an industrial tradition that some personnel specialists believe has the force of law. Under this tradition, a worker can be dismissed after an initial trial period only for gross cause, such as theft or some other major infraction. As long as the company remains in business he isn't discharged, or even furloughed, simply because there isn't enough work to be done.

Besides the guarantee of employment for life, the typical Janpanese worker receives many fringe benefits from the company. Just how paternalistic the typical Japanese firm can be is illustrated by a statement from the Japanese Ministry of Foreign Affairs which gives the example of "A", a male worker who is employed in a fairly representative company in Tokyo.

To begin with, A lives in a house provided by his company, and the rent he pays is amazingly low when compared with average city rents. His daily trips between home and factory are paid by the company. A's working hours are from 9 a.m. to 5 p.m with a break for lunch which he usually takes in the company restaurant at a very cheap price. He often brings back to his wife food, clothing, and other miscellaneous articles that he buys at the company store at a discount ranging from 10 percent to 30 percent below city prices. The company store even supplies furniture, refrigerators, and television sets on an installment basis, for which, if necessary, A can obtain a loan from the company almost free of interest.

In case of illness, A is given free medical treatment in the company hospital, and if his indisposition extends over a number of years, the company will continue paying almost his full salary. The company maintains lodges at seaside or mountain resorts, where A can spend the holidays or an occasional weekend with the family at moderate prices__ It must also be remembered that when A reaches retirement age (usually 55) he will receive a lump sum retirement allowance or a pension, either of which will assure him a relatively stable living for the rest of his life.

Even though "A" is only an example of a typical employee, a salesman can expect the same treatment. Job security is such an expected part of everyday life that, no attempt is made to motivate the Japanese salesman in the same manner as in the United States; as a consequence, selling traditionally has been primarily an order-taking job. Except for the fact that sales work offers some travel, entry to outside executive offices, the opportunity to entertain, and similar side benefits, it provides a young man with little other incentive to surpass his basic quotas and drum up new business. The traditional Japanese bonuses

(which normally amount to about two or four months' salary over the year) are no larger for salesmen than any other functional job in the company.

As a key executive in a Mitsul-afillated engineering firm put in recently; "The typical salesman in Japan isn't required to have any particular talent." In return for meeting sales quotas, most Japanese salesman draw modest monthly salary, sweetened about twice a year by bonuses. Manufacturers of industrial products generally pay no commission or other incentives to boost their businesses.

Besides the problem of motivation, a foreign company faces other strange customs when trying to put together and manage a sales force. Class systems and the Japanese distribution system with its penchant for reciprocity put strain on the creative talents of the best sales managers, as Simmons, the U.S. bedding manufacturer, was quick to learn. One Simmons executives explains:

We had no idea of the workings of the class system. Hiring a good man from the lower classes, for instance, could be a disaster. If he called on a client of a higher class, there was a good chance the client would be insulted. There is also a really big difference in language among the classes.

In the field, Simmons found itself stymied by the bewildering realities of Japanese marketing, especially the traditional distribution system which operates on a philosophy of reciprocity that goes beyond mere business to the core of the Japanese character. It's involved with "on," the notion that regards a favor or any kind as a debt that must be repaid. To "wear" another's "on" in business and then turn against him is to lose face, abhorrent to most Japanese. Thus, the owner of

large Western-style apartments, hotels, or developments will buy his beds from the supplier to whom he owes a favor, no matter what the competition offers.

In small department and other retail stores, where most items are handled on consignment, the bond with the supplier is even stronger. Consequently, all sales outlets are connected in a complicated web that runs from the largest supplier, with a huge national force, to the smallest local distributor, with a handful of door-to-door salesman. The system is self-perpetuating and all but impossible to crack from the outside.

However, there is some change in attitude taking place as both workers and companies start discarding traditions for the job mobility common in the United States. Skilled workers are willing to bargain on the strength of their experience in an open labor market in an effort to get higher wages or better job opportunities; in the United States it's called "shopping around." And a few companies are showing willingness to lure workers away from other concerns. A number of companies are also plotting on how to rid themselves of some of the "deadwood" workers accumulated as a result of promotions by strict seniority.

Toyo Rayon Company, Japan's largest producer of synthetic fibers, say it will start reevaluating all its senior employees every five years with the implied threat that those who don't measure up to the company's expectations will have to accept reassignment and possibly demotion; some may even be asked to resign. A chemical engineering and construction firm is planning to ask all its employees over 42 to negotiate a new contract with the company every two years. Pay raises and promotions will go to those the company wants to keep. For these who think they are worth more

than the company is willing to pay, the company will offer "retirement" with something less than the $15,000 lump-sum payment that the average Japanese worker receives when he reaches 55.

And a few U.S. companies operating in Japan are also experimenting with incentive plans. Nitta and Company, a belting manufacturer and Japanese distributor for Chesterton packing and Seal Company, was persuaded by Chesterton to set up a travel plan incentive for salesman who topped their regular sales quotas. Unorthodox as the idea was for Japan, Nitta went along and, the first year, special on-week trips to Far East holiday spots like Hong Kong, Taiwan, Manila, and Macao were inaugurated. Nitta's sales of Chesterton products jumped 212 percent and this year sales are up 60 percent over 2008.

Last April, Nitta took the full step towards an American-style sales program. Under Chesterton's guidance, the company eliminated bonuses and initiated a sales commission plan.

When the first quarterly commission checks were mailed last June, the top salesmen found they had earned an average of $550 per month each, compared to original basic salaries of about $100 a month.

At first, Nitta's management had resisted any form of incentive program for its personnel, arguing that it would "disrupt" all normal business operations of the company. The virtually instantaneous success of the travel incentives in motivating previously plodding sales performances into an enthusiastic burst of initiative has prompted Nitta to consider installing some form of incentive and/or commission sales plan for its extensive non-Chesterton operations. The company is one of the largest manufacturers of industrial belting inJapan.

IBM also has made a move toward chucking the traditional Japanese sales system (i.e., salary plus bonus but no incentives). For about a year it has been working with a combination which retains the semi-annual bonus while adding commission payments on the sales over pre-set quotas.

"It's difficult to apply a straight commission system in selling computers because of the complexities of the product" and IBM-Japan official said, "Our salesmen don't get big commissions because other employees would be jealous". To head off possible ill-feeling, therefore, some non-selling IBM employees receive monetary incentives.

Most Japanese companies seem reluctant to follow IBM's and Nitta's example because they have their doubts about directing older salesman to go beyond their usual order-taking role. High-pressure tactics are not well accepted here, and sales channels are often pretty well set by custom and long practice (e.g. a manufacturer normally deals with one trading company, which in turn sells only to customers A, B, C and D). A salesman or trading company, for that matter, is not often encouraged to go after customer Z and get him away from a rival supplier.

Japanese companies also consider non-sales employees a tough problem to handle, With salesmen deprived of the "glamour" status often accorded by many top managements in the United States, even Nitta executives admit they have a ticklish problem in explaining how salesmen – who are considered to be just another key working group in the company with no special status – rate inventive pay and special earning opportunities.

The Japanese market is becoming more competitive and there is real fear on the part of

ABC executives that the traditional system just won't work in a competitive market. On the other hand, the proponents of the incentive system agree that the system really has not been tested over long period or even very adequately, since it has only been applied in a growing market. In other words, was it the incentive system which caused the successes achieved by the companies or was it market growth? Especially there is doubt since other companies following the traditional method compensation and employee relations have also had sales increases during the same period.

The problem is further complicated for XY _ABC because they will have both new and old salesmen. The young Japanese seem eager to accept the incentive method but older men are hesitant. How do you satisfy both since you must, by agreement, retain all the sales staff? Another very critical problem lies with the nonsales employees; traditionally, all employees on the same level are treated equally whether sales, production, or staff. How do you encourage competitive, aggressive salesmanship in a market unfamiliar to such tactics, and how do you compensate salesmen in such a manner to promote more aggressive selling in the face of tradition-bound practices of paternalistic company behavior?

Questions:
11. Motivating Japanese salesmen
12. Using US compensation methods in Japan
13. Labour management relations
14. Job security of Japanese workers
15. Retaining the current XY sales force
16. Doubling the sales force
17. Determining a sales compensation plan
18. Differences in American and Japanese fringe benefits
19. Understanding the Japanese class system
20. Expanding XY product line

PART – II

Directions: Each passage in this section is followed by questions based on its contents. Read the passages carefully and then answer the questions given below them by choosing the best answer to each question. Answer the questions on the basis of what is stated or implied in the passages.

PASSAGE I

Noise is a sign of celebration. Mass celebrations have a necessary elements of rough energy that borders on the crude. One cannot have a Rath Yatra without sweaty throngs blocking roads, an idol immersion without crowds polluting the waters of rivers and seas and Holi without ruining some cloths; Festivals that are celebrated by people rather than merely watched by them necessarily involve large groups coming together noisily and acting in a way they would normally not.

It is understandable that with time, custom adapts to newer contexts and mirrors the needs of society. It would seem that we want our festivals to become bigger in scale, grander in terms of outward displays, and more rewarding in terms of consumption opportunities. As the need for personal comfort grows, the collective nature of festivals creates parallel narrative of pain. And we can see change taking place on its own, even when it comes to Diwali. Along with reports of greater pollution, there was data that pointed out how fire cracker sales are down 30-35% this year. It is exceedingly likely that in the years to come, Diwali will, of its own accord become cleaner and quieter.

Cultures are distinct because of their peculiarities. Mass rituals stand outside logic defined narrowly, bypassing the deliberateness of purposive action for the unconscious thrall of belongingness. It is legitimate that the level of dislocation that is deemed acceptable be re-negotiated

continusously, but when this gets pushed too hard, there is danger of sanitizing traditional behavior in the name of civilizing it. The urge of aesthetic tradition, to iron cut its distinguishing wrinkles, to make it visual rather than experiential treat and to surround it with acts of symbolic, pain-free and modern consumption is an attempt to overvalue the individual and homogenize the collective. Diwali is a festival of celebration that will naturally shed some its exuberance with time; in the name of promoting a more civilized experience, there is a danger of losing touch with the experience of a civilization.

Questions:

21. Which of the following is the central theme of the given passage?

1) To highlight importance of sanitizing traditional behavior during festivals.

2) To highlight that festivals reflect culture and should not be tempered with.

3) To highlight the danger of losing touch with the experience of a civilization.

4) To highlight how customs adapt with time to reflect the needs of the society

22. Which of the following statements can be correctly inferred from the above passage?

a) Festivals are more pain than pleasure thereby defying logic

b) Civilization is important just as civilizing the festival.

c) Indian festivals create noise pollution hence losing their significance.

1) (a) and (b)

2) (a) only

3) (b) and (c)

4) None of the above

23. Consider the following statements with respect to the festival of Diwali:

a) Diwali celebrations today mirror the new psyche of the society.

b) Noise levels determine the degree of happiness during festivals.

c) Over the years, Diwali has become less noisy on its own.

With reference to the passage, which of the statements is/are true?

1) (a) and (b)   2) (a) and (c)

3) (b) and (c)   4) (a),(b) and (c)

24. Consider the following statements:

a) It is imperative that customs adapt to newer contexts and mirror the needs of society.

b) Our generation is in danger of sanitizing traditional behavior in the name of civilizing it.

Which of the above statement(s) is/are correct?

1) (a) only   2) both (a) and (b)

3) (b) only   4) neither (a) nor (b)

25. What does the passage mean by the phrase, 'overvalue the individual and homogenize the collective'?

1) Our society is edging towards greater individualism to become more homogeneous.

2) Our society is evolving with undue emphasis on individual at the cost of collective diversity.

3) Our society is maturing towards greater collective homogenization giving equal value to all individuals.

4) All the above.

PASSAGE II

Education has come a long way, from that of traditional religious texts to global awareness, but not the attitude of providers in certain countries. It is sad to see girls or the 'fairer sex' as they are referred to, being sidelines for no apparent reason. This has many far-reaching effects on the victim and in the case of girls, the result is mental and physical bondage. There are numerous

women's issues that begin with instances of girls not being given the opportunity to study and avail of special education in the modern world. This evil prevails because of the diseased social parameters that are set generations back and allowed to thrive even amidst change. Women, in these countries, are sometimes educated with marriage as the culmination of the effort.

In a society where a male child is treated as "wealth", an uneducated girl not only stands not to inherit any ancestral property but also incapable of becoming a working woman and securing a job if there are marital problems. From her birth, the shadow of female infanticide looms large and throughout her growing years, she is never more than an expense. This makes the girl always feel interior and a victim of child abuse. Though such situations are rampant in the face of extreme poverty, it is not that the monetary brighter segment of society is devoid of it. However, the blasé once sowed, ripples through the family, subsequent generations and society. The repercussions are severe, making women vulnerable to emotional abuse in marital problems.

Discrimination in the field of education results in individual tragedies and finally tells on the rate of progress a society or a nation makes. It is not that there has been no shift. However, the shift is slow in some societies and evident in others. The problem is not with the number of instances coming up each day, it lies with identifying an effective measure to eradicate the economic predicament. The attitude that results in widespread neglect needs to be 'treated' and drained off social support. It is only in a united stand that the focus will provide the right guidelines.

26. **Which of the following is the central theme of the above passage?**
   1) Highlighting the issue of rampant gender discrimination across the world.
   2) Highlighting the issue of gender discrimination in education and its impact.
   3) Highlighting the diseased social mindset against women and results thereof.
   4) Highlighting the need to educate women to live a dignified and independent life.

27. **'Consider the following statements:**
   a) Girls are deprived of education a they are considered merely as a burden not an asset.
   b) A nation's journey towards progresses will be compromised if women are not educated.
   c) It is imperative to educate a girl, as it will mean that the whole family will be educated.
   Which of the above statements can be inferred from the above passage?
   1) (a) and (b)   2) (b) and (c)
   3) (a) and (c)   4) (a), (b) and (c)

28. **Which of the following inferences can be drawn from the above passage?**
   1) Laws alone will not address the problem of exploitation of woman.
   2) Girls are subjected to all kinds of abuse since their birth because they are physically weak.
   3) There is a need to change the mindset of people and ensure that girls and boys are treated equally.
   4) Despite the top positions held by women, they are still victims of discrimination in society.

29. **View the statements in the context of the passage.**
   a) The modern thinking still is overshadowed by our ancient traditions and culture.

b) 111 treatment of women from birth onwards adversely impacts their personality.

c) Women who are economically independent are more confident of themselves.

Which of the above sentences is/are correct in the context of the passage?

1) (a) only   2) (a) and (c)

3) (a) and (b)   4) al of the above.

30. **Which of the following sentence is the message conveyed in the passage?**

1) Women are still considered a Liability on the families as it is presumed that they will be married to another family.

2) An equal society will be peaceful and progressive society.

3) The need of the hour is to educate women so that they can progress together with their male counterpart.

4) The piecemeal changes taking place in the society are having a positive impact on women.

PASSAGE III

Should politicians be invited to speak at colleges? Yes, of course, more and all should. It brings political discourse to the young, as clearly politics is a part of everything we do. People need to have both informed and well thought thorough opinions in order to guide their own participation. The danger is not from more politics, the danger is from less politics that operates only at the margins of societies. Making politics mainstream and creating a two way communication channel is part of the traditional role of higher education institutions.

Student politics have always played a significant role in the national politics of most nations. Universities have traditionally been places where politicians come to test or spread their ideas amongst the bold and innocent questioners who will be their vote bank in the future. Not only are students unions an active training ground for choosing a political life, they are also the best place to learn how to engage in civil debate with political authorities for those not seeking active participation in political careers. It is a tradition in the grand old colleges and universities the world over to interact with past, present and future politicians. Oxford and Cambridge clubs have invited controversial speakers and listened to the most extreme views. Many have disagreed with them and boycotted them too. Others have protested from a far. And yet, many others have listened and calmly agreed or disagreed to the speakers they listened to. It is the mark of a mature mind to be able to give the opposing point of view a fair hearing and then to be able to walk away from it. It is also a mark of an intelligent mind to be able to process the various points of view they collate and to form an independent yet not set-in-stone opinion. This opinion surely influences their personal practice of politics – local or national, active or passive.

This is a great time to call for more speakers with a variety of views to reach out to the young and to support disciplined debates. It is right to develop the habit of questioning and open discourse. To ask questions and make politicians answerable is at the root of democracy – the youth are often given more is away as they learn these processes.

Questions:

31. **Which of the following is the central theme of the above passage?**

1) Need for spreading awareness about political behavior at the university level.

2) Significance of political debates by speakers and politicians at education institutions.

3) How politicians use universities to influence the young minds as their" future vote banks.

4) Political discourse at university helping to strengthen democracy and youth participation.

32. **"The danger is not from more politics, the danger is from less politics…" what does this line imply?**

a) That the more the students are aware of the political goings on the better it is for the nation.

b) More political debates offer more chances of unearthing possible wrongdoings.

c) More politics bring more inclusivity of the whole society rather than a select few.

Choose the correct code:

1) (a) and (c)   2) (a) and (b)
3) (c) only   4) (b) and (c)

33. **"Universities have traditionally been places where politicians come to test or spread their ideas". Why?**

a) Because if the young minds accept their ideas then can make it to the masses.

b) The politicians find an opportunity to verify their ideas amongst students before taking them to the masses.

c) So that students, the future generation of a nation, can make an informed choice.

Choose the correct code:

1) (a) and (b)   2) (b) and (c)
3) (a) and (c)   4) all of the above

34. **Consider the following statements:**

a) Student union activism is foremost for a future career in politics.

b) A fair hearing must be given to opposing points of view before rejecting them.

c) In universities students get to form their political views and understand that politics is an integral part of their lives.

Choose the correct code:

1) (a) and (b)   2) (b) only
3) (b) and (c)   4) (c) only

35. **Which of the following inference can be made from the passage?**

a) Better student politics can lead to improved politic at the national level.

b) A stimulating political debate will help students form independent opinions yet not be rigid.

c) During such debate the students can ask questions which if otherwise asked might trigger a controversy.

1) (a) and (b)   2) (b) and (c)
3) (c) and (a)   4) All of the above

PASSAGE IV

While dealing with the public servants, anywhere in india, one finds bridery is one of the factors influencing any transaction. It is palpable on all levels, right from getting an authorized telephone line, a gas connection, and school admissions to jobs. The list doesn't end over here; to make it worse, it has even entered the defense and security domain. People have become so used to it and that they just take it as a routine part of the system. I think this is the root cause of the current situation in India. People as citizens do sometimes exercise their right to know the truth and question the government. But these rights are subverted owing to various vested interests and sadly, the question remains unanswered.

Media plays an important role in exposing the truth behind corruption cases. The murky details of many shady deals done by the political leaders also get exposed on TV channels. The game continues with number

11

of episodes on the TV news channels, giving them their much-wanted TRP, advertisers earn through their ads and of course the leaders get the exposure, debating on their role and actions. However, media needs to draw a line of control over the things that should be made public and things which shouldn't be disclosed, in any case. This includes the loopholes in the national security, the areas and methods of security operations, considering the worldwide broadcasts and the type of the audience. There have been incidents where overexposure of such terror assaults on television has been used by the assaulters to their benefit. On the other hand, such continuous telecasts of terror assaults on the television channels have led to some hypertension casualties among the common people.

At the end, it's the people, who should come together to fight out the things from the grass root levels. Bribe can be one of the reasons for the rise in national and international problems in india and it should be tackled on the high priority. To summarize, I would say to ensure true development in india; we should start right from working against the bribe.

36. Which of the following is the central theme of the above passage?
1) Dealing with the bribery menace in india.
2) Role of media in containing rampant corruption.
3) Bribery a bane to Indian growth and development.
4) Handling corrupt public service in india.

37. Consider the following statements:
a) It is becoming imperative to bribe the public servants in india.

b) It is important for the public servants to fulfill their duty by serving the people.
c) The current prevalence of corruption is an outcome of people's indifference to the issue.
In the context of the passage, which of the passage is/are incorrect?
1) (a) and (b)   2) (a) and (c)
3) (b) and (c)   4) all of the above

38. Which of the following may be inferred from the above passage?
1) The root cause of all major problems in india is public apathy.
2) Spiraling inflation is responsible for corruption in the country.
3) The country can tread on the path of development, if there is no bribery.
4) Media is to certain extent responsible for terrorism in the country.

39. Which of the following statement(s) may be inferred by the above passage?
a) The involvement of our politicians in murky arms deals cost the lives of security personnel.
b) In a democratic country, people are bound to question the actions of the government.
c) In india, people's right to know is often high jacked by other stakeholders having vested interests.
1) (a) only   2) (b) and (c)
3) (c) only   4) all of the above

40. The media is considered as the watchdog in a democratic set up because:
1) it is the medium through which people come together to flight out the things from the grass root.
2) it exerted pressure on the government through which people can get their grievances redressed.
3) it provides vital clues to terrorists by exposing security operations to the public.

4) it exposes the wrong doings of the corrupt and can help people exercise strict vigil.

PART – III

41. **If the side of the square increases by 40%, then the area of the square increases by**
    1) 16%   2) 40%
    3) 96%   4) 116%

42. **If 28 cartons of a juice cost Rs.21, then 7 cartons would cost?**
    1) Rs.5.25   2) Rs. 5.5
    3) Rs. 6.4   4) Rs. 7

43. **A worker is paid Rs. 20 for each day he works, and he is paid proportionately for any fraction of a day he works. If during one week he works, 1/8, 2/3, ¾, 1/3 and 1 full day, what are his total earnings for the week?**
    1) Rs. 40.75   2) Rs. 52.5
    3) Rs. 54   4) Rs. 57.5

44. **If the product of 3 consecutive integers is 210 then the sum of the two smaller integers is**
    1) 5   2) 11
    3) 12   4) 13

45. **Dal costs 1/3 as much as rice, rice costs 5/4 as much as eggs. Eggs cost what fraction of the cost of dal.**
    1) 5/12   2) 4/5
    3) 5/4   4) 12/5

46. **Which of the following integers has the most divisors?**
    1) 88   2) 91
    3) 95   4) 99

47. **Successive discounts of 20% and 15% are equal to a single discount of**
    1) 30%   2) 32%
    3) 34%   4) 35%

48. **If a diesel hose A can fill a car tank in 20 minutes and a diesel hose B can fill up the same tank in 15 minutes, how long will it take for the two hoses to fill the car tank together?**
    1) 5 minutes   2) 15/2 minutes
    3) 60/7 minutes   4) 65/7 minutes

49. **If x/y = 4 and y is not 0, what percentage (to the nearest percent) of x is 2x-y?**
    1) 25   2) 57
    3) 75   4) 175

50. **If x>2 and y>-1, then**
    1) xy>-2   2) –x<2y
    3) xy<-2   4) –x>2y

51. **If 31% of a number of 46.5 the number is**
    1) 150   2) 155
    3) 160   4) 165

52. **By selling an article for Rs. 247.5, you get a profit of 0.55. The cost of the article in Rs. is**
    1) 210   2) 220
    3) 225   4) 224

53. **A merchant sold his goods for Rs. 75 at a profit % equal to the cost. The cost in Rs. is**
    1) 60   2) 70
    3) 40   4) 50

54. **A sum of money will double itself in 16 years at simple interest with yearly rate of**
    1) 10%   2) ¼%
    3) 8%   4) 16%

55. **If the radius of a circle is decreased by 50%, its area is reduced by -------%.**
    1) 25   2) 50
    3) 75   4) 100

56. **If the price of sugar rises from f 6 per kg to Rs. 7.5per kg, a person to have no expenditure on sugar, will have to reduce his consumption of sugar by ---------%**
    1) 15   2) 20
    3) 25   4) 30

57. **A student who secures 20% marks in an examination fails by 30 marks. Another student who secures 32% marks gets 42 marks more than those required to pass. The percentage of marks required to pass the subject is**

1) 30   2) 28
3) 20   4) 25

58. **By selling toffees at 20 per Re.1, he looses 4%. In-order to gain 20%, he must sell --------- toffees for Re.1.**
    1) 16   2) Rs.20
    3) 25   4) Rs.64

59. **The simple interest on sum of money is 1/9 of the principle and the number of years is equal to the rate per cent per annum. The rate per cent per annum is**
    1) 3   2) 1/3
    3) 10/3   4) 3/10

60. **Rs. 1600 at 10% per annum compound interest compounded half-yearly amount to Rs. 1944.81 in---------- years.**
    1) 2   2) 3
    3) 3/2   4) 5/2

PART – IV

Directions: Each question below is followed by two statements numbered as (a) and (b). You have to determine whether the data given in the statements is sufficient for answering the question. Use the data given, plus your knowledge of mathematics and every day facts, to mark your answer as.

1. If statement (a) ALONE is sufficient to answer the question, but statement (b) ALONE is not sufficient.

2. If statement (b) ALONE is sufficient to answer the question, but statement (a) ALONE is not sufficient.

3. If, both statements TOGETHER are needed to answer the questions, but neither statement alone is sufficient.

4. If not enough facts are given to answer the question.

61. **How many doctors are practicing inthis town?**
    Statement:
    a) There is one doctor per seven hundred residents.
    b) There are 16 wards with each ward having as many doctors as the number of wards.

62. **Which direction is Sunny facing now?**
    Statement:
    a) If Sunny turns to his right and again turns to his right, he will be facing North.
    b) If Sunny walks some distance and turns left and again walks some distance, then his face will be towards left of Dinesh who is facing South.

63. **What is the 999th term of the series S?**
    Statement:
    a) The first four terms of S are $(1+1)^2$, $(2+1)^2$, $(3+1)^2$ and $(4+1)^2$
    b) For every x, the xth term of S is $(x+1)^2$

64. **On which day of the week did Hitesh visit the zoo?**
    Statement:
    a) Hitesh did not visit zoo either on Tuesday or on Thursday
    b) Hitesh visited zoo two days before his mother reached his house which was day after Monday

65. **What is the value of 1/x+1/y+1/z?**
    Statement:
    a) $(xy+xz+yz)/xyz = 4$ b) $x+y = 3$

66. **What is the volume of soil required to fill a flower box?**
    Statement:
    a) The box is 80cm wide
    b) The box is 1 metre long

67. **X and Y are integers that are both less than 10. Is X greater than Y?**
    Statement:
    a) X is a multiple of 3
    b) 7 is a multiple of 2

68. **Are two triangles congruent?**
    Statement:
    a) Both triangle are right triangles
    b) Both triangle have the same perimeter

69. **How many children are there in the row of children facing north?**
Statement:
a) Vishakha who is fifth from the left and is eighth to the left of Ashish who is twelfth from the right end.
b) Rohit is fifth to the left of Nisha who is seventh from the right end and eighteenth from the left end

70. **How much money do Vivek and Suman have together?**
Statement:
a) Suman has 20 rupees less than what Tarun has
b) Vivek has 30 rupees more than what Tarun has

71. **Vinod's and Javed's salaries are in the proportion of 4:3 respectively. What is Vinod's salary?**
Statement:
a) Javed's salary is 75% that of Vinod's salary
b) Javed's salary is Rs.4,500

72. **What is the code for 'is' in the code language?**
Statement:
a) In the code language, 'shi tu ke' means 'pen is blue'
b) In the same code language, 'ke si re' means 'this is wonderful'

73. **What is the numerical code for 'water' in a certain code?**
Statement:
a) The code for 'give me water' is '719'
b) The code for ' you can bring water for me' is written as '574186!

74. **What is the colour of the fresh grass?**
Statement:
a) Blue is called green, red is called orange, orange is called yellow

b) Yellow is called white, white is called black, green is called brown and brown is called purple.

75. **The Chairman of a big company visits one department; on Monday of every week except for the Monday of third week of every month. When did he visit the Purchase department?**
Statement:
a) He visited Accounts department in the second week of September after having visited Purchase department on the earlier occasion.
b) He had visited Purchase department immediately after visiting Stores department but before visiting Accounts department

76. **In a certain code language, '297' means 'tie clip button'. Which number means 'button' in that language?**
Statement:
a) In that language, '926' means clip your tie'
b) In that language, '175' means 'hole and button'

77. **A fly crawls around the outside of a circle once. A second fly crawls around the outside of a square once. Which fly travels farther?**
Statement:
a) The diagonal of the square is equal to the diameter of the circle.
b) The fly crawling around the circle took more time to complete his journey than the fly crawling around the square.

78. **Which code word stands for 'good' in the coded sentence 'sin co bye' which means 'He is good'?**
Statement:
a) In the same code language, 'co mot det' means 'They are good'.
b) In the same code language, 'sin mic bye' means 'He is honest'

79. **What time did the train leave today?**
    Statement:
    a) The train normally leaves on time
    b) The scheduled departure is at 14:30

80. **How is M related to N?**
    Statement:
    a) P, who has only two kids, M and N, is the mother-in-law of Q, who is sister-in-law of N
    b) R, the sister-in-law of M, is the daughter-in-law of S, who has only two kids, M and N

PART – V

1. Directions: In this section you are required to spot errors in sentences. Choose and mark the part/sentence with the error.

81. 1) Since Shastri   2) Was injured
    3) He was substituted   4) Mr. Sidharth

82. 1) It was not clear
    2) Who he was referring to
    3) To the daughter
    4) Or to the mother

83. 1) Each year each of his students
    2) Did well in the examination
    3) Thus enhancing his reputation
    4) No error

84. 1) The war
    2) Among the Greeks and the Persians
    3) Was fought in Persepolis
    4) No error

85. 1) I am glad tomorrow is a holiday
    2) Supposing if he fails, what will be do
    3) I have been ill since july
    4) No error

86. 1) Neither does he come nor does he write
    2) I have bought many fireworks as rockets and etc.
    3) I am fond of all games
    4) I want to know why I have been detained.

87. 1) In fact it is not hot
    2) It is a very good film
    3) I liked it on the whole

    4) Though he is fat he runs fast

88. 1) Every man, woman   2) And child
    3) In the house on fire   4) Have been saved

89. 1) Scientists explain thunder
    2) As the sound produced by
    3) The rapid expanding
    4) Of air heated by lightning

90. 1) Smoking is not normally allowed
    2) In gas stations
    3) Because there is too many easily
    4) Combustible material in the vicinity

II) Pick out the most effective word to make the sentence meaningfully complete.

91. **He was charged --------- a whole series of crimes.**
    1) for   2) with
    3) by   4) on

92. **It is difficult to ------------ her nonsense.**
    1) put up with   2) pull through
    3) get along with   4) put out

93. **His name has become a synonym ------- evil.**
    1) within   2) from
    3) of   4) in

94. **There is the book that you asked**
    1) for   2) of
    3) after   4) at

95. **I get up everyday ------- 5 o' clock.**
    1) about   2) from
    3) by   4) at

III) Choose the synonym for the words given:

96. **Waylay**
    1) road map   2) ambush
    3) journey   4) direction

97. **Thespian**
    1) actor   2) daydreamer
    3) magician   4) oldman

98. **Regal**
    1) Basic   2) Legal
    3) Major   4) Royal

99. **Tepid**
    1) Boiling   2) Freezing

3) Gaseous   4) Luckewarm   3) Splendor   4) Perseverance

100. Tenacity

1) Ingratitude   2) Decimation

MBA 2016 – ANSWERS

1……2	2……2	3…….3	4…..2	5……3	6……1	7…….1	8……3	9…..2	10……4
11…..1	12…..4	13…..2	14….3	15……4	16……4	17….2	18…..3	19…..3	20…..1
21….3	22……4	23…..4	24….3	25……3	26……4	27….1	28……3	29….4	30….3
31…2	32……1	33…3	34….3	35……3	36….1	37….2	38……4	39….2	40…..4
41….3	42……1	43…4	44…..2	45…..4	46….1	47….2	48….3	49….4	50…1
51….1	52….*	53….4	54….*	55…..3	56….2	57….4	58…..1	59….3	60….1
61….2	62…..*	63….*	64…2	65….1	66….4	67….4	68…..4	69…..*	70….4
71…2	72…..3	73….4	74…2	75…..1	76….*	77….1	78….*	79….4	80…..1
81…4	82…..2	83….1	84…..2	85……2	86….2	87….2	88….4	89….3	90….3
91…..2	92….3	93….3	94….1	95……3	96….2	97….1	98…..4	99….4	100….4

MBA 2016 – DETAILED SOLUTIONS
PART – I

1. **(2)**
   Utilization of excess capacity is a major factor since the company wanted to improve its overall performance.

2. **(2)**
   Runeway's declining market share is a major factor since the company aims at arresting it and improving its profits and performance,

3. **(3)**
   Runeway's 100 years in business is a minor factor since it's is the performance at present by the company and its competitors is counted.

4. **(2)**
   Consumer's acceptance of the new line is a major factor that will improve the sales of the company,

5. **(3)**
   Competition from small manufacturers is a major factor since it may not directly affect the sales of the company.

6. **(1)**
   Need to increase unit sales is the major objective of the company since the company is keen on increasing its sales and overall performance.

7. **(1)**
   Reputation of Runeway helps the company retain its sales and performance.

8. **(3)**
   Protection of the small dealer is a minor factor since it will not directly impact the performance of the company.

9. **(2)**
   Importance of styling is a major factor since this will increase the demand and sales of the company.

10. **(4)**
    Sales to departmental stores is a major assumption since the company expects its sales to improve when it is done through departmental stores.

11. **(1)**
    Motivating Japanese salesmen is the major objective of the company in order to improve the sales and performance.

12. **(4)**
    Using US compensation methods in Japan is an assumption since the company would like to adopt the same in Japan and improve the performance of salesmen and hence its sales.

13. **(2)**
    Labour management relations is a major factor that will affect the performance of salesmen and others in the company and in turn the profit and performance of the company.

14. **(3)**
    Job security of Japanese workers is a minor factor from the point of company but a major one from the view point of workers.

15. **(4)**
    Retaining the current XY sales force is a major assumption with which the company wants to work and improve its performance.

16. **(4)**
    Doubling the sales force is again major assumption that company has to increase its sales.

17. **(2)**
    Determining a sales compensation plan is a major factor since this will affect the performance of salesmen and hence the company.

18. **(3)**
    Difference in American and Japanese fringe benefits is a minor factor since its effect on the sales may not affect the performance of the company.

19. **(3)**

Understanding the Japanese class system is a minor factor considering its effect on sales and performance of the company.

20. (1)

Expanding XY product line is the major objective of the company in order to improve the performance of the company.

PART – III

41. (3)

Let the side of the square be a

Its area $= a^2$

New side $= \frac{140}{100}a = \frac{7a}{5}$

New area $= (\frac{7a}{5})^2 = \frac{49a^2}{25}$

Increase in area $= \frac{49a^2}{25} - a^2 = \frac{24a^2}{25}$

$\therefore$ Percentage increase in area

$$= \frac{\left(\frac{24a^2}{25}\right)}{a^2} * 100 = 96\%$$

42. (1)

Cost of one carton $= \frac{21}{28}$

$\therefore$ Cost of 7 cartons $= 7*\frac{21}{28} = $ Rs. 5.25

43. (4)

Total Earning $= \left(\frac{1}{8} + \frac{2}{3} + \frac{3}{4} + \frac{1}{3} + 1\right) * 20$

$= \left(\frac{3+16+18+8+24}{24}\right) * 20$

$= \frac{69}{24} * 20 = 57.5$

44. (2)

Let the three integers be x, x+1 and x+2

Product $= x(x+1)(x+2) = 210$

Clearly $5*6*7 = 210$

Therefore three integers are 5,6,7

Sum of two smaller integers $= 5+6 = 11$

45. (4)

Let the cost of Dhall, Rice and Egg be D, R and E respectively.

Then $D = \frac{1}{3}R \Rightarrow R = 3D$

$R = \frac{5}{4}E$

$\therefore E = \frac{4R}{5}$

$= \frac{4}{5}(3D) = \frac{12D}{5}$

$Egg = \frac{12}{5}(Rice)$

46. (1)

If $N = P_1^{\alpha_1} P_2^{\alpha_2} P_3^{\alpha_3} \ldots \ldots P_k^{\alpha_k}$

where $P_1, P_2, \ldots \ldots P_k$ are prime number then number of divisions of N

$= (\alpha_1 + 1)(\alpha_2 + 1)\ldots(\alpha_k + 1)$

$88 = 2^3 * 11$

Number of divisors of 88

$= (3+1)(1+1) = 4*2 = 8$

$91 = 7*13$

Number of divisors of 91

$= (1+1)(1+1) = 2*2 = 4$

$95 = 5*19$

Number of divisors of 95

$= (1+1)(1+1) = 2*2 = 4$

$99 = 3^2*11$

Number of divisors of 99

$= (2+1)(1+1) = 3*2 = 6$

$\therefore$ 88 has most divisors.

47. (2)

Formula :

Single discount equal to successive discounts

X% and Y% is $\left(X + Y - \frac{XY}{100}\right)\%$

In this problem $= X = 20\%$

$= Y = 15\%$

Single discount $= 20+15-\frac{20*15}{100}$

$\qquad = 35-3 = 32\%$

48. (3)

Part of the tank filed by A in 1 minute $=\frac{1}{20}$

Part of the tank filled by B in 1 minute $=\frac{1}{15}$

Part of the tank filled by both A and B in 1 minute

$$=\frac{1}{20}+\frac{1}{15}$$

$$=\frac{3+4}{60}=\frac{7}{60}$$

∴ Time taken by A and B to fill the car tank $=\frac{60}{7}$ minutes

49. (4)

$$\frac{x}{y}=4 \Rightarrow \frac{y}{x}=\frac{1}{4}$$

? % of x = 2x-y

$$\Rightarrow \frac{?}{100}*x = 2x-y$$

$$\therefore ? = \frac{2x-y}{x}*100$$

$$= \left(2-\frac{y}{x}\right)*100$$

$$= \left(2-\frac{1}{4}\right)*100$$

$$= \left(\frac{7}{4}\right)*100 = 175$$

50. (1)

x>2; y>-1

Therefore xy>2x(-1)

$\Rightarrow$ xy > -2

51. (1)

Let the number be x

Then 31% of x = 46.5

$$\Rightarrow \frac{31}{100}*x = 46.5$$

$$\therefore x = \frac{46.5*100}{31} = 150$$

52. (*)

Cost Price $= \frac{100}{100+\text{Profit percent}}*$Selling Price

$$= \frac{100}{100+0.5}*247.5$$

$$= \frac{24750}{100.5} = \text{Rs. } 246.27$$

53. (4)

Let the cost price be Rs. x

Profit percentage = x%

Selling Price $= \frac{100+\text{Profit }\%}{100} *$ cost price

$$\Rightarrow 75 = \left(\frac{100+x}{100}\right)*x$$

$$\Rightarrow x^2+100x = 7500$$
$$\Rightarrow x^2+100x - 7500 = 0$$
$$\Rightarrow x^2+150x - 50x-7500 = 0$$
$$\Rightarrow x(x+150) - 50(x+150) = 0$$
$$\Rightarrow (x+150)(x-50) = 0$$
$$x = 50 \text{ (or) } -150$$

Cost price is not negative

∴ Cost price = Rs. 50

54. (*)

Let the principal be P.

If sum doubles then simple interest= 2P-P=P

$$S.I = \frac{PnR}{100}$$

$$\Rightarrow P = \frac{P*16*R}{100} \qquad \therefore R = \frac{100}{16} = \frac{25}{4} \%$$

55. (3)

Let the radius of the circle be r.

Then area $= \pi r^2$

Decreased radius $= 50\%$ of r

$$= \frac{50}{100}*r = \frac{r}{2}$$

New area $= \pi\left(\frac{r}{2}\right)^2 = \frac{\pi r^2}{4}$

Decrease in area $= \pi r^2 - \frac{\pi r^2}{4} = \frac{3\pi 4^2}{4}$

Decreased area percentage $= \frac{\left(\frac{3\pi r^2}{4}\right)}{\pi r^2} * 100 = 75\%$

56. (2)

Formula : If price of a commodity increased by R% then the reduction in consumption so as not to increase the expenditure is $\left(\frac{R}{100+R} * 100\right)\%$

$R = \frac{7.5-6}{6} * 100 = \frac{1.5}{6} * 100 = 25\%$

Required reduction $= \frac{25}{100+25} * 100$

$= \frac{25}{125} * 100 = 20\%$

57. (4)

Let the maximum mark be x and pass mark by y

Then $\frac{20x}{100} = y-30$

$\frac{32x}{100} = y+42$

$\frac{12x}{100} = 72$

$\therefore x = 600$

Now y $= \frac{20x}{100} + 30$

$= \frac{20*600}{100}+30$

$= 120+30 = 150$

Pass mark $= 150$

Pass mark percentage $= \frac{150}{600} * 100 = 25\%$

58. (1)

Selling price of 1 toffee $= \frac{100}{20} = 5$ paise

Cost price of 1 toffee $= \frac{100}{96} * 5$

If the profit is 20% then

Selling price of 1 toffee $= \frac{120}{100}\left(\frac{100}{96} * 5\right)$

$= \frac{120*5}{96}$ paise

For 1 rupee, number of toffee to be sold

$= \frac{100}{\frac{120*5}{96}} = \frac{100*96}{120*5} = 16$

59. (3)

Let the principle be P

Then S.I. $= \frac{P}{9}$

Number of years = rate = R

$S.I = \frac{PnR}{100}$

$\Rightarrow = \frac{P*R*R}{100}$

$\therefore R^2 = \frac{100}{9}$

$\Rightarrow = \frac{10}{3} \%$

60. (1)

When interest is compounded half yearly then

Amount $= P\left[1 + \frac{\left(\frac{R}{2}\right)}{100}\right]^{2n}$

P = Rs. 1600

Amount = Rs. 1944.81

R = 10%

$\Rightarrow 1944.81 = 1600\left[1 + \frac{\left(\frac{10}{2}\right)}{100}\right]^{2/n}$

$\Rightarrow \left[1 + \frac{5}{100}\right]^{2n} = \frac{1944.81}{1600} = 1.21550625$

$(1.05)^{2n} = 1.21550625 = (1.05)^4$

$\Rightarrow 2n = 4$

$\therefore n = 2$ years

PART - IV

61. **(2)**

From Statement (a):

If x is the total number of residents, then

number of doctors $= \dfrac{x}{700}$

Since x is not known, statement (a) alone is no sufficient.
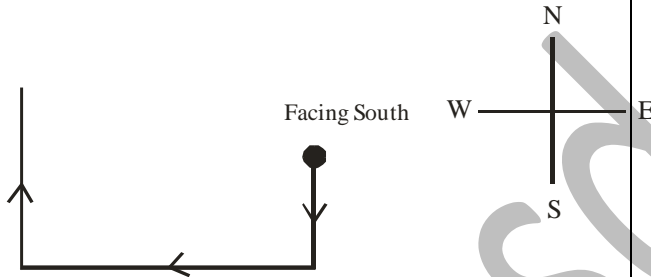
From Statement (b):

Total number of doctors in the town = number of wards * number of doctors in each word = 16 * 16 = 256

∴ Statement (b) alone is sufficient

62. **(*)**

From Statement (a)

A person faces south shall face north on turning to his right twice.

Facing South

Therefore Sunny faces south now

∴ Statement (a) alone is sufficient.

From Statement (b)

We know that after walking, Sunny shall face towards left of Dinesh facing south (i.e. east). Clearly a person walking southwards shall face east on turning to his left. Thus Sunny is facing south.

∴ Statement (b) alone is sufficient.

63. **(*)**

From Statement (a)

First term $= (1+1)^2$

Second term $= (2+1)^2$

Third term $= (3+1)^2$

Fourth term $= (4+1)^2$

∴ 999th term $= (999+1)^2$

∴ Statement (a) alone is sufficient.

From Statement (b):

xth term of S $= (x+1)^2$

∴ 999th term of S $= (999+1)^2$

Therefore statement (b) alone is sufficient.

64. **(2)**

Statement (a) alone is not sufficient.

From Statement (b)

Hitesh mother reached his house on Tuesday 9day after Monday)

∴ Hitesh visited the zoo on Sunday

∴ Statement (b) alone is sufficient.

65. **(1)**

From Statement (a)

$$\frac{(xy + xz + yz)}{xyz} = 4$$

$$\Rightarrow \frac{xy}{xyz} + \frac{xz}{xyz} + \frac{yz}{xyz} = 4$$

$$\Rightarrow \frac{1}{z} + \frac{1}{y} + \frac{1}{x} = 4$$

∴ Statement (a) alone is sufficient.

From Statement (b):

x+y = 3

Since the value of z is not given, statement (b) alone is not sufficient.

66. **(4)**

From statement (a) and (b)

Width of the box = 80 cm

Length of the box = 1m = 100 cm

Volume of the box = width*length*height

$= 80*100*$height

Since height is not given, we cannot find the answer.

67. **(4)**

From statements (a) and (b)

X = 3,6,9

Y = 2,4,6,8

We cannot conclude whether X is greater than Y.

For example:

If X = 6 and Y = 8

then X is less than Y

If X = 6 and Y = 4

then X is greater than Y

68. **(4)**

Congruent triangles have everything same. All sides and all angles are same for two congruent triangles. To check congruency we use AAS, ASA, SSS, AAA concepts

> A – Angle
> S - Side

When two triangle have one of these similar, then they are called congruent. For example in AAS, two angle and one side are same in two triangles.

From Statement (a) and Statement (b) side (s) and Angles (A) are not given, they are not sufficient.

69. **(*)**

From Statement (a)

Vishakha is 8th to the left of Ashish who is 12th from the right end.

∴ Vishakha is $8+12 = 20^{th}$ from the right end.

Also Vishakha is 5th from the left end

∴ Total number of children in the row
$$= 20+5-1 = 24$$

Statement (a) alone is sufficient.

From Statement (b)

Nisha is 7th from the right end and 18th from the left end.

Therefore total number of children in the row $= 7+18-1 = 24$

∴ Statement (b) alone is sufficient.

70. **(4)**

Let the amount with Suman, Tarun and Vivek have S, T and V respectively.

From Statement (a)
$$S = T-20 \quad ……(i)$$

From Statement (b)
$$V = T+30 \quad ……(ii)$$

Adding (i) and (ii)
$$S+V = 2T+10$$

Since the value of T is not given, both statements are not sufficient to get the answer.

71. **(2)**

Let the salaries of Vinod and Javed be 4x and 3x respectively.

From Statement (a)

Statement (a) is another form of the question.

Therefore Statement (a) alone is not sufficient.

From Statement (b)

> Jawed's Salary = Rs. 4500
> $\Rightarrow 3x = 4500$

$$\therefore x = \frac{4500}{3} = 1500$$

Vinod's salary $= 4x$
$$= 4*1500 =$$

Rs.6000

Therefore statement (b) alone is not sufficient.

72. **(3)**

From Statements (a) and (b)

shi	tu	ke	--	pen	is	blue
ke	is	re	--	this	is	Wonderful
Code	for	Is	--	ke		

73. **(4)**

From Statements (a) and (b)

| give | Me | Water | -- | 7 | 1 | 9 |

you can bring

| water | for | me | -- | 5 | 7 | 4 | 1 | 8 | 6 |

Code for water is either 7 or 1

Therefore statements (a) and (b) are not sufficient to get the answer.

74. **(2)**

Statement (a) alone is not sufficient.

The colour of fresh grass is 'green' and from statement (b) green is called 'brown'. So the colour of fresh grass is 'brown'.

75. **(1)**

From Statement (a)

The Chairman visited purchase department on Monday of the first week of September. Therefore statement (a) done is sufficient.

From Statement (b)

The time of visit of no department is mentioned.

Therefore Statement (b) alone is not sufficient.

76. (*)

297 – tie clip button

From Statement (a)

| 9 | 2 | 6 | -- | **clip** | **your** | **tie** |

| 2 | 9 | 7 | -- | tie | clip | button |

Code for 'button' is '7'

Statement (a) alone is sufficient.

From Statement (b)

| 1 | 7 | 5 | -- | hole | and | button |

| 2 | 9 | 7 | -- | tie | clip | button |

Code for 'button' is '7'

Statement (b) alone is sufficient.

77. (1)

From Statement (a)

Let the diameter of the circle = diagonal of square = D

Circumference of the circle

$$= \pi r$$
$$= \pi (2r)$$
$$= \pi * diameter = \pi D$$

The first fly travels a distance equal to π.

Perimeter of the square = 4a

$$= \frac{4}{\sqrt{2}} \left(\sqrt{2} \, a \right)$$

$$= 2\sqrt{2} * diagonal = 2\sqrt{2}D$$

Second fly travels a distance equal to $2\sqrt{2}D$

Since $2\sqrt{2}D < \pi D$

∴ The first fly travels farther

Therefore statement (a) alone is sufficient.

Statement (b) alone is not sufficient since one fly might have crawled faster than the other.

78. (*)

He is good – sin co bye

From Statement (a)

| They | are | good | -- | co | mot | det |

| He | is | good | -- | sin | co | bye |

Code for 'good' is 'co'

Statement (a) alone is sufficient.

From Statement (b)

| He | is | honest | -- | sin | mic | bye |

| He | is | good | -- | sin | co | bye |

Code for 'good' is 'co'

Statement (b) alone is sufficient.

79. (4)

Even from both Statements (a) and (b) together do not reveal the exact time of departure of the train today

Therefore both statements are not sufficient to answer the question.

80. (1)

From Statement I, P is the mother of M and N, while Q is the daughter-in-law of P and Sister-in-law of N. Thus Q is M's wife and hence M is N's brother. Therefore Statement (a) alone is sufficient.

From Statement (b) M and N are the children of S. Also R is the daughter-in-law of S and sister-in-law of M. So R is N's wife and thus, N is M's brother. Hence, M is either brother or sister of N.

Therefore Statement (b) alone is not sufficient.

PART – V

81. (4)

Change as "by Mr. Sidharth'

82. (2)

change as "who he was referring to"

83. (1)

"Each year all of his students"

84. (2)

change as "between the Greeks and the Persians"

85. (2)

changes as "Supposing he fails, what he will do"

86. **(2)**

change as "I have bought many fireworks such as rockets etc"

87. **(2)**

change as "It was a very good film"

88. **(4)**

change as "has been saved"

89. **(3)**

change as "the rapidly explanding"

90. **(3)**

change as : "because there are too many easily"

96. **(2)**

verb – waylaid, waylaying – to intercept and attack from an ambush

99. **(4)**

Tepid – characterized by lack of force or enthusiasm, lukewarm, moderately warm

100. **(4)**

Tenacity—capable of being retained as it is, not giving up and persevering.

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