THE PRINCETON REVIEW CAT SAMPLE PAPER 2

INSTRUCTIONS – Please read these carefully before attempting the test

1. This test is based on pattern of previous years' CAT papers.

2. There are four sections
    Section I – English (40 Questions)
    Section II – Reading Comprehension (50 Questions)
    Section III – Quantitative Ability (45 Questions)
    Section IV – Data Interpretation & Data Sufficiency (40 Questions)

3. *The total time allotted is 2 hours exactly.* Please note your start time and end time on the answer sheet. Do not take more than 2 hours, or you will get a wrong assessment.

4. Please fill all the details, as asked on top of the answer sheet.

5. Please try to maximize your attempt overall, *but you need to do well in all sections.*

6. *There is 1 mark for every right answer and 0.25 negative mark for every wrong one.*

7. There are four sections in this test, do first two sections in first hour and second two sections in second hour.

8. Since it is a time constrained test and you have 2 hours, and all questions carry equal marks, please do not get stuck on any question, move fast to try and do easier ones.

9. *Please do all scratch work on paper only, no extra sheets to be used.* Put all your answers on the answer sheet.

10. *Relax. You are competing against yourself.*

SECTION – I

Number of Questions: 40

DIRECTIONS for Questions 1 to 10: Read each of the short passages given below and answer the question that follows it.

1. Three airlines - IA, JA and SA - operate on the Delhi-Mumbai route. To increase the number of seats sold, SA reduced its fares and this was emulated by IA and JA immediately. The general belief was that the volume of air travel between Delhi and Mumbai would increase as a result.
   Which of the following, if true, would add credence to the general belief?
   [1] Increase in profitability of the three airlines.
   [2] Extension of the discount scheme to other routes.
   [3] A study that shows that air travellers in India are price-conscious.
   [4] A study that shows that as much as 80% of air travel in India is company-sponsored.

2. According to McNeill, a Brahmin priest was expected to be able to recite at least one of the Vedas. The practice was essential for several centuries when the Vedas had not yet been written down. It must have had a selective effect, since priests would have been recruited from those able or willing to memorise long passages. It must have helped in the dissemination of the work, since a memorised passage can be duplicated many times.
   Which one of the following can be inferred from the above passage?
   [1] Reciting the Vedas was a Brahmin's obligation
   [2] The Vedic priest was like a recorded audio cassette
   [3] McNeill studied the behaviour of Brahmin priests
   [4] Vedic hymns had not been scripted

3. Developed countries have made adequate provisions for social security for senior citizens. State insurers (as well as private ones) offer medicare and pension benefits to people who can no longer earn. In India, with the collapse of the joint family system, the traditional shelter of the elderly has disappeared. And a State faced with a financial crunch is not in a position to provide social security. So, it is advisable that the working population give serious thought to building a financial base for itself.
   Which one of the following, if it were to happen, weakens the conclusion drawn in the above passage the most?
   [1] The investible income of the working population, as a proportion of its total income, will grow in the future.
   [2] The insurance sector is underdeveloped and trends indicate that it will be extensively privatised in the future.
   [3] India is on a path of development that will take it to a developed country status, with all its positive and negative implications.
   [4] If the working population builds a stronger financial base, there will be a revival of the joint family system.

4. Various studies have shown that our forested and hilly regions, and, in general, areas where biodiversity – as reflected in the variety of flora – is high, are the places where poverty appears to be high. And these same areas are also the ones where educational performance seems to be poor. Therefore, it may be surmised that, even disregarding poverty status, richness in biodiversity goes hand in hand with educational backwardness.
   Which one of the following statements, if true, can be said to best provide supporting evidence for the surmise mentioned in the passage?
   [1] In regions where there is little variety in flora, educational performance is seen to be as good as in regions with high variety in flora, when poverty levels are high.
   [2] Regions which show high biodiversity also exhibit poor educational performance, at low levels of poverty.
   [3] Regions which show high biodiversity reveal high levels of poverty and poor educational performance.
   [4] In regions where there is low biodiversity, at all levels of poverty, educational performance is seen to be good.

5. Cigarettes constitute a mere 20% of tobacco consumption in India, and fewer than 15% of the 200 million tobacco users consume cigarettes . Yet these 15% contribute nearly 90% of the tax revenues to the Exchequer from the tobacco sector. The punitive cigarette taxation regime has kept the tax base narrow, and reducing taxes will expand this base.
    Which one of the following best bolsters the conclusion that reducing duties will expand the tax base?
    [1] The cigarette manufacturers' association has decided to indulge in aggressive promotion.
    [2] There is a likelihood that tobacco consumers will shift to cigarette smoking if cigarette prices were to reduce.
    [3] The cigarette manufacturers are lobbying for a reduction on duties.
    [4] An increase in duties on non-cigarette tobacco may lead to a shift in favor of cigarette smoking.

6. Thomas Malthus, the British clergyman turned economist, predicted that the planet would not be able to support the human population for long. His explanation was that human population grows at a geometric rate, while the food supply grows only at an arithmetic rate.
    Which one of the following, if true, would not undermine the thesis offered by Malthus?
    [1] Population growth can be slowed down by the voluntary choices of individuals and not just by natural disasters.
    [2] The capacity of the planet to feed a growing human population can be enhanced through biotechnological means.
    [3] Human systems, and natural systems like food supply, follow natural laws of growth which have remained constant, and will remained unchanged.
    [4] Human beings can colonise other planetary systems on a regular and on-going basis to accommodate a growing population.

7. The company's coffee crop for 1998-99 totalled 8079 tonnes, an all time record. The increase over the previous year's production of 5830 tonnes was 38.58%. The previous highest crop was 6089 tonnes in 1970-71. The company had fixe d a target of 8000 tonnes to be realised by the year 2000-01, and this has been achieved two years earlier, thanks to the emphasis laid on the key areas of irrigation, replacement of unproductive coffee bushes, intensive refilling and improved agricultural practices. It is now our endeavour to reach the target of 10000 tonnes in the year 2001 -02.
    Which one of the following would contribute most to making the target of 10000 tonnes in 2001-02 unrealistic?
    [1] The potential of the productivity enhancing measures implemented up to now has been exhausted.
    [2] The total company land under coffee has remained constant since 1969 when an estate in the Nilgiri Hills was acquired.
    [3] The sensitivity of the crop to climatic factors makes predictions about production uncertain.
    [4] The target-setting procedures in the company have been proved to the sound by the achievement of the 8000 tonne target.

8. Animals in general are shrewd in proportion as they cultivate society. Elephants and beavers show the greatest signs of this sagacity when they are together in large numbers, but when man invades their communities they lose all their spirit of industry. Among insects, the labours of the bee and the ant have attracted the attention and admiration of naturalists, but all their sagacity seems to be lost upon separation, and a single bee or ant seems destitute of every degree of industry. It becomes the most stupid insect imaginable, and it languishes and soon dies.
    Which of the following can be inferred from the above passage?
    [1] Humankind is responsible for the destruction of the natural habitat of animals and insects.
    [2] Animals, in general, are unable to function effectively outside their normal social environment.
    [3] Naturalists have great admiration for bees and ants, despite their lack of industry upon separation.
    [4] Elephants and beavers are smarter than bees and ants in the presence of human beings.

9. In a recent report, the gross enrolment ratios at the primary level, that is, the number of children enrolled in classes one to five as a proportion of all children aged 6 to 10, were shown to be very high for most states; in many cases they were way above 100 percent! These figures are not worth anything, since they are based on the official enrolment data compile d from school records. They might as well stand for 'gross exaggeration ratios'.
    Which of the following options best supports the claim that the ratios are exaggerated?
    [1] The definition of gross enrolment ratio does not exclude, in its numerator, children below 6 years or above 10 years enrolled in classes one to five.

[2] A school attendance study found that many children enrolled in the school records were not meeting a minimum attendance requirement of 80 percent.

[3] A study estimated that close to 22 percent of children enrolled in the class one records were below 6 years of age and still to start going to school.

[4] Demographic surveys show shifts in the population profile which indicate that the number of children in the age group 6 to 10 years is declining.

10. Szymanski suggests that the problem of racism in football may be present even today. He begins by verifying an earlier hypothesis that clubs' wage bills explain 90% of their performance. Thus, if players' salaries were to be only based on their abilities, clubs that spend more should finish higher. If there is pay discrimination against some group of players -- fewer teams bidding for black players thus lowering the salaries for blacks with the same ability as whites – that neat relation may no longer hold. He concludes that certain clubs seem to have achieved much less than what they could have, by not recruiting black players.

Which of the following findings would best support Szymanski's conclusions?

[1] Certain clubs took advantage of the situation by hiring above-average shares of black players.

[2] Clubs hired white players at relatively high wages and did not show proportionately good performance.

[3] During the study period, clubs in towns with a history of discrimination against blacks, under-performed relative to their wage bills.

[4] Clubs in one region, which had higher proportions of black players, had significantly lower wage bills than their counterparts in another region which had predominantly white players.

DIRECTIONS for Questions 11 to 15: For the word given at the top of each table, match the dictionary definitions on the left (A, B, C, D) with their corresponding usage on the right (E, F, G, H). Out of the four possibilities given in the boxes below the table, select the one that has all the definitions and their usages correctly matched.

11. Exceed		
Dictionary Definition		Usage
A. To extend outside of, or enlarge beyond; used chiefly in strictly physical relations	E.	The mercy of god exceeds our finite minds.
B. To be greater than or superior to	F.	Their accomplishments exceeded our expectation
C. Be beyond the comprehension of	G.	He exceed his authority when he paid his brother's gambling debts with money from the trust
D. To go beyond a limit set by (as an authority or privilege)	H.	If this rain keeps up, the river will exceed its banks by morning

Answer choices:

[1]	A H	[2]	A H	[3]	A G	[4]	A F
	B F		B E		B F		B G
	C E		C F		C E		C H
	D G		D G		D H		D E

12. Infer		
Dictionary Definition		Usage
A. To derive by reasoning or implication	E.	We see smoke and infer fire
B. To surmise	F.	Given some utterance, a listener may infer from it things which the utterer never implied
C. To point out	G.	I waited all day to meet him, from this you can infer my zeal to see him

D.	To hint		H.	She did not take part in the debate except to ask a question inferring that she was not interested in the debate

Answer choices:

[1]			[2]			[3]			[4]		
	A	G		A	F		A	H		A	E
	B	H		B	H		B	G		B	F
	C	E		C	E		C	F		C	G
	D	F		D	G		D	E		D	H

13. Mellow		
Dictionary Definition		Usage
A. Adequately and properly ages so as to be free of harshness		E. He has mellowed with age
B. Freed from the rashness of youth		F. The tones of the old violin were mellow.
C. Of soft and loamy consistency		G. Some wines are mellow
D. Rich and full but free from stridency		H. Mellow soil is found in the Gangetic plains

Answer choices:

[1]			[2]			[3]			[4]		
	A	E		A	E		A	G		A	H
	B	G		B	F		B	E		B	G
	C	F		C	G		C	H		C	F
	D	H		D	H		D	F		D	E

14. Relief		
Dictionary Definition		usage
A. Removal or lightening of something distressing		E. A ceremony follows the relief of a sentry after the morning shift
B. Aid in the form of necessities for the indigent		F. It was a relief to take off the tight shoes.
C. Diversion		G. The only relief I get is by playing cards
D. Release from the performance of duty		H. Disaster relief was offered to the victims.

Answer choices:

[1]			[2]			[3]			[4]		
	A	F		A	F		A	H		A	G
	B	H		B	H		B	F		B	E
	C	E		C	G		C	G		C	H
	D	G		D	E		D	E		D	F

15. Purge	
A. Remove a stigma from the name of	E. The opposition was purged after the coup.
B. Make clean by removing whatever is superfluous, foreign	F. The committee heard his attempt to purge himself of a charge of heresy.
C. Get rid of	G. Drugs that purge the bowels are often bad for the brain
D. To cause evacuation of	H. It is recommended to purge water by distillation

Answer choices:

[1]	A	E	[2]	A	F	[3]	A	H	[4]	A	F
	B	G		B	E		B	F		B	H
	C	F		C	H		C	G		C	E
	D	H		D	G		D	E		D	G

DIRECTIONS for Questions 16 to 20: In each of the following sentences the main statement is followed by four sentences each. Select the pair of sentences that relate logically with the given statement.

16.   Either Sita is sick or she is careless.
        A. Sita is not sic k   B. Sita is not careless.   C. Sita is sick   D. Sita is careless.
        [1] AB   [2] AD   [3] BA   [4] DA

17.   Ram gets a swollen nose whenever he eats hamburgers.
        A. Ram gets a swollen nose.   B. Ram does not eat hamburgers
        C. Ram does not get a swollen nose   D. Ram eats hamburgers.
        [1] AB   [2] DC   [3] AC   [4] BC

18.   Either the employees have no confidence in the management or they are hostile by nature.
        A. They are hostile by nature   B. They are not hostile by nature.
        C. They have confidence in the management
        D. They have no confidence in the management.
        [1] BA   [2] DC   [3] AC   [4] BC

19.   Whenever Ram reads late into the night, his father beats him up.
        A. His father does not beat Ram.   B. Ram reads late into the night.
        C. Ram reads early in the morning.   D. Ram's father beats him in the morning.
        [1] CD   [2] BD   [3] AB   [4] None of the above.

20.   All irresponsible parents shout if their children do not cavort.
        A. All irresponsible parents do not shout.   B. Children cavort
        C. Children do not cavort.   D. All irresponsible parents shout.
        [1] AB   [2] BA   [3] CA   [4] All of the above.

DIRECTIONS for Question 21 to 25: In each of the following sentences, parts of the sentence are left blank. Beneath each sentence, four different ways of completing the sentence are indicated. Choose the best alternative from among the four.

21.   But _____ are now regularly written to describe well-established practices, organisations and institutions, not all of which seem to be _____ away.
        [1] reports, withering   [2] stories, trading
        [3] books, dying [4] obituaries, fading

22.   The Darwin who _____ is most remarkable for the way in which he _____the attributes of the world class thinker and head of the household.
        [1] comes, figure s   [2] arises, adds
        [3] emerges, combines   [4] appeared, combines

23.   Since her face was free of _____ there was no way to _____ if she appreciated what had happened.
        [1] make-up, realise   [2] expression, ascertain
        [3] emotion, diagnose   [4] scars, understand

24.   In this context, the _____ of the British labour movement is particularly _____ .
        [1] affair, weird   [2] activity, moving   [3] experience, significant
        [4] atmosphere, gloomy

25.   Indian intellectuals may boast, if they are so inclined, of being _____ to the most elitist among the intellectual _____ of the world.
        [1] subordinate, traditions [2] heirs, cliques   [3] ancestors, societies
        [4] heir, traditions

DIRECTIONS for Questions 26 to 30: Arrange sentences A, B, C, D between sentences 1 and 6 to form a logical sequence of six sentences.

26.   1. Buddhism is a way to salvation.
        A. But Buddhism is more severely analytical.
        B. In the Christian tradition there is also a concern for the fate of human society conceived as a whole, rather than merely as a sum or network of individuals.
        C. Salvation is a property, or achievement of individuals.
        D. Not only does it dissolve society into individuals, the individual in turn is dissolved into component parts and instant s, a steam of events.
        6. In modern terminology, Buddhist doctrine is reductionist.
        [1] ABCD   [2] CBAD   [3] BDAC   [4] ABCD

27.   1. The problem of improving Indian agriculture is both a sociological and an administrative one.
        A. It also appears that the re is a direct relationship between the size of a state and development.
        B. The issues of Indian development, and the problems of India's agricultural sector, will remain with us long into the next century.
        C. Without improving Indian agriculture, no liberalisation and delicensing will be able to help India.
        D. At the end of the day, there has to be a ferment and movement of life and action in the vast segment of rural India.
        6. When it starts marching, India will fly.
        [1] DABC   [2] CDBA   [3] ACDB   [4] ABCD

28.   1. Good literary magazines have always been good because of their editors.
        A. Furthermore, to edit by committee, as it were, would prevent any magazine from finding its own identity.
        B. The more quirky and idiosyncratic they have been, the better the magazine is, at least as a general rule.
        C. But the number of editors one can have for a magazine should also be determined by the number of contributions to it.
        D. To have four editors for an issue that contains only seven contributions is a bit silly to start with.
        6. However, in spite of this anomaly, the magazine does acquire merit in its attempt to give a comprehensive view of the Indian literary scene as it is today.
        [1] ABCD   [2] BCDA   [3] ABDC   [4] CBAD

29.   1. It's the success story of the Indian expatriate in the US which today hogs much of the media coverage in India.
        A. East and West, the twain have met quite comfortably in their person, thank you.
        B. Especially in its more recent romancing-the-NRI phase.
        C. Seldom does the price of getting there - more like not getting there - or what's going on behind those sunny smiles get so much media hype.
        D. Well groomed, with their perfect Colgate smiles, and hair in place, they appear the picture of confidence which comes from having arrived.
        6. The festival of feature films and documentaries made by Americans of Indian descent being screened this fortnight goes a long way in filling those gaps.
        [1] ACBD   [2] DABC   [3] BDAC   [4] ABCD

30.   1. The wind had savage allies.
        A. If it had not been for my closely fitted helmet, the explosions might have shattered my eardrums.
        B. The first clap of thunder came as a deafening explosion that literally shook my teeth.
        C. I didn't hear the thunder; I actually felt it -- an almost unbearable physical experience.
        D. I saw lightning all around me in every shape imaginable.
        6. When very close, it began raining so torrentially that I thought I would drown in mid-air.
        [1] BCAD   [2] CADB   [3] CBDA   [4] ACDB

DIRECTIONS for Questions 31 to 35: Choose the grammatically correct sentence from among the four options given.

31.   [1] I am not one of those who believe everything they hear.
        [2] I am not one of these who believes everything I hear.
        [3] I am not one of those who believes everything he hears.
        [4] I am not one of those who believes in everything one hears.

32.   [1] Cannot one do what one likes with one's own?
        [2] Cannot one do that one likes to do with his own?
        [3] Cannot one do that one likes with his own?
        [4] Cannot one do what he likes with his own?

33.   [1] There's Mr. Som, whom they say is the best singer in the country.
        [2] There's Mr. Som, who they say is the best singer in the country.
        [3] There is Mr. Som, whom they say is the best singer in the country.
        [4] There is Mr. Som who, they say is the best s inger in the country.

34.   [1] Each of the students has done well.   [2] Each of the student has done well.
        [3] Each of the students have done well.   [4] Each of the student have done well.

35.   [1] Today we love, what tomorrow we hate; today we seek, what tomorrow we shun, today we desire, what tomorrow we fear.
        [2] Today, we love what tomorrow we hate, today, we seek what tomorrow we shun, today, we desire what tomorrow we fear.
        [3] Today we love what tomorrow we hate, today we seek what tomorrow we shun, today we desire what tomorrow we fear.
        [4] Today we love what tomorrow we hate; today we seek what tomorrow we shun; today we desire what tomorrow we fear.

DIRECTIONS for Questions 36 to 40: In each of the following questions a part of a paragraph or sentence has been underlined. From the choices given, you are required to choose the one which would best replace the underlined part.

36.   Victory is everything in the Indian universe and Tendulkar will be expected to translate his genius to that effect. To contemplate any other option is to contemplate the risk of failure.
        [1] To contemplate any other action is to contemplate the risk of failure.
        [2] Failure is not an action that can be contemplated.
        [3] Any other action has the potential of failure.
        [4] Failure is not an option.

37.   In Martin Amis' new novel, the narrator is trapped -- and hurtling towards a terrible secret. Its resolution, and the dreadful revelations it brings, ally to give an excruciating vision of guilt.
        [1] ally to give an excruciating vision of guilt.
        [2] to us give a vivid picture of guilt.
        [3] is a painful picture of a guilt-ridden world.
        [4] does not really solve all the questions in the narrator's mind.

38.   How many times have I asked myself: when is the world going to start to make sense? There is a monster out there, and it is rushing towards me over the uneven ground of consciousness.
        [1] There is a monster out there   [2] It is as if the world is on my shoulders
        [3] The answer is out there somewhere   [4] There is a sea of sensibility in me.

39.   Contemplating whether to exist with an insatiable romantic temperament, he was the author and largely the subject of a number of memorable novels.
        [1] Contemplating whether to exist   [2] Combining realistic detail
        [3] Miscegenating a brilliant mind   [4] Aware that he had been born

40.   In a penetrating study, CBS-TV focuses on those people without hope, whose bodies are cared for by welfare aid, but whose spirit is often neglected by a disinterested society.

[1] whose bodies are cared for by welfare aid   [2] who do not have enough to eat

[3] whose hopelessness may be alleviated   [4] who may be physically satiated

SECTION – II

Number of Questions: 50

DIRECTIONS for Questions 41 to 90: Read the passages and answer the questions based on them.

PASSAGE – I

I want to stress this personal helplessness we are all stricken with in the face of a system that has passed beyond our knowledge and control. To bring it nearer home, I propose that we switch off from the big things like empires and their wars to little familiar things. Take pins for example! I do not know why it is that I so seldom use a pin when my wife cannot get on without boxes of them at hand; but it is so, and I will therefore take pins as being for some reason specially important to women.

There was a time when pinmakers could buy the material, shape it, make the head and the point, ornament it, and take it to market or to your door and sell it to you. They had to know three trades: buying, making, and selling; and the making required skill in several operations. They not only knew how the thing was done from beginning to end, but could do it. But they could not afford to sell you a box of pins for a farthing. Pins cost so much that a woman's dress allowance was calling pin money.

By the end of the eighteenth century Adam Smith boasted that it took eighteen men to make a pin, each man doing a little bit of the job and passing the pin on to the next, and none of them being able to make a whole pin or to buy the materials or to sell it when it was made. The most you could say for them was that at least they had some idea of how it was made, though they could not make it. Now as this meant that they were clearly less capable and knowledgeable men than the old pinmakers, you may ask why Adam Smith boasted of it as a triumph of civilisation when its effect was so clearly a degrading effect. The reason was that by setting each man to do just one little bit of the work and nothing but that, over and over again, he became very quick at it. The men, it is said, could turn out nearly five thousand pins a day each; and thus pins became plentiful and cheap. The country was supposed to be richer because it had more pins, though it had turned capable men into mere machines doing their work without intelligence and being fed by the spare food of the capitalist as an engine is fed with coals and oil. That was why the poet Goldsmith, who was a farsighted economist as well as a poet, complained that 'wealth accumulates, and men decay'.

Nowadays Adam Smith's eighteen men are as extinct as the diplodocus. The eighteen flesh-and-blood machines are replaced by machines of steel, which spout out pins by the hundred million. Even sticking them into pink papers is done by machinery. The result is that with the exception of a few people who design the machines, nobody knows how to make a pin or how a pin is made: that is to say, the modern worker in pin manufacture need not be one-tenth so intelligent and skilful and accomplished as the old pinmaker; and the only compensation we have for this deterioration is that pins are so cheap that a single pin has no expressible value at all. Even with a big profit stuck on to the cost-price you can buy dozens for a farthing; and pins are so recklessly thrown away and wasted that verses have to be written to persuade children (without success) that it is a sin to steal a pin.

Many serious thinkers, like John Ruskin and William Morris, have been greatly troubled by this, just as Goldsmith was, and have asked whether we really believe that it is an advance in wealth to lose our skill and degrade our workers for the sake of being able to waste pins by the ton. We shall see later on, when we come to consider the Distribution of Leisure, that the cure for this is not to go back to the old ways; for if the saving of time by modern machinery was equally divided among us, it would set us all free for higher work than pinmaking or the like. But in the meantime the fact remains that pins are now made by men and women who cannot make anything by themselves, and could not arrange between themselves to make anything even in little bits. They are ignorant and helpless, and cannot lift their finger to begin their day's work until it has all been arranged for them by their employers who themselves do not understand the machines that buy, and simply pay other people to set them going by carrying out the machine maker's directions.

The same is true of clothes. Formerly the whole work of making clothes, from the shearing of the sheep to the turning out of the finished and washed garment ready to put on, had to be done in the country by the men and women of the household, especially the women; so that to this day an unmarried woman is called a spinster. Nowadays nothing is left of all this but the sheep shearing; and even that, like the milking of cows, is being done by machinery, as the sewing is. Give a woman a sheep today and ask her to produce a woollen dress for you; and not only will she be quite unable to do it, but you are as likely as not to find that she is not even aware of any connection between sheep and clothes. When she gets her clothes, which she does by buying them at a shop, she knows that there is a difference between wool and cotton and silk, between flannel and merino, perhaps even

between stockinet and together wefts; but as to how they are made, or what they are made of, or how they came to be in the shop ready for her to buy, she knows hardly anything. And the shop assistant from whom she buys is no wiser. The people engaged in the making of them know even less; for many of them are too poor to have much choice of materials when they buy their own clothes.

Thus the capitalist system has produced an almost universal ignorance of how things are made and done, whilst at the same time it has caused them to be made and done on a gigantic scale. We have to buy books and encyclopaedias to find out what it is we are doing all day; and as the books are written by people who are not doing it, and who get their information from other books, what they tell us is from twenty to fifty years out of date, and impractical at that. And of course most of us are too tired of our work when we come home to want to read about it; what we need is a cinema to take our minds off it and feed our imagination.

It is a funny place, this word of Capitalism, with its astonishing spread of ignorance and helplessness, boasting all the time of its spread of education and enlightenment. There stand the thousands of property owners and the millions of wage workers; none of them able to make anything, none of them knowing what to do until somebody tells them, none of them having the least notion of how it is that they find people paying them money, and things in the shops to buy with it. And when they travel they are surprised to find that savages and Esquimaux and villagers who have to make everything for themselves are more intelligent and resourceful! The wonder would be if they were anything else. We should die of idiocy through disuse of our mental faculties if we did not fill our heads with romantic nonsense out of illustrated newspapers and novels and plays and films. Such stuff keeps us alive; but it falsifies everything for us so absurdly that it leaves us more or less dangerous lunatics in the real world.

Excuse my going on like this; but as I am a writer of books and plays myself; I know the folly and peril of it better than you do. And when I see that this moment of our utmost ignorance and helplessness, delusion and folly, has been stumbled on by the blind forces of Capitalism as the moment for giving votes to everybody, so that the few wise women are hopelessly overruled by the thousands whose political minds, as far as they can be said to have any political minds at all, have been formed in the cinema, I realise that I had better stop writing plays for a while to discuss political and social realities in this book with those who are intelligent enough to listen to me.

41.   A suitable title to the passage would be…
        [1] You can't hear a pin drop nowadays.
        [2] Capitalism and labour disintegration: pinning the blame.
        [3] The saga of the non-safety pins.
        [4] Reaching the pinnacle of capitalistic success.

42.   Which of the following is true as far as pins are concerned?
        [1] The cost of pins is more nowadays to produce.
        [2] Earlier, workmen made pins with a lot of love and care.
        [3] Pinball machines are the standard pin producing gadgets nowadays.
        [4] It took far longer to make a pin earlier.

43.   Why do you think that the author gives the example of Adam Smith?
        [1] Because he thinks that Adam Smith was a boaster without any facts to back his utterance.
        [2] Because he wants to give us an example of something undesirable that Adam Smith was proud of.
        [3] Because he is proud to be a believer in a tenet of production that even a great man like Adam Smith boasted about.
        [4] Because he feels that Adam Smith was right when he said that it took eighteen men to make a pin.

44.   It may be inferred from the passage that the author…
        [1] is a supporter of craftsmanship over bulk mechanised production.
        [2] is a supporter of assembly line production over socialistic systems of the same.
        [3] is a defender of the faith in capitalistic production.
        [4] None of the above.

45.   The reason that children have to be taught that stealing a pin is wrong is that:
        [1] they have an amazing proclivity to steal them right from childhood.
        [2] pins are so common and cheap that taking one would not even be considered stealing by them.
        [3] stealing a pin would lead to stealing bigger things in the future.
        [4] stealing an insignificant thing like a pin smacks of kleptomania.

46.   Which of the following is not against the modern capitalistic system of mass production?

[1] John Ruskin   [2] Goldsmith   [3] Adam Smith   [4] William Morris

47.   Which of the following can be a suitable first line to introduce the hypothetical next paragraph at the
       end of the passage?
       [1] The distribution of leisure is not a term that can be explained in a few words.
       [2] If people wear clothes they hardly seem to think about the method of production.
       [3] Machines are the gods of our age and there seems to be no atheists.
       [4] Cannot be determined from the passage.

48.   When the author says that a woman now is not likely to know about any connection between sheep and
       clothes, he is probably being:
       [1] vindictive   [2] chauvinistic   [3] satirical   [4] demeaning

49.   Goldsmith's dictum, "wealth accumulates, and men decay," in the context of the passage, probably
       means:
       [1] the more wealthy people get, they become more and more corrupt.
       [2] the more rich people get, they forget the nuances of individual ability.
       [3] people may have a lot of money, but they have to die and decay someday.
       [4] the more a company gets wealthy the less they take care of people.

PASSAGE – II

Now let us turn back to inquire whether sending our capital abroad, and consenting to be taxed to pay emigration fares to get rid of the women and men who are left without employment in consequence, is all that Capitalism can do when our employers, who act for our capitalists in industrial affairs, and are more or less capitalists themselves in the earlier stages of capitalistic development, find that they can sell no more of their goods at a profit, or indeed at all, in their own country.

Clearly they cannot send abroad the capital they have already invested, because it has all been eaten up by the workers, leaving in its place factories and railways and mines and the like; and these cannot be packed into a ship's hold and sent to Africa. It is only the freshly saved capital that can be sent out of the country. This, as we have seen, does go abroad in heaps. But the British employer who is working with capital in the shape of works fixed to British land held by him on long lease, must; when once he has sold all the goods at home that his British customers can afford to buy, either shut up his works until the customers have worn out their stock of what they have bought, which would bankrupt him (for the landlord will not wait), or else sell his superfluous goods somewhere else: that is, he must send them abroad. Now it is not easy to send them to civilised countries, because they practise Protection, which means that they impose heavy taxes (customs duties) on foreign goods. Uncivilised countries, without Protection, and inhabited by natives to whom gaudy calicoes and cheap showy brassware are dazzling and delightful novelists, are the best places to make for at first.

But trade requires a settled government to put down the habit of plundering strangers. This is not a habit of simple tribes, who are often friendly and honest. It is what civilised men do where there is no law to restrain them. Until quite recent times it was extremely dangerous to be wrecked on our own coasts, as wrecking, which meant plundering wretched ships and refraining from any officious efforts to save the lives of their crews, was a well-established business in many places on our shores. The Chinese still remember some astonishing outbursts of looting perpetrated by English ladies of high position, at moments when law was suspended and priceless works of art were to be had for the grabbing. When trading with aborigines begins with the visit of a single ship, the cannons and cutlasses it carries may be quite sufficient to overawe the natives if they are troublesome. The real difficulty begins when so many ships come, that a little trading station of white men grows up and attracts the white ne'er-do-wells and violent roughs who are always being squeezed out of civilisation by the pressure of law and order. It is these riffraff who turn the place into a sort of hell in which sooner or later missionaries are murdered and traders plundered. Their home governments are appealed to put a stop to this. A gunboat is sent out and inquiry made. The report after the inquiry is that there is nothing to be done but to set up a civilised government, with a post office, police, troops, and a navy in the offing. In short, the place is added to some civilised Empire. And the civilised taxpayer pays the bill without getting a farthing of the profits.

Of course the business does not stop there. The riffraff who have created the emergency move out just beyond the boundary of the annexed territory, and are as great a nuisance as ever to the traders when they have exhausted the purchasing power of the included natives and push on after fresh customers. Again they call on their home government to civilise a further area; and so bit by bit the civilised Empire grows at the expense of the home taxpayers, without any intention or approval on their part, until at last, though all their real patriotism is centred on their own people and confined to their own country, their own rulers, and their own religious faith,

they find that the centre of their beloved realm has shifted to the other hemisphere. That is how we in the British Islands have found our centre moved from London to the Suez Canal, and are now in the position that out of every hundred of our fellow-subjects, in whose defence we are expected to shed the last drop of our blood, only eleven are whites or even Christians. In our bewilderment some of us declare that the Empire is a burden and a blunder, whilst others glory in it as a triumph. You and I need not argue with them just now, our point for the moment being that, whether blunder or glory, the British Empire was quite unintentional. What should have been undertaken only as a most carefully considered political development has been a series of commercial adventures thrust on us by capitalists forced by their own system to cater for foreign customers before their own country's needs were one-tenth satisfied.

50. It may be inferred that the passage was written:
    [1] when Britain was still a colonial power.
    [2] when the author was in a bad mood.
    [3] when the author was working in the foreign service of Britain.
    [4] when the author's country was overrun by the British.

51. According to the author, the main reason why capitalists go abroad to sell their goods is:
    [1] that they want to civilise the underdeveloped countries of the world by giving them their goods.
    [2] that they have to have new places to sell their surplus goods
    [3] that they actually want to rule new lands and selling goods is an excuse.
    [4] None of the above.

52. Which of the following does not come under the aegis of capital already invested?
    [1] Construction of factories   [2] Development of a mine.
    [3] Trade of finished products   [4] All of the above

53. Why do the capitalistic traders prefer the uncivilised countries to the civilised ones?
    [1] Because they find it easier to rule there.
    [2] Because civilised countries would make them pay protection duties.
    [3] Because civilised countries would make their own goods.
    [4] Because uncivilised countries like the cheap and gaudy goods of bad quality all capitalists produce.

54. According to the author, the habit of plundering strangers:
    [1] is usually not found in simple tribes but civilised people.
    [2] is usually found in the barbaric tribes of the uncivilised nations.
    [3] is a habit limited only to English ladies of high position.
    [4] is a usual habit with all white skinned people.

55. Which of the following may be called the main complaint of the author?
    [1] The race of people he belongs to are looters and plunderers.
    [2] The capitalists are taking over the entire world.
    [3] It is a way of life for English ladies to loot and plunder.
    [4] The English taxpayer has to pay for the upkeep of territories he did not want.

56. The word 'officious', in the context of the passage, means:
    [1] self-important   [2] official   [3] rude   [4] oafish

PASSAGE – III

That the doctrines connected with the name of Darwin are altering our principles has become a sort of commonplace thing to say. And moral principles are said to share in this general transformation. Now, to pass by other subjects I do not see why Darwinism need change our ultimate moral ideas. It will not modify our conception of the end, either for the community or the individual, unless we have been holding views which long before Darwin were out of date. As to the principles of ethics I perceive, in short, no sign of revolution. Darwinism has indeed helped many to truer conception of the end, but I cannot admit that it has either originated or modified that conception.

And yet in ethics Darwinism after all many perhaps be revolutionary. It may lead not to another view about the end, but to a different way of regarding the relative importance of the means. For in the ordinary moral creed those means seem estimated on no rational principle. Our creed appears rather to be an irrational mixture of jarring elements. We have the moral code of Christianity, accepted in part; rejected practically by all save a few fanatics. But we do not realise who in its very principle the Christian ideals is false. And when we reject this code for another and in part a sounder morality, we are in the same condition of blindness and of practical confusion. It is here that Darwinism, with all the tendencies we may group under that name, seems destined to intervene. It will make itself felt, I believe, more and more effectual. It may force on us in some points a correction of our moral views, and a return to a non-Christian and perhaps a Hellenic ideal. I propose to illustrate here these general statements by some remarks on Punishment.

Darwinism, I have said, has not even modified our ideas of the Chief Good. We may take that as the welfare of the community realised in its members. There is, of course, a question as to the meaning to be given to welfare. We may identify that with mere pleasure, or may rather view both as inseparable aspects of perfection and individuality. And the extent and nature of the community would once more be a subject for some discussion. But we are forced to enter on these controversies here. We may leave welfare undefined, and for present purpose need not distinguish the community from the state. The welfare of this whole exists, of course, nowhere outside the individuals, and the individuals again have rights and duties only as members in the whole. This is the revived Hellenism – or we may call it the organic view of thing -- urged by German Idealism early in the present century.

57.   According to the author, the doctrines of Darwin:
        [1] have changed our physical and moral principles.
        [2] have to be re-evaluated to correct the faults endemic in them
        [3] do not change our moral ideas
        [4] are actually new versions of old moral rules

58.   What is most probably the author's opinion of the existing morla principles of the people?
        [1] He thinks they have to be revamped in the light of Darwinism.
        [2] He thinks that they are okay as they are and do not need any major change.
        [3] He thinks that it may be a good idea to have a modicum of the immoral Darwinism in us.
        [4] Cannot be determined from the passage.

59.   According to the author, the moral code of Christianity:
        [1] is not followed by most people.
        [2] is in danger due to opposition to Darwinism.
        [3] is followed by a vast majority of people.
        [4] is totally ignored by all true Christians.

60.   It is implied in the passage that:
        [1] a Hellenic ideal is not a proper substitute of the Christian ideal.
        [2] what mankind needs is a Hellenic ideal rather than a Christian one.
        [3] Darwinism is more Christian than Hellenic.
        [4] fanatics do not understand what Darwinism really is.

61.   What, according to the passage, is the Chief Good?
        [1] Being good and kind to all fellow human beings.
        [2] The greatest good of the greatest number.
        [3] The welfare of the community realised in its members.
        [4] Cannot be determined from the passage.

PASSAGE – IV

Governments looking for easy popularity have frequently been tempted into announcing give-aways of all sorts; free electricity, virtually free water, subsidised food, cloth at half price, and so on. The subsidy culture has gone to extremes: cooking gas (used mostly by the top 10% of income-earners) has been sold at barely half its cost. The wealthiest people in the country have had access for years to subsidised sugar. The richest farmers in the country get subsidised fertiliser. University education, typically accessed by the wealthier sections, is

charged at a fraction of cost. Postal services are subsidised, and so are railway passengers. Bus fares cannot be raised to economical levels because there will be violent protests, so bus travel is subsidised too. In the past, price control on a variety of items, from steel to cement, meant that industrial consumers of these items got them at less than cost while the losses of the public sector companies that produced them were borne by the taxpayer! One study, done a few years ago, came to the conclusion that subsidies in the Indian economy total as much as 14.5% of gross domestic product. At today's level, that would work out to about Rs. 150,000 crore.

And who pays the bill? The theory – and the political fiction on the basis of which it is sold to unsuspecting voters – is that subsidies go to the poor, and are paid for by the rich. The fact is that most subsidies go to the "rich" (defined in the Indian context as those who are above the poverty line), and much of the tab goes indirectly to the poor. Because the hefty subsidy bill results in fiscal deficits, which in turn push up rates of inflation – which, as everyone knows, hits the poor the hardest of all. Indeed, that is why taxmen call inflation the most regressive form of taxation.

The entire subsidy system is built on the thesis that people cannot help themselves, therefore governments must do so. That people cannot afford to pay for a variety of goods and services, and therefore the government must step in. This thesis has been applied not just in the poor countries but in the rich ones as well; hence the birth of the welfare state in the West, and an almost Utopian social security system: free medical care, food aid, old age security, et al. But with the passage of time, most of the wealthy nations have discovered that their economies cannot sustain this social safety net, that it in fact reduces the desire among people to pay their own way, and takes away some of the incentive to work. In short, the bill was unaffordable, and their societies were simply not willing to pay. To the regret of many, but because the laws of economics are harsh, most Western societies have been busy pruning the welfare bill.

In India, the lessons of this experience -- over several decades, and in many countries -- do not seem to have been learnt. Or, they are simply ignored in the pursuit of immediate votes. People who are promised cheap food or clothing do not in most cases look beyond the gift horses -- to the question of who picks up the tab. The uproar over higher petrol, diesel and cooking gas prices ignored this basic question: if the user of cooking gas does not want to pay for its cost, who should pay? Diesel in the country is subsidised, and if the trucker or owner of a diesel generator does not want to pay for its full cost, who does he or she think should pay the balance of the cost? It is a simple question, nevertheless it remains unasked.

The government has shown some courage in biting the bullet when it comes to the price of petroleum products. But it has been bitten by a much bigger subsidy bug. It wants to offer food at half its cost to everyone below the poverty line, supposedly estimated at some 380 million people. What will this cost? And, of course, who will pick up the tab? The Andhra Pradesh government has been bankrupted by selling rice at Rs 2 per kg. Should the central government be bankrupted too before facing up to the question of what is affordable and what is not? Already, India is perennially short of power because the subsidy on electricity has bankrupted most electricity boards, and made private investment wary unless it gets all manner of state guarantees. Delhi's subsidised bus fares have bankrupted the Delhi Transport Corp, whose buses have slowly disappeared from the capital's streets. It is easy to be soft and sentimental, by looking at programmes that will be popular. After all, who doesn't like a free lunch? But the evidence is surely mounting that the lunch isn't free at all. Somebody is paying the bill. And if you want to know who, take a look at the country's poor economic performance over the years.

62.   Which of the following may not be subsidised now, according to the passage?
        [1] University education   [2] Postal services   [3] Steel   [4] None of the above

63.   If can be inferred from the passage that the author:
        [1] believes that people can help themselves and do not need the government.
        [2] believes that the theory of helping people with subsidy is destructive.
        [3] believes in democracy and free speech.
        [4] is not a successful politician.

64.   The statement that subsidies are paid for by the rich and go the poor is:
        [1] fiction   [2] fact   [3] fact, according to the author
        [4] fiction, according to the author

65.   Which of the following is not true, in the context of the passage?
        [1] Where subsidies are concerned, the poor ultimately pay the tab.
        [2] Inflation is caused by too much subsidies.
        [3] Experts call subsidies the most regressive form of taxation.
        [4] The dangerous reduction in fiscal deficits is another result of high subsidies.

66.   Why does the author calls the Western social security system Utopian?
       [1] The countries' belief in the efficacy of the system was bound to turn out to be false.
       [2] The system followed by these countries is the best available in the present context.
       [3] Every thing under this system was supposed to be free but people were charging money for them.
       [4] The theory or system followed by these countries was devised by Dr Utopia.

67.   What, according to the author, is a saving grace of the government?
       [1] It has realised that it has to raise the price of petroleum products.
       [2] It has avoided been bitten by a bigger subsidy bug.
       [3] Both a) and b)
       [4] Neither a) nor b).

68.   A suitable title to the passage would be:
       [1] There's no such thing as a free lunch.   [2] The Indian Economic overview.
       [3] The government and its follies.   [4] It takes two to tango.

69.   Which of the following is not a victim of extreme subsidies?
       [1] The poor   [2] The Delhi Transport Corporation
       [3] The Andhra Pradesh government   [4] All of the above.

PASSAGE – V

The membrane-bound nucleus is the most prominent feature of the eukaryotic cell. Schleiden and Schwann, when setting forth the cell doctrine in the 1830's, considered that it had a central role in growth and development. Their belief has been fully supported even though they had only vague notions as to what that role might be, and how the role was to be expressed in some cellular action. The membraneless nuclear area of the prokaryotic cell, with its tangle of fine threads, is now known to play a similar role.

Some cells, like the sieve tubes of vascular plants and the red blood cells of mammals, do not possess nuclei during the greater part of their existence, although they had nuclei when in a less differentiated state. Such cells can no longer divide and their life span is limited. Other cells are regularly multinucleate. Some, like the cells of striated muscles or the latex vessels of higher plants, become so through cell fusion. Some, like the unicellular protozoan Paramecium, are normally binucleate, one of the nuclei serving as a source of hereditary information for the next generation, the other governing the day-to-day metabolic activities of the cell. Still other organisms, such as some fungi, are multinucleate because cross walls, dividing the mycelium into specific cells, are absent or irregularly present. The uninucleate situation, however, is typical for the vast majority of cells, and it would appear that this is the most efficient and most economical manner of partitioning living substance into manageable units. This point of view is given credence not only by the prevalence of uninucleate cells, but because for each kind of cell there is a ratio maintained between the volume of the nucleus and that of the cytoplasm. If we think of the nucleus as the control centre of the cell, this would suggest that for a given kind of cell performing a given kind of work, one nucleus can "take care of" a specific volume of cytoplasm and keep it in functioning order. In terms of materials and energy, this must mean providing the kind of information needed to keep flow of materials and energy moving at the correct rate and in the proper channels. With the multitude of enzymes in the cell, materials and energy can of course be channelled in a multitude of ways; it is the function of some informational molecules to make channels of use more preferred than others at any given time. How this regulatory control is exercised is not entirely clear.

The nucleus is generally a rounded body. In plant cells, however, where the centre of the cell is often occupied by a large vacuole, the nucleus may be pushed against the cell wall, causing it to assume a lens shape. In some white blood cells, such as polymorphonucleated leukocytes, and in cells of the spinning gland of some insects and spiders, the nucleus is very much lobed. The reason for this is not clear, but it may relate to the fact that for a given volume of nucleus, a lobate form provides a much greater surface area nuclear-cytoplasmic exchanges, possibly affecting both the rate and the amount of metabolic reactions. The nucleus, whatever its shape, is segregated from the cytoplasm by a double membrane, the nuclear envelope, with the two membranes separated from each other by a perinuclear space of varying width. The envelope is absent only during the time of cell division, and then just for a brief period. The outer membrane is often continuous with the membranes of the endoplasmic reticulum, a possible retention of an earlier relationship, since the envelope, at least in part, is formed at the end of cell division by coalescing fragments of the endoplasmic reticulum. The cytoplasm side of the nucleus is frequently coated with ribosomes, another fact that stresses the similarity and relation of the nuclear envelope to the endoplasmic reticulum. The inner membrane seems to possess a crystalline layer where it abuts the nucleoplasm, but its function remains to be determined.

Everything that passes between the cytoplasm and the nucleus in the eukaryotic cell must transverse the nuclear envelope. This includes some fairly large molecules as well as bodies such as ribosomes, which measure about 25 mm in diameter. Some passageway is, therefore, obviously necessary since there is no indication of dissolution of the nuclear envelope in order to make such movement possible. The nuclear pores appear to be reasonable candidates for such passageways. In plant cells these are irregularly and rather sparsely distributed over the surface of the nucleus, but in the amphibian oocyte, for example, the pores are numerous, regularly arranged, and octagonal and are formed by the fusion of the outer and inner membrane.

70. According to the first paragraph, the contention of Schleiden and Schwann that the nucleus is the most important part of the cell has:
[1] been proved to be true.
[2] has been true so far but false in the case of the prokaryotic cell
[3] is only partially true.
[4] has been proved to be completely false.

71. Which of the following kinds of cells do not have nuclei?
[1] Sieve Tubes   [2] Red bloods cells of mammals.
[3] Prokaryotic cells   [4] None of the above.

72. What is definitely a function of the nuclei of the normally binucleate cell?
[1] To arrange for the growth and nourishment if the cell.
[2] To hold hereditary information for the next generation.
[3] To make up the basic physical structure of the organism.
[4] To fight the various foreign diseases attacking the body.

73. It may be inferred from the passage that the vast majority of cells are:
[1] Multinucleate   [2] Binucleate   [3] Uninucleate   [4] Anucleate.

74. Why, according to the passage, are fungi multinucleate?
[1] Because they need more food to survive.
[2] Because they frequently lack walls dividing the mycelium.
[3] Because the mycelium is area-wise much bigger that other cells.
[4] Cannot be determined from the passage.

75. Why, according to the passage, is the polymorphonucleated leukocyte probably lobed?
[1] Because it is quite convoluted in its functions.
[2] Because it is a red blood cell which is the most important cell in the body.
[3] Because it provides a greater area for metabolic reaction.
[4] Because it previous greater strength to the spider web due to greater area.

76. The function of the crystalline layer of the inner membrane of the nucleus is:
[1] generation of nourishment of the cell.
[2] holding together the disparate structure of the endoplasmic reticulum.
[3] helping in transversal of the nuclear envelope.
[4] cannot be determined from the passage.

PASSAGE – VI

The second plan to have to examine is that of giving to each person what she deserves. Many people, especially those who are comfortably off, think that this is what happens at present: that the industrious and sober and thrifty are never in want, and that poverty is due to idleness, improvidence, drink, betting, dishonesty, and bad character generally. They can point to the fact that a labourer whose character is bad finds it more difficult to get employment than one whose character is good; that a farmer or country gentlemen who gambles and bets heavily, and mortgages his land to live wastefully and extravagantly; is soon reduced to poverty; and that a man of business who is lazy and does not attend to it becomes bankrupt. But this proves nothing that you cannot eat your cake and have it too: it does not prove that your share of the cake was a fair one. It shows that

certain vices and weaknesses make us poor; but it forgets that certain other vices make us rich. People who are hard, grasping, selfish, cruel, and always ready to take advantage of their neighbours, become very rich if they are clever enough not to overreach themselves. On the other hand, people who are generous, public-spirited, friendly, and not always thinking of the main chance, stay poor when they are born poor unless they have extraordinary talents. Also as things are today, some are born poor and others are born with silver spoons in their mouths: that is to say, they are divided into rich and poor before they are old enough to have any character at all. The notion that our present system distributes wealth according to merit, even roughly, may be dismissed at once as ridiculous. Everyone can see that it generally has the contrary effect; it makes a few idle people very rich, and a great many hardworking people very poor.

On this, Intelligent Lady, your first thought may be that if wealth is not distributed according to merit, it ought to be; and that we should at once set to work to alter our laws so that in future the good people shall be rich in proportion to their goodness and the bad people poor in proportion to their badness. There are several objections to this; but the very first one settles the question for good. It is, that the proposal is impossible. How are you going to measure anyone's merit in money? Choose any pair of human beings you like, male or female, and see whether you can decide how much each of them should have on her or his merits. If you live in the country, take the village blacksmith and the village clergyman, or the village washerwoman and the village schoolmistress, to begin with. At present the clergyman often gets less pay than the blacksmith: it is only in some villages that he gets more. But never mind what they get at present: you are trying whether you can set up a new order of things in which each will get what he deserves. You need not fix a sum of money for them: all you have to do is to settle the proportion between them. Is the blacksmith to have as much as the clergyman? Or twice as much as the clergyman? Or half as much as the clergyman? Or how much more or less? It is no use saying that one ought to have more the other less: you must be prepared to say exactly how much more or less in calculable proportion.

Well, think it out. The clergyman has had a college education; but that is not any merit on his part: he owns it to his father; so you cannot allow him anything for that. But through it he is able to read the New Testament in Greek; so that he can do something the blacksmith cannot do. On the other hand, the blacksmith can make a horse-shoe, which the parson cannot. How many verses of the Greek Testament are worth one horse-shoe? You have only to ask the silly question to see that nobody can answer it.

Since measuring their merits is no use, why not try to measure their faults? Suppose the blacksmith swears a good deal, and gets drunk occasionally! Everybody in the village knows this; but the parson has to keep his faults to himself. His wife knows them; but she will not tell you what they are if she knows that you intend to cut off some of his pay for them. You know that as he is only a mortal human being he must have some faults; but you cannot find them out. However, suppose he has some faults that you can find out! Suppose he has what you call an unfortunate manner; that he is a hypocrite; that he is a snob; that he cares more for sport and fashionable society than for religion! Does that make him as bad as the blacksmith, or twice as bad, or twice and a quarter as bad, or only half as bad? In other words, if the blacksmith is to have a shilling, is the parson to have sixpence, or five pence and one-third, or two shillings? Clearly these are fools' questions: the moment they bring us down from moral generalities to business particulars it becomes plain to every sensible person that no relation can be established between human qualities, good or bad, and sums of money, large or small. It may seem scandalous that a prize-fighter so hard at Wembley that he fell down and could not rise within ten seconds, received the same sum that was paid to the Archbishop of Canterbury for acting as Primate of the Church of England for nine months; but none of these who cry out against the scandal can express any better in money the difference between the two. Not one of the persons who think that the prize-fighter should get less than the archbishop can say how much less. What the prize-fighter got for his six or seven minutes' boxing would pay a judge's salary for two years; and we are all agreed that nothing could be more ridiculous, and that any system of distributing wealth which leads to such absurdities must be wrong. But to suppose that it could be changed by any possible calculation that an ounce of archbishop or three ounces of judge is worth a pound of prize-fighter would be sillier still. You can find out how many candles are worth a pound of butter in the market on any particular day; but when you try to estimate the worth of human souls, the utmost you can say is that they are all of equal value before the throne of God. And that will not help you in the least to settle how much money they should have. You must simply give it up, and admit that distributing money according to merit is beyond mortal measurement and judgement.

77.   Which of the following is not a vice attributed to the poor by the rich?
        [1] Idleness   [2] Drug addiction   [3] Gambling   [4] Alcoholism

78.   According tot he passage, which kind of people are not mentioned as likely to get rich quickly?
        [1] Selfis h people   [2] Grasping people
        [3] Hard working people   [4] Ambitious people

79.   What, according to the author, do the generous and public-spirited people need to become rich?
        [1] A criminal mind   [2] To be born with silver spoons
        [3] Extraordinary talents   [4] Strength of character

80.   Which of the following about the author's thinking may be inferred from the passage?
        [1] The poor should work harder to become rich.
        [2] The present system of distribution of wealth is based in favour of the rich.
        [3] The honest men should resort to trickery if they want to become rich.
        [4] The present system of government should give way to a more progressive one.

81.   What, according to the author, is the main problem in distributing wealth according to the goodness or
        badness of human beings?
        [1] Because the bad people will as always, cheat the good people of their fair share of the money.
        [2] Because there are too many people in the world and it will take a long time to categorise them into
        good or bad.
        [3] Because there are no standards by which to judge good or bad in relation to money.
        [4] None of these

82.   This passage most probably a part of:
        [1] A newspaper article.   [2] An anthropological document.
        [3] A letter to someone.   [4] An ecclesiastical liturgy.

83.   The author gives the example of the Archbishop of Canterbury and the prize-fighter to:
        [1] prove that there cannot be any division of wealth based on moral standards.
        [2] prove that in this day and age, might always scores over religion and love.
        [3] prove the existence of a non-discriminating god.
        [4] prove that a pound of butter in worth more than any amount of candles any day.

84.   The word 'improvidence,' in the context of the passage, means:
        [1] extravagance [2] lasciviousness   [3] corruption   [4] indelicacy

                            PASSAGE – VII

        This is an issue-less election. There is no central personality of whom voters have to express approval
or dislike; no central matter of concern that makes this a one-issue referendum like so many elections in the past;
no central party around which everything else revolves -- the Congress has been displaced from its customary
pole position, and no one else has been able to take its place. Indeed, given that all-seeing video cameras of the
Election Commission, and the detailed pictures they are putting together on campaign expenditure, there isn't
even much electioneering: no slogans on the walls, no loudspeakers blaring forth at all hours of the day and
night, no cavalcades of cars heralding the arrival of a candidate at the local bazaar. Forget it being an issue-less
election: is this an election at all?
        Perhaps the "fun" of an election lies in its featuring someone who you can love or hate. But even the
general election, involving nearly 600 million voters, has been reduced to a boring non-event. After all, the
Nehru-Gandhi clan has disappeared from the political map, and the majority of voters will not even be able to
name PV Narasimha Rao as India's Prime Minister. There could be as many as a dozen prime ministerial
candidates ranging from Jyoti Basu to Ramakrishna Hegde, and from Chandra Shekar to (believe it or not) KR
Narayanan. The sole personality who stands out, therefore, is none of the players, but the umpire: T.N. Seshan.
        As for the parties, they are like the blind men of Hindoostan, trying in vain to gauge the contours of the
animal they have to confront. But it doesn't look as if it will be the mandir masjid, nor will it be Hindutva, or
economic nationalism. The Congress would like it to be stability, but what does that mean for the majority?
Economic reform is a non-issue for most people and with inflation down to barely 4%, prices are not top of the
mind either. In a strange twist, after the hawala scandal, corruption has been pushed off the map too.
        But ponder for a moment. Isn't this state of affairs astonishing given the context? Consider that so many
ministers have had to resign over the hawala issue; that a governor who was a cabinet minister has also had to
quit in the wake of judicial displeasure; that the prime minister himself is under investigation for his involvement
in not one scandal but two; that the main prime ministerial candidate from the opposition has had to how out
because he too has been charged in the hawala case; and that the head of the "third force" has his own little (or
not so little) fodder scandal to face. Why then is corruption not an issue -- not as a matter of competitive politics,
but as an issue on which the contenders for power feel they have to offer the prospect of genuine change? If all

this does not make the parties (almost all of whom have broken the law in not submitting their audited accounts every year to the income tax authorities) realise that the country both needs – and is ready for -- change in fundamental ways, what will? Think also, for a moment, of the change in the functioning and attitude of the Supreme Court; the assertiveness of the Election Commission, giving new life to a model code of conduct that has been ignored for a quarter century; the independence that has been thrust upon the Central Bureau of Investigation; and the fresh zeal on the part of tax collectors out to nab corporate no-gooders. Think also that at no other point since the Emergency of 1975-77 have so many people in power been hounded by the system for their misdeeds.

In this just a case of a few individuals outside the political system doing their job, or is the country heading for a few era? The seventies saw the collapse of the national consensus that marked the Nehruvian era, and ideology took over in the Indira Gandhi years. That too was buried by Rajiv Gandhi and his technocratic friends. And now, we have these issue-less elections. One possibility is that the country is heading for a period of constitutionlism, as the other arms of the state reclaim some of the powers they lost, or yielded, to the political establishment. Economic reform freed one part of Indian society from the clutches of the political class. Now, this could spread to other parts of the system. Against such a dramatic backdrop, it should be obvious that people (voters) are looking for accountability, for ways in which to make a corrupted system work again. And the astonishing thing is that no party has sought to ride this particular wave; instead, all are on the defensive, desperately evading the real issues. No wonder this is an "issue-less" election.

85.   A suitable title to the passage would be:
        [1] Elections: A preview   [2] The country's issue-less elections.
        [3] T.N. Seshan - the real hero.   [4] Love or hate them, but vote for them.

86.   Which of the following are not under scrutiny for alleged corruption, according to the passage?
        [1] The opposition prime ministerial candidate.   [2] P.V. Narasimha Rao.
        [3] The leader of the 'third force'.   [4] Ramakrishna Hegde.

87.   Why does the author say that the sole personality who stands out in the elections is T. N. Seshan?
        [1] Because all the other candidates are very boring.
        [2] Because all the other candidates do not have his charisma.
        [3] Because the shadow of his strictures are looming large over the elections.
        [4] None of the above.

88.   According to the passage, which of the following is not mentioned as even having the potential to be an issue in the elections?
        [1] The mandir/masjid issue.   [2] The empowerment of women
        [3] Economic Nationalism   [4] Hindutva

89.   Why does the author say that almost all parties have broken the law?
        [1] Because they all indulge in corrupt electoral practices.
        [2] Because they all have more income that recorded sources.
        [3] Because they are all indicted on various charges.
        [4] Because they have failed to submit audited accounts to tax authorities.

90.   Which of the following has not been responsible for the winds of change blowing through the country, according to the passage?
        [1] Greater awareness of the part of the general public
        [2] Enforcement of a model code of conduct by the Election Commission
        [3] Greater independence to the Central Bureau of Investigation.
        [4] Fresh zeal on the part of tax collectors.

SECTION – III

Number of Questions: 45

DIRECTIONS for Questions 91 to 95: Use the following data:

A manufacturer can choose from any of the three types of tests available for checking the quality of his product. The graph gives the relatives costs for each of these tests for a given percentage of defective pieces.
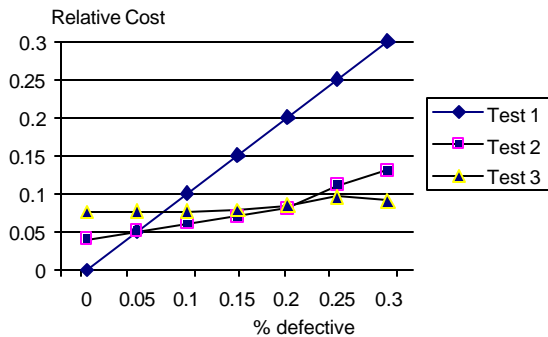

91. Adopting Test-2 will be feasible if the percentage of defective pieces (p) lies between:
    [1] 0.10 to 0.020 [2] 0.20 to 0.30   [3] 0.05 to 0.20   [4] 0.00 to 0.05

92. If p is equal to 0.2, then which test will be feasible?
    [1] either 1 or 2   [2] 2 only   [3] 3 only   [4] either 2 or 3

93. When will Test-3 be feasible?
    [1] $p > 0.2$ [2] $0.1 < p < 0.2$ [3] $0.05 < p < 0.1$ [4] $p < 0.05$

94. When is Test-1 feasible?
    [1] $p < 0.05$ [2] $0.0 < p < 0.2$ [3] $0.1 < p < 0.2$ [4] 0.05 to 0.2

95. If $p < 0.2$, then the best alternative will be:
    [1] Test-2   [2] Test-3   [3] Test-1   [4] Not Test-3

DIRECTIONS for Questions 96 to 105: The following questions are independent of each other:

96. From a circular sheet of paper with a radius of 20 cm, four circles of radius 5cm each are cut out. What is the ratio of the uncut to the cut portion?
    [1] 1 : 3   [2] 4 : 1   [3] 3 : 1   [4] 4 : 3

97. Two liquids A and B are in the ratio 5 : 1 in container 1 and in container 2, they are in the ratio 1 : 3. In what ratio should the contents of the two containers be mixed so as to obtain a mixture of A and B in the ratio 1 : 1?
    [1] 2 : 3   [2] 4 : 3   [3] 3 : 2   [4] 3 : 4

98.   Out of two-thirds of the total number of basket-ball matches, a team has won 17 matches and lost 3 of them. What is the maximum number of matches that the team can lose and still win three-fourths of the total number of matches, if it is true that no match can end in a tie?
      [1] 4   [2] 6   [3] 5   [4] 3

99.   A closed wooden box of thickness 0.5 cm and length 21 cm, width 11 cm, and height 6 cm, is panted on the inside. The cost of painting is Rs 70. What is the rate of painting in rupees per sq. cm?
      [1] 0.7   [2] 0.5   [3] 0.1   [4] 0.2

100. If a number 774958A96B is to be divisible by 8 and 9, the values of A and B, respectively, will be:
      [1] 7,8   [2] 8,0   [3] 5,8   [4] None of these

101. Once I had been to the post-office to buy stamps of five rupees, two rupees and one rupee. I paid the clerk Rs 20, and since he did not have change, he gave me three more stamps of one rupee. If the number of stamps of each type that I had ordered initially was more than one, what was the total number of stamps that I bought?
      [1] 10   [2] 9   [3] 12   [4] 8

102. Given the quadratic equation $x^2 - (A - 3) x - (A - 2)$, for what value of A will the sum of the squares of the roots be zero?
      [1] - 2   [2] 3   [3] 6   [4] None of these

103. I sold two watches for Rs. 300 each, one at a loss of 10% and the other at a profit of 10%. What is the percent loss (-) or the percent profit (+) that resulted from the transaction?
      [1] (+) 10   [2] (-) 1   [3] (+) 1   [4] 0

104. The price of a Maruti car rises by 30% while the sales of the car came down by 20%. What is the percent change in the total revenue?
      [1] - 4   [2] - 2   [3] + 4   [4] 0

105. In triangle ABC, angle B is a right angle. If AC is 6 cm, and D is the mid-point of side AC, the length of BD is:
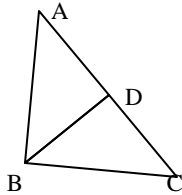
      [1] 4 cm   [2] ? 6 cm   [3] 3 cm   [4] 3.5 cm

DIRECTIONS for Questions 106 and 107: Answer the questions based on the following information:-
A, S, M and D are functions of x and y, and they are defined as follows:
   A(x, y) + x + y
      S(x, y) = x - y
      M(x, y) = xy
      D(x, y) = x/y, where y ? 0.

106. What is the value of M(M(A(M(x, y), S(y,x)), x), A(y, x)) for x = 2, y = 3
      [1] 50   [2] 140   [3] 25   [4] 70

107. What is the value of S(M(D(A(a, b), 2), D(A(a, b),2)), M(D(S(a, b), 2), D(S(a, b),2)))
      [1] a² + b²   [2] ab   [3] a² -b²   [4] a/b

DIRECTIONS for Questions 108 to 110: The following questions are independent of each other:

108. In the figure 'O' is the center of the circle and PT is the tangent to the circle at T. If PC = 4 cm and PT = 8 cm, find the radius of the circle.
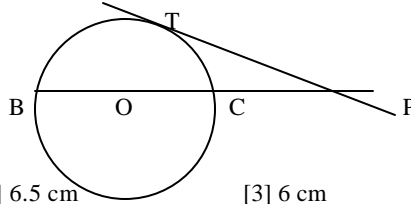
    [1] 5.5 cm   [2] 6.5 cm   [3] 6 cm   [4] 7 cm

109. Which of the following value of x do not satisfy the inequality $(x^2 - 3x + 2 > 0)$ at all?
    [1] 1 ? ? ? 2   [2] - 1 ? x ? - 2   [3] 0 ? x ? 2   [4] 0 ? x ? - 2

110. A man travels three-fifths of distance AB at a speed of 3a, and the remaining at a speed of 2b. If he goes from B to A and back at a speed of 5c in the same time, then:
    [1] 1/a + 1/b = 1/c   [2] a + b = c   [3] 1/a + 1/b = 2/c   [4] None of these

DIRECTIONS for Questions 111 to 112: Answer the questions based on the following data:
A salesman enters the quantity sold and the price into the computer. Both the numbers are two-digit numbers. Once, by mistake, both the numbers were entered with their digits interchanged. The total sales value remained the same, i.e. Rs. 1148, but the inventory reduced by 54.

111. What is the actual price per piece?
    [1] 82   [2] 41   [3] 56   [4] 28

112. What is the actual quantity sold?
    [1] 28   [2] 14   [3] 82   [4] 41

DIRECTIONS for Questions 113 and 114: In a locality, there are five small towns, A, B, C, D and E. The distances of these towns from each other are as follows:
    AB = 2km   AC = 2 km   AD > 2 km   AE > 3 km   BC = 2km
    BD = 4 km   BE = 3 km   CD = 2 km   CE = 3km   DE > 3 km

113. If a ration shop is to be set up within 2 km of each city, how many ration shops will be required?
    [1] 2   [2] 3   [3] 4   [4] 5

114. If a ration shop is to be set up within 3 km of each city, how many ratio shops will be required?
    [1] 1   [2] 2   [3] 3   [4] 4

DIRECTIONS for Questions 115 to 118: Choose the best alternative:

115. The cost of a diamond varies directly as the square of its weight. Once, this diamond broke into four pieces with weights in the ratio 1 : 2 : 3 : 4. When the pieces were sold, the merchant got Rs. 70,000 less. Find the original price of the diamond.
    [1] Rs. 1.4 lakh   [2] Rs. 2.0 lakh   [3] Rs. 1.0 lakh   [4] Rs. 2.1 lakh

116. A cube of side 12 cm is painted red on all the faces and then cut into smaller cubes, each of side 3 cm. What is the total number of smaller cubes having none of their faces painted?
    [1] 16   [2] 8   [3] 12   [4] 24

117. The points of intersection of three lines, 2X + 3Y - 5 = 0, 5X - 7Y + 2 = 0, and 9X - 5Y - 4 = 0:
    [1] form a triangle.   [2] are on lines perpendicular to each other.
    [3] are on lines parallel to each other.   [4] are coincident.

118. If n is any odd number greater t han 1, then $n(n^2 - 1)$ is
    [1] divisible by 48 always   [2] divisible by 24 always
   [3] divisible by 6 always   [4] None of these

DIRECTIONS for Questions 119 to 123: Each item has a questions followed by two statements.

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Mark [1] if the question can be answered with the help of statement 1 alone
Mark [2] if the question can be answered with the help of statement 2 alone.
Mark [3] if the question can be answered with the help of both statements but not with the help of either statement alone.
Mark [4] if the question cannot be answered even with the help of both the given statements.

119.   What is the radius of the inscribed circle of triangle ABC?
        I. The area of the triangle is 20 cm²   II. The perimeter of the triangle is 20 cm.

120.   What is the value of K?
        I. $9x^2 + kx + 25$ is the perfect square.   II. $|k| = -k$

121.   Is the area of triangle ABC equal to that of triangle DEF? The triangles are inscribed in the same circle.
        I. Their perimeters are equal.
        II. The angles of triangles ABC are respectively equal to the angles of triangle DEF.

122.   ABC is a right triangle, with the right angle at B. BD is the bisector of angle B. Is AD > DC?
        I. C = 40°   II. Hypotenuse AC = 15 cm.

123.   Which has the greater area: rhombus ABCD or square PQRS?
        I. Perimeter of rhombus = 8 and one angle measures 30°.
        II. Perimeter of square = 4.

*DIRECTIONS for Questions 124 to 128:* Choose the best alternative

124.   The figures shows a circle of diameter AB and radius 6.5 cm. If chord CA is 5 cm long, find the area of triangle ABC.
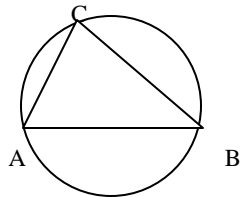
        [1] 60 sq.cm.   [2] 30 sq.cm   [3] 40 sq.cm.   [4] 52 sq.cm.

125.   In a locality, two-thirds of the people have cable-TV, one-fifth have VCR, and one-tenth have both, what is the fraction of people having either cable TV or VCR?
        [1] 19/30   [2] 3/5   [3] 17/30   [4] 23/30

126.   If ABCD is a square and BCE is an equilateral triangle, what is the measure of the angle DEC?

        [1] 15^0 [2] 30° [3] 20^0 [4] 45^0
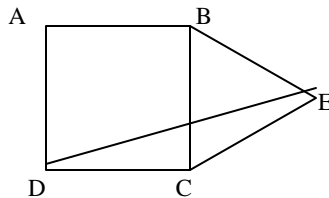
127.   I bought 5 pens, 7 pencils and 4 erasers. Rajan bought 6 pens, 8 erasers and 14 pencils for an amount which was half more than what I had paid. What percent of the total amount paid by me was paid for the pens?

[1] 37.5%   [2] 62.5%   [3] 50%   [4] None of these

128. Distance between A and B is 72 km. Two men started walking from A and B at the same time towards each other. The person who started from A travelled uniformly with average speed 4 kmph. While the other man travelled with varying speeds as follows: In first hour his speed was 2 kmph, in the second hour it was 2.5 kmph, in the third hour it was 3 kmph, and so on. When will they meet each other?
[1] 7 hours   [2] 10 hours   [3] 35 km from A   [4] midway between A & B

DIRECTIONS for Questions 129 and 130: Use the following information:
A watch dealer incurs an expense of Rs 150 for producing every watch. He also incurs an additional expenditure of Rs. 30,000, which is independent of the number of watches produced. If he is able to sell a watch during the season, he sells it for Rs. 250. If he fails to do so, he has to sell each watch for Rs. 100.

129. If he is able to sell only 1200 out of the 1500 watches he has made in the season, then in the season he has made a profit of:
[1] Rs. 90,000   [2] Rs. 75,000   [3] Rs. 45,000   [4] Rs. 60,000

130. If he produces 1500 watches, what is the number of watches that he must sell during the season in order to break even, given that he is able to sell all the watches produced?
[1] 500   [2] 700   [3] 800   [4] 1,000

DIRECTIONS for Questions 131 to 135: The following questions are independent of each other:

131. A man travels form A to B at a speed of x kmph. He then rests at B or x hours. He then travels from B to C at a speed of 2x kmph and rests at C for 2x hours. He moves further to D at a speed twice as that between B and C. He thus reaches D in 16 hours. If distances A-B, B-C, C-D are all equal to 12 km, the time for which he rested at B could be:
[1] 3 hours   [2] 6 hours   [3] 2 hours   [4] 4 hours

132. Instead of a metre scale, a cloth merchant uses a 120 cm scale while buying, but uses an 80 cm scale while selling the same cloth. If he offers a discount of 20 percent on cash payment, what is his overall percent profit?
[1] 20%   [2] 25%   [3] 40%   [4] 15%

133. A man has nine friends, four boys and five girls. In how many ways can he invite them, if there have to be exactly three girls in the invitees?
[1] 320   [2] 160   [3] 80   [4] 200

134. In a watch, the minute hand crosses the hour hand for the third time exactly after every 3 hrs 18 min 15 seconds of watch time. What is the time gained or lost by this watch in one day?
[1] 14 min 10 seconds lost   [2] 13 min 50 seconds lost
[3] 13 min 20 second gained   [4] 14 min 40 second gained.

135. In a mile race Akshay can be given a start of 128 metres by Bhairav. If Bhairav can given Chinmay a start of 4 metres in a 100 metres dash, then who out of Akshay and Chinmay will win a race of one and half mile, and what will be the final lead given by the winner to the loser? (One mile is 1600 metres).
[1] Akshay, 1/12 miles   [2] Chinmay, 1/32 miles
[3] Akshay, 1/24 miles   [4] Chinmay, 1/16 miles

Number of Questions: 40

DIRECTIONS for Questions 136 to 140: Answer the questions based on the following graph:
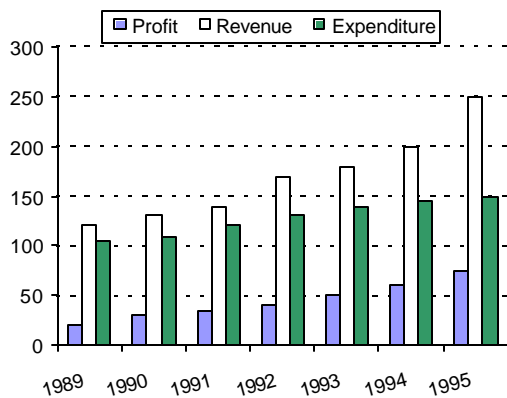
136.   Which year of showed the greatest percentage increase in profit as compared to the previous year?
[1] 1993   [2] 1994   [3] 1990   [4] 1992

137.   The average revenue collected in the given seven years is approximately:
[1] Rs. 164 lakh   [2] Rs. 168 lakh   [3] Rs. 171 lakh   [4] Rs. 175 lakh

138.   In which year was the growth in expenditure greatest as compared to the previous year?
[1] 1993   [2] 1995   [3] 1991   [4] 1992

139.   The expenditure for the seven years together form what percent of the revenues during the same period?

[1] 75%   [2] 67%   [3] 62%   [4] 83%

140.   If the profit in 1996 shows the same annual rate of growth as it had shown in 1995 over the previous year, then what approximately will be the profit in 1996?
        [1] Rs. 72 lakh   [2] Rs. 86 lakh   [3] Rs. 93 lakh   [4] Rs. 78 lakh

DIRECTIONS for Questions 141 to 145: Answer the questions based on the following table, which gives data about certain coffee producers in India:

	Production ('000 tones)	Capacity Utilisation (%)	Sales ('000 tonnes)	Total Sales Value (Rs. Cr.)
Brooke Bond	2.97	76.50	2.55	31.15
Nestle	2.48	71.20	2.03	26.75
Lipton	1.64	64.80	1.26	15.25
MAC	1.54	59.35	1.47	17.45
Total (incl. Others)	11.60	61.30	10.67	132.80

141.   What is the maximum production capacity (in '000 tonnes) of Lipton for coffee?
        [1] 2.53   [2] 2.85   [3] 2.24   [4] 2.07

142.   The highest price of coffee per kg is for
        [1] Nestle   [2] MAC   [3] Lipton   [4] Insufficient data

143.   What percent of the total market share (by Sales Value) is controlled by "Others"?
        [1] 60%   [2] 32%   [3] 67%   [4] Insufficient data.

144.   What approximately is the total production capacity (in tonnes) for coffee in India?
        [1] 18, 100   [2] 20, 300   [3] 18,900   [4] Insufficient data.

145.   Which company out of the four companies mentioned above has the maximum unutilised capacity (in '000 tonnes)?
        [1] Lipton   [2] Nestle   [3] Brooke Bond   [4] MAC

DIRECTIONS for Questions 146 to 150: Use the following data:

Mulayam Software Co., before selling a package to its clients, follows the given schedule:

Month	Stage	Cost (Rs. '000 per man-month)
1-2	Specification	40
3-4	Design	20
5-8	Coding	10
9-10	Testing	10
11-15	Maintenance	10

The number of people employed in each month is:

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
No. of people employed	2	3	4	3	4	5	5	4	4	1	3	3	1	1	1

146.   Due to overrun in Design, the Design stage took three months, i.e. months 3, 4 and 5. The number of people working on Design in the fifth month was 5. Calculate the percentage change in the cost incurred in the fifth month. (due to improvement in "Coding" technique, the stage was completed in months 6- 8 only).
        [1] 225%   [2] 150%   [3] 275%   [4] 240%

147.   With reference to the above question, what is the cost incurred in the new "Coding" stage? (Under the new technique, 4 people work in the sixth month and 5 in the eighth).
        [1] Rs. 1,40,000   [2] Rs. 1,50,000   [3] Rs. 1,60,000   [4] Rs. 1,70,000

148. Under the new technique, which stage of Software Development is most expensive for Mulayam Software company?
   [1] Testing   [2] Spolcification   [3] Coding   [4] Design

149. Which five consecutive months have the lowest average cost per man-month under the new technique?
   [1] 1- 5   [2] 9 - 13   [3] 11 - 15   [4] None of the these

150. What is the difference in the cost between the old and the new techniques?
   [1] Rs. 30,000   [2] Rs. 60,000   [3] Rs. 70,000   [4] Rs. 40,000

DIRECTIONS for Questions 151 to 155: Answer the questions based on the following information:
The amount of money invested (in rupees crore) in the core infrastructure areas of two districts, Chittoor and Khammam, Andhra Pradesh as follows:

Chittoor District			*Khammam District*		
Core Area	1995	1996	Core Area	1995	1996
Electricity	815.2	1054.2	Electricity Area	2065.8	2365.1
Chemical	389.5	476.7	Chemical	745.5	986.4
Thermal	690.4	565.9	Thermal	1232.7	1026.3
Solar	468.1	589.6	Solar	1363.5	1792.1
Nuclear	617.9	803.1	Nuclear	1674.3	2182.1
Total	*2981.1*	*3489.5*	*Total*	*7081.6*	*8352.0*

151. By what percent was the total investment in the two districts more in 1996 as compared to that in 1995?
   [1] 14%   [2] 21%   [3] 24%   [4] 18%

152. Approximately how many times the total investment in Chittoor was the total investment in Khammam?
   [1] 2.8   [2] 2.0   [3] 2.4   [4] 1.7

153. The investment in Electricity and Thermal Energy in 1995 in these two districts formed what percent of the total investme nt made in that year?
   [1]) 41%   [2] 47%   [3] 52%   [4] 55%

154. In Khammam district the investment in which area in 1996 showed the least percent increase over the investment in that area in 1995?
   [1] Electricity   [2] Chemical   [3] Solar   [4] Nuclear

155. If the total investment in Khammam shows the same rate of increase in 1997, as it had shown from 1995 to 1996, what appropriately would be the total investment in Khammam in 1997 (in Rs. crore)?
   [1] 9,850   [2] 10,000   [3] 9,170   [4] 8,540
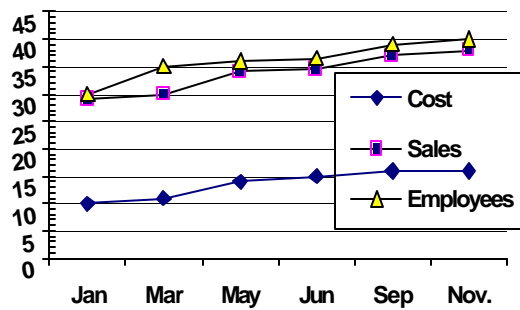
156.   Which month has the highest profit per employee?
        [1] September   [2] July   [3] January   [4] March

157.   Which month records the highest profit?
        [1] September   [2] July   [3] March   [4] May

158.   In which month is the percentage increases in Sales over the Sales two months before, the highest?
        [1] March   [2] September   [3] July   [4] May
159.   In which month is the total increase in the Cost highest as compared to the Cost two months ago?
        [1] March   [2] September   [3] July   [4] May

160.   Assuming that no employee left the job, how many more people did the company take on in the given
        period?
        [1] 4,600   [2] 5,100   [3] 5, 800   [4] 6, 400

DIRECTIONS for Questions 161 to 165: Answer the questions based on the following data:
The first table gives the percentage of students in the class of M.B.A who sought employment in the areas of
Finance, Marketing and Software. The second table given the average staring salaries of the students per month,
in these areas.
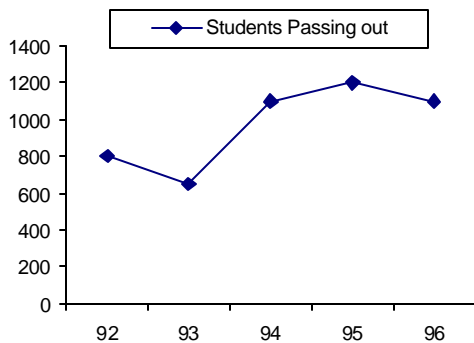
	Finance	Marketing	Software	Others
1992	12	36	19	33
1993	17	48	23	12
1994	23	43	21	13
1995	19	37	16	28
1996	32	32	20	16

	Finance	Marketing	Software
1992	5,450	5,170	5,290
1993	6,380	6,390	6,440
1994	7,550	7,630	7,050
1995	8,920	8,960	7,760
1996	9,810	10,220	8,640

161.   The number of students who got jobs in finance is less than the number of students getting marketing jobs, in the five years, by
        [1] 826   [2] 650   [3] 725   [4] 548

162.   In 1994, students seeking jobs in finance earned Rs. _____ more than those opting for software (in lakhs)
        [1] 43   [2] 33.8 [3] 28.4 [4] 38.8

163.   What is the percent increase in the average salary of Finance from 1992 to 1996?
        [1] 60   [2] 32   [3] 96   [4] 80

164.   What is the average monthly salary offered to a management graduate in the year 1993?
        [1] 6433   [2] 6330   [3] 6333   [4] Cannot be determined.

165.   The average annual rate at which the initial salary offered in Software, increases
        [1] 21% [2] 33% [3] 16.3%   [4] 65%

DIRECTIONS for Questions 166 to 175:
In each question, you are given certain data followed by two statements. For answering the questions:
Mark [1], if both the statements together are insufficient to answer the question.
Mark [2], if any one of the two statements is sufficient to answer the question.
Mark [3], if each statement alone is sufficient to answer the question.
Mark [4], if both the statements together are sufficient to answer the question, but neither statement alone is sufficient.

166.   What is the Cost Price of the article?
        I. After selling the article, a loss of 25% on Cost Price incurred.
        II. The Selling Price is three-fourths of the Cost Price.

167.   If a, b, c are integers, is $(a - b + c) > (a + b - c)$?
        I. b is negative   II. c is positive.

168.   What is the Selling Price of the article?
        I. The profit on Sales is 20%.
        II. The profit on each unit is 25% and the Cost Price is Rs. 250.

169.   A tractor travelled a distance of 5 m. What is the radius of the rear wheel?
        I. The front wheel rotates "N" times more than the rear wheel over this distance.
        II. The circumference of the rear wheel is "t" times that of the front wheel.

170.   What is the ratio of the two liquids A and B in the mixture finally, if these two liquids kept in three vessels are mixed together? (The containers are of equal volume)
        I. The ratio of liquid A to liquid B in the first and second vessel is, respectively, 3 : 5, 2 : 3.
        II. The ratio liquid A to liquid B in vessel 3 is 4 : 3.

171.   If ? , ? are the roots of the equation $(ax^2 + bx + c = 0)$, then what is the value of $(?^2 + ?^2)$?
        I. ? + ? = - (b/a)   II. 2? ? = (c/a)

172.   What is the number of type 2 widgets produced, if the total number of widgets produced is 20,000?
        I. If the production of type - 1 widgets increases by 10% and that of type-2 decreases by 6%, the total production remains the same.
        II. The ratio in which type - 1 and type - 2 widgets are produced is 2 : 1.

173.   How old is Sachin in 1997?
        I. Sachin is 11 years younger than Anil whose age will be prime number in 1998.
        II. Anil's age was a prime number in 1996.

174.   What is the total worth of Lakhiram's assets?

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I. Compound interest at 10% on his assets, followed by a tax of 4% on the interest, fetches him Rs . 15000 this year.
II. The interest is compounded once every four months.

175.   How many different triangles can be formed?
         I. There are 16 coplanar, straight lines in all.   II. No two lines are parallel.

ANSWER KEY

SECTION I

1. [3]	2. [2]	3. [3]	4. [4]	5. [2]
6. [3]	7. [1]	8. [2]	9. [3]	10. [2]
11. [1]	12. [4]	13. [3]	14. [2]	15. [4]
16. [2]	17. [4]	18. [3]	19. [4]	20. [1]
21. [4]	22. [3]	23. [2]	24. [3]	25. [2]
26. [2]	27. [4]	28. [2]	29. [3]	30. [1]
31. [1]	32. [1]	33. [2]	34. [1]	35. [4]
36. [4]	37. [1]	38. [3]	39. [2]	40.[1]

SECTION II

41. [2]	42. [4]	43. [2]	44. [1]	45. [2]
46. [3]	47. [1]	48. [3]	49. [2]	50. [1]
51. [3]	52. [4]	53. [2]	54. [1]	55. [4]
56. [1]	57. [3]	58. [2]	59. [1]	60. [2]
61. [3]	62. [3]	63. [2]	64. [4]	65. [4]
66. [1]	67. [1]	68. [1]	69. [4]	70. [1]
71. [4]	72. [2]	73. [3]	74. [2]	75. [3]
76. [4]	77. [2]	78. [4]	79. [3]	80. [2]
81. [3]	82. [3]	83. [1]	84. [1]	85. [2]
86. [4]	87. [3]	88. [2]	89. [3]	90. [1]

SECTION III

91. [3]	92. [4]	93. [1]	94. [1]	95. [4]
96. [3]	97. [4]	98. [1]	99. [3]	100. [2]
101. [1]	102. [4]	103. [2]	104. [3]	105. [3]
106. [4]	107. [2]	108. [3]	109. [1]	110. [3]
111. [2]	112. [1]	113. [1]	114. [1]	115. [3]
116. [2]	117. [4]	118. [2]	119. [3]	120. [3]
121. [2]	122. [1]	123. [3]	124. [2]	125. [4]
126. [1]	127. [2]	128. [4]	129. [3]	130. [2]
131. [1]	132. [1]	133. [2]	134. [2]	135. [4]

SECTION IV

136. [4]	137. [2]	138. [4]	139. [1]	140. [2]
141. [1]	142. [4]	143. [2]	144. [3]	145. [4]
146. [2]	147. [1]	148. [4]	149. [3]	150. [2]
151. [4]	152. [3]	153. [2]	154. [1]	155. [1]
156. [4]	157. [1]	158. [4]	159. [4]	160. [2]
161. [2]	162. [2]	163. [4]	164. [4]	165. [3]
166. [1]	167. [4]	168. [2]	169. [1]	170. [1]
171. [1]	172. [3]	173. [1]	174. [4]	175. [1]

91.   One can logically assume that a test will be feasible if its relative cost is lower than that of any other test. Test -2 has the lowest relative cost in the range 0.05% to 0.2%, so the answer is [3].

92.   For p = 0.2, both, Test-2 and Test - 3 have the same relative cost, so both of them are feasible.

93.   Test-3 has the lowest relative cost for the range p > 0.2, so Test - 3 will be the best option to adopt for p > 0.2.

94.   In the range 0.00 < p < 0.05, Test - 1 has the lowest relative cost, so the answer is (a), i.e. p < 0.05.

95.   If p < 0.2, then initially Test -1 is more feasible, while thereafter, Test -2 is a better option. While we cannot say from the data given in the question, which of these two tests is better, we can definitely say that Test-3 is the most expensive test for the range p < 0.2. Hence the answer is [4].

96.   The area of the original paper is $?(20)^2 = 400?$. The area of the cut portion is $4 ? (?)(5)^2 = 100?$. Thus the area of the uncut portion is $300?$. ? the required ratio is 300?: 100?, i.e. 3 : 1.

97.   The problem can easily be solved by alligation. In container 1, the ratio of liquid A to the total liquid is $5/(5 + 1) =$ 5/6. In container 2, this ratio is $1/(1 + 3) = ¼$. In the final mixture, this ratio will be $1/(1 + 1) = ½$. Alligating as shown, we get the required ratio as 3 : 4.
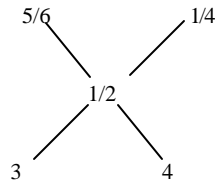
98.   The team has already played 17 (won) + 3 (lost) = 20 matches. These constitute two-thirds of the total matches. Thus the total number of matches is 30. If the team is supposed to win three-fourths of these, it has to win 22.5, i.e. 23 matches in all. There are (30 - 20) = 10 matches remaining. So the team has to win (23 - 17) = 6 of these 10 matches, i.e. it can lose no more than (10 - 6) = 4 matches.

99.   Since the box is a closed box, and the thickness of wood is 0.5 cm, its inner dimensions will be 20 cm, 10 cm, 5 cm. The inner painted area will be $2[(20 ? 10) + (10 ? 5)] = 700$ sq.cm. Painting 700 sq. cm. costs Rs. 70, so the rate of painting is Rs. (70/700) = Rs. 0.1 per sq.cm.

100.   Since the number is divisible by 8, its last 3 digits are divisible by 8. 960 or 968 are th two possible options, so B is either 0. or 8. Since the number is divisible by 9, the sum of its digits is divisible by 9. Adding the digits, we get (55 + A + B) is a multiple of 9. If B = 8, a must be 9, but no such option is given. If B = 0, A = 8. ? (A, B) = (8, 0), and the answer is [2].

101.   At least two stamps of each type were ordered initially. So Rs. 2(5 + 2 + 1) = Rs. 16 have been spent. That leaves Rs. (20 - 16) = Rs. 4. In these Rs. 4, three more stamps of one rupee were given, thus accounting for Rs. 19 in all. Since one more rupee remains, it means that one more stamps of Rs. 2 was bought initially. So the total number of stamps is 2(0f Rs. 5) + 3 (of Rs. 2) + 4(of Re. 1). Note that this is the only possible combination of stamps which is consistent with the given data.

102.   Let the roots be p and q. the given quadratic equation can be written as $ax^2 + bx + c$, where a = 1, b = - (A - 3), c = - (A - 2). The sum of the roots is (p + q) = (- b/a) = (A - 3), and the product of the roots is (pq) = (c/a) = (- A + 2). The sum of the squares of the roots is $[(p + q)^2 - 2pq] = (A - 3)^2 - 2(- A + 2) = 0$. Solving this quadratic, we get A = 5 or A = - 1. Neither of these values is among the first three choices.

103.   The data given in the problem satisfies certain conditions like:
1. The selling Price (SP) of both articles is the same.
2. One transaction is a loss and the other is a gain, and
3. The % profit is equal to the % loss (= p, say)
In such cases, we can use the following inferences:
1. The net transaction is a loss.
2. The % loss is given by $(p^2/100)$. In the given problem, p = 100, ? % loss = 1.

104.   The price becomes 1.3p from the original price p, while the sales come down to 0.8s from the original sales s. Thus the old revenue was (p ? s). While the new revenue 9s (1.04p ? s). Thus the % change in the revenue is [(1.04 - 1.00) ps/ps] ? 100 = 4%.

105.   In a right angled triangle, the median is half the length of the hypotenuse = ½(6) = 3 cm.

106 and 107: Substitute the values and find the answers. Be careful while carrying out the substitutions, especially   the order of x and y in the subtractions and the divisions.

108.   [3].
       $PT^2 = PC ? PB$; let PB= x
       i.e., 64 = 4 x ?   x=16
       i.e.. PB=BC+PC? 16=BC+4 ? BC=2OC=12

109.   Hence radius is 6 cm.The given inequality involves a quadratic equation which is greater than zero. Hence the roots are either both positive, or both negative. The inequality can be reduced to (x - 1) (x - 2) > 0. This given (x > 2) as one range and (x < 1) as the other. Thus in-between these two extreme values, i.e. in the range (1 ? x ? 2), there is no value of x which satisfies the given inequality.

110.   Assume the distance from A to B to be 5d. Time taken is given as (distance/speed). So for travelling a distance 3d, the man takes time = (3d/3a) = (d/a). Similarly for travelling a distance 2d, the man takes time = (2d/2b) = (d/b). He goes from B to a and back, i.e. covers a distance of 10d at a speed of 5c. The time taken for this is (10d/5c) = (2d/c). Equating the two, we get, [(1/a) + (/b) = (2/c)].

111 to 112:
       Let the number of pieces sold be n and the price of each piece be p. Then total sales value, v, is given by pn,   ? 1148 = pn. From the choices given in this question, rule out 56,. Because 56 when reversed gives 65, which cannot be a factor of 1148. Try dividing 1148 by the first option, i.e. 82. The quotient is 14. Check that both, 82 and 14, when reversed give 28 and 41, whose product is 1148. Now we have identified the four   numbers.
       We can now make use of the data that the inventory reduced by 54. Inventory is the quantify available in store. i.e. the remainder after having sold a certain number of pieces. If the inventory reduces by 54, it means that if actually x pieces are sold, then ON RECORD, (x + 54) pieces are sold. Observe that 82 and 28 differ by 54., So, if 28 is the actual number of pieces sold, then 82 is the value entered. It follows that if 51 was the actual price per piece, then it was entered as 14.

113 and 114:
       For these problems, one should observe the various distances given and try to construct a possible configuration. One such configuration which is consistent with the data is shown in the figure alongside.
       ? ABC is an equilateral ? with side 2 km. B, C and D are collinear. Since AE 3 km, A and E are on either side of line BD.
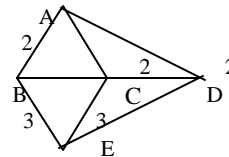
115.   Let the original cost of the diamond be rs. X, and let the weight of the diamond be (1 + 2 + 3 + 4) = 10 unis. So its original cost varies as 10², i.e. cost = 100x, say. After the diamond has broken, its cost becomes (1² + 2² + 3² + 4²)x, i.e. 30x. Thus the loss in cost is 70x. If 70x corresponds to Rs. 70,000, then the original cost 100x is rs. 1,00,000.

116.   The smaller cubes have a side 1/4th the length of the original side. Thus there are 64 small cubes, with 4 cubes along one side of the original cube. The cubes which do not have even a single side painted are the ones not exposed to the exterior at all. There are 8 cubes which do not have even a single side painted are the ones not exposed to the exterior at all. There are 8 such cubes in the centre.

117.   Verifying option [1] is very cumbersome. Options [2] and [3] can be verified by expressing the lines in the form (y = mx + c) and finding their slopes. The values of slopes clearly show that the lines are neither parallel nor perpendicular to each other. For option [4], solve any two equations and find the value of x and y. if these values of x and y satisfy the third equation also, then the lines intersect in a single point.

118.   n(n² - 1) = n(n - 1) (n + 1). If n is a an odd number and n > 1, then either of (n + 1) and (n - 1) is a multiple of 4 and the other is a multiple of 2. Also, since (n - 1), n, (n - 1) are three consecutive numbers, one of them must be a multiple of three. thus the product has to be a multiple of (4 ? 3 ? 2) = 24.

119.   [3]   Use rs = 20, and s is given by the second statement.

120.   [3]   k is negative from second statement hence both statements are required

121.   [2]   Direct statement

122.   [1]   We get the answer from the first statement.

123.   [3]   Both statements are required.

124.   The radius of the circle is 6.5, ? its diameter is 13 cm. The diameter always subtends a right angle at a point on the circumference. In the given problem one side is 5 cm (chord CA) and the hypotenuse is 13 cm (diameter AB). The third side is thus 12 cm, and the area of the ? is $(1/2)(5)(12) = 30$ cm².

125.   Assume a suitable number of people for the locality by finding out the LCM of the denominators of the fractions involved. In this case it is the LCM 3, 5 and 10, which is 30. The fractions can now be expressed as simple numbers as shown in the Venn diagram.
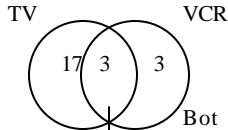
126.   Since BCE is an equilateral ? on one side of the square, each side of ?ABCE will be equal to the side of the square. Thus, DC = EC, i.e. ? \DEC is an isosceles ? in which, ? CDE = ? CED. But M ? DCE = m? DCB + m? CEB = $90 + 60 = 150^0$. ? m ? DEC = m? DEC = $(30/2) = 15^0$.

127.   Let one pen, one pencil and one eraser cost n, p and r units respectively. Let the amount paid by me be A units.
? I pay $(5n + 7p + 4r) = A$ …….. Eqn. (1)
while Rajan pays $(6n + 14p + 8 r) = 1.5 A$ ………… Eqn. (2). Multiply equation (1) by 2.
we Get $(10n + 14p + 8r)\_ = 2A$ …….. Eqn. (3). Comparing equations (2) and (3), we see that while Rajan   gets 4 pens less, he pays 0.5A units less. Thus, A = the price of 8 pens. ? the % of the total price paid by me initially, which was used for pens is $(5/8)(100) = 62.5\%$.

128.   The Let x and y be the persons who started from A and B respectively.
Midway between A and B means 36 km. From A and B both. X will take 9 hours to reach the midpoint. In 9 Hours y will also cover $2 + 2.5 + 3 + 3.5 + 4 + 4.5 + 5 + 5.5 + 6 = 36$ km. Thus y will also reach the midpoint at the same time.
Hence the answer is [4].

129.   One each of the 1200 watches that he sells in the season, he makes a profit of Rs. 100(i.e. Rs. 250 - Rs. 150). On each of the 300 (i.e. 1500 - 1200) watches that are not sold, he incurs a loss of rs. 150, which is the manufacturing cost. His additional expense is Rs. 30,000 (given). Thus his net profit in the season is Rs. $(1,20,000 - 45,000 - 30,000) = $ Rs. 45,000.

130.   Let the number of watches required to be sold in the season be x. ? he sells (1500 - x) watches out of season. The expenditure for manufacturing 1500 watches is $(1500 ? 150) = 2.25,000$. Add to this the fixed expenditure of rs. 30,000. His total income is from x watches sold at 250 and (1500 - x) watches sold at 100. ? $2,55,000 = (250)(x) + (100)(1500 - x)$. Solving, we get x = 700.

131.   We are given that AB + BC = ce = 12 km. ? time taken to travel AB at a speed of x kmph is $(12/x)$ hours. This is followed by a break of x hours. His speed from C to D is $2(2x) = 4x$ kmph. Continuing on these lines, we get, $[(12/x) + x + (12/2x) + 2x + (12/4x)] = 16$ hours. Solving we get $x = 3$ or $x = 7/3$. Only $x = 3$ is among the options given, so that is the answer.

132.   The shopkeeper uses a 120 cm scale instead of a 100 cm scale. Thus, while buying 100 cm of cloth, he pays just $(100/120)$, i.e. $(5/6)$ times the actual worth of the goods. If he has 100 cm of material, then while selling, he charges the customer for $(100/80)$, i.e. $(5/4)$ times the actual worth of goods sold. On this SP, he gives a discount of 20%, thus making the actuarial SP as $(0.8)(5/4) = 1$. Thus for 100 cm of cloth, his CP is $(5/6)$ while the SP is 1. This gives a profit of 20% on the CP.

133.   Out of the five girls, he has to invite exactly three. this can be done is $^5C_3$ ways. Out of the four boys, he may invite either one or two or three or four or even none of them. According to the standard formula, this may be done in $(2)^4$ ways. Thus the total number of ways is $^5C_3 ? (2)^4 = 10 ? 14 = 160$.

134.   In a correctly running watch, the crossing of hands should take place exactly after every $(720/11) = 65^5/11$ minutes. In this watch, it takes place after [(3 hours, 18 minutes, 15 seconds)/3] = 3] = (1 hour, 6 minutes, 5 second), i.e. 66 5/60 minutes of <u>watch</u> time. Thus the watch takes longer time to accomplish the task as compared to a correctly running watch. So this watch <u>loses</u> time = $[(66^5/60) - (65^5/11)] = (83/132)$ minutes in $65^5/11$ minutes of <u>correct</u> time. So in 1 day, i.e. $(24 ? 60)$ minutes of correct time, it will lose (83/6) minutes, i.e. 13 minutes 50 seconds.

135.   When Bhairav (B) covers 1600 m, Akshay (A) covers (1600 - 128) m. So, when B covers $(1600/16) = 100$ m, A covers $(128/16)$ m = 8 m less. When B covers 100 m, C covers (100 - 4) = 96 m. Thus the ratio in which A and C

cover distances is 92 : 96. In 96 m, C gains (96 - 92) = 4 m over A. So in 1.5 miles (i.e. 2400 m), c gains 100 m = (1/16) miles over A.

SECTION – IV

136-140: Note down the corresponding values of Profit, Revenue & Expenditure on the bar graph itself, keeping in mind, Profit = Revenue - Expenditure. The values read from the graph should satisfy this condition for each year. Here corresponding values are given in the form of a table to make the solution easier to understand:

YEAR	1989	1990	1991	1992	1993	1994	1995
Profit	20	25	30	40	50	60	72
Reven.	122	130	145	170	185	200	222
Expend.	102	105	115	130	135	140	150

136.   Percentage Increase = [Final value - Initial value] 100/Initial value Using this formula & conversion of fractions into percentage, calculate the percentage increase for the various years. Maximum percentage increase is for the year 1992 = (40 - 30)/30 = 1/3 = 33.33%.

137.   Average Revenue = (Total Revenue)/(Number of years)
= (122 + 130 + 145 + 170 + 185 + 200 + 222)/7
= 1174/7
= 167.7 = 168(approx.)

138.   From the table, it can be seen that growth in expenditure as compared to the previous year was maximum in 1992.

139.   Total Revenue = 1174
Total Expenditure = 700 + (2 + 5 + 15 + 30 + 35 + 40 + 50) = 887
% formed by the revenue = 887/1174 ? 900/1200 = ¾ = 75%
[Actual values will give 75.55% & again (a) will be the correct answer but you can save time using approximations]

140.   % profit in 95 = (72 - 60) /60 = 1/5 = 20%
As per the given condition % profit in 96 = 20%
Then total profit will be (6 ? 72)/5 ? 86 lakhs.

141-145:
141.   For Lipton production = 1.64 ("000 tonnes)
Capacity Utilisation = 64.8% ? 65%
65% = 13/20, so maximum production capacity = (20 ? 1.64)/13 = 32.8/13 ? 2.53 ('000 tonnes)

142.   Data insufficient, because different varieties of coffee of the same brand may have different prices. We can not assume that there will be only one variety of coffee of each brand.

143.   Total States Value (incl. Others) = 132.8(Rs. Cr.)
Sales value (BB + Nestle + Lipton + MAX) = [31.15 + 26.75 + 15.25 + 17.45]
= 90.60 (Rs. Cr.)
Total sales value of others = 132.8 - 90.60 = 42.2 (Rs. Cr)
Others /Total = 42.2/132,8 ?1/3 (approx.)
% share of others = 33.33% (approx.)
Hence, the closest option will be the correct answer i.e. 32%.

144.   Total prod capacity = [100 ? Total prod. ('000 tonnes)] /(% Capacity utilisation)
= (100 ? 11.63)/61.3
= 1160/50 (approx.)
= 19.3 ('000 tonnes)
Here we are taking approximate value of the denominator to be less than the actual value, so Hence, the closest option will be the correct answer i.e. 18,900.
Unutilised capacity of a company is given by.

145.   (100 - % capacity utilisation) (Production '000 tonnes)/(5 capacity utilisation)
Substituting the corresponding values from the table, we get maximum unutilised cap. Is for MAC i.e. (100 - 59.35) ? (1.54)/59.35 ? 1.05 ('000 tonnes)

146-150:
146.   As per the plan number of men working in 5th month was 4 & these 4 men were supposed to do coding. Cost per man - month for coding = Rs. 10000.

Total cost in 5th month = 4 ? 10000 = Rs. 40,000
Number of people actually working in 5th month is 5 & these 5 men are doing the design part of the
          project. Cost per man - month for design = Rs. 20,000.
Total cost in 5th month = 5 ? 20,000 = Rs. 1,00,000
% change = (100000 - 40000) 100/40000 = 150%.

147.   total man months required for coding = (4 + 5 + 5) = 14
Cost per man month coding = Rs. 10,000
Total cost incurred in new coding stage = 14 ? 10,000 = Rs. 1,40,000

148.   Total cost in a stage = (Num. Of man months)(Cost per man month in that stage)
Total cost in specification = (2 + 3) 40,000 = Rs. 2,00,000.
Total cost in design = (4 + 3 + 5) 20000 = Rs. 2,40,000.
Total cost in coding = Rs. 1,40,000
Total cost in testing = (4 + 1) 1500 = Rs. 75000
Hence the correct answer is [4].

149.   Average cost/man month = (Total cost in that period)/ (No. of man months taken) Average cost per man month will
be minimum for 11-15 month i.e. (90000/9) = Rs. 10,000.

150.   In two cases cost will be different in 5th, 6th & 8th month. From 156, cost will be Rs. 60,000 more in the 5th month,
Rs. 20,000 less in the 6th month & Rs. 20,000 more in the 8th month. So net difference will be Rs. 60,000.

151-155:
151.   Total investment in 1995 = (2923 + 7081.6) = 10,000 crores
Total investment in 96 = (3489 + 8352) ? 11,840
Percentage increase = (11,840 - 1000) 100/10000
= 18.4 = 18 (approx.)
Hence the correct answer is [4].

152.   Total investment in Chittor district = (2923.1 + 3489.5) ? 6400 (approx.)
Total investment in Khammam district = (7081.6 + 8352.0) ? 15400 (approx.)
Required Ratio = 77/32 = 2.4 (approx.)

153.   Total investment in Electricity & Thermal Energy in 1995 = (81.2 + 632.4 + 2065.8 + 1232.7)
= (800 + 650 + 2100 + 1200) = 4750(approx.)
Percentage = (4750)/(1000) = 47.5 (approx.)
Hence the correct answer is [2]

154.   Again use approximate values & degree of approximation allowed will depend on the difference in the various
options.
Electricity = (23 - 20) 100/20 = 15%
Chemical = 22/74 = 28%
Solar = 4/12 = 30%
Nuclear = 5/16 = 31%
Hence the correct answer is [1]

155.   % increase from 95 to 96 = % increase from 96 to 97
(8352.0 - 7081.6)/7081.6 = (x - 8352.0) /8350
Using approximation, 1270/7080 = (x - 8350)/8350
X = 9850.

156 - 160: This caselet is very easy & most of the questions can be answered just by careful observation without doing actual
calculations.

156.   In May number of employees suddenly increases but the profit is increasing at much slower rate so profit per
employee must be highest either in Jan. or in March & comparing the values for the graph, March is the correct
answer.

157.   Profit = {Sales - Cost}, the difference between the line graph for sales & line graph for cost is maximum in
September & so September is the correct ans.

158.   Comparing the value for sales in various months as per the conditions, maximum difference is between January &
March and base value is minimum for January, so % increase will be maximum in March.

159.   Increase in cost is maximum for May i.e. 34 - 30 = 4 on the line graph.

160. Num. Of persons employed = Num. Of employee in Nov. - Num. Of employee in Jan = 15,800 - 10,800 = 5000(apporx).
Closest ans. is 5100 & so [2] is the correct answer.

161-165:
161. Num of such students = (36 - 12)% of 800 + (48 - 17)% of 730 + (43 - 23)% of 1100
= 24% of 800 + 31% of 730 + 20% of 1100
= 192 + 226 + 220
= 638 (approx.)
Closest option is 650, so [2] is the correct answer.

162. In 1994 total money earned by finance students = 23% of 110 x(7550 ? 12)
Similarly total money earned by s/w students = 21% of 110 x(7050 ? 12)
Difference = 1320 (23 ? 755 - 21 ? 705) = 33.8 lakhs (approx.)

163. 5 increase in average salary of finance = (9810 - 5450) 100/5450
= 8700/109
80% (approx.)

164. Can no be determined as average monthly salary of students in 'Others' category is not given.

165. % Increase in initial sal. In s/w = (8640 - 5290)100/5290
? (3350 ? 100)/5300
? 63.3%
Annual increase = 63.3/4 = 15.8 (approx.)
Closest option is 16.3%, so [3] is the correct answer.

(Solutions to Q. 166 to 175, Data Sufficiency)
Students may please note that Data sufficiency questions require that one arrives at a unique answer, and that too, not in terms of any variable, but n numerical terms only. Only if such an answer can be obtained can one say that the question can be fully answered. Also, students are cautioned to be careful abut the type of inference associated with answers a, b, c and d. The order of these inferences differs from paper to paper.

166. We are required to find out the exact cost price. Both the statements give the same information , i.e. the SP is 0.75 times the CP. So the answer is [1]

167. Cancel out the integer "a" on both the sides of he inequality. Arrange "b" on one side of the inequality and "c" on the other. We have to now determine the relation between (- 2b) and (- 2c). If "b" is - ve, then (- 2b) is + ve. If "c" is + ve, then (- 2c) is - ve. So (- 2b) > (- 2c). Since both the statements are required to determine the outcome, we get [4] as the answer.

168. By default, the profit is always mentioned as a % of the CP. From st atement [2], we see that the profit on the article is 25% of rs. 250, which is Rs. 62.50. So the SP can be determined with the help of statement [2] alone, and the answer is [2].

169. To find the radius of the rear wheel, we need to know the <u>numerical</u> value of its circumference. From statement [1], we get a relation between the circumferences of the two wheels in terms of "N". From statement [2], we get similar information in terms of "t". Thus, the radius cannot be determined from the given data and the answer is [1].

170. There is a catch in the problem. Although the containers are of equal volume, it is not known to what extent these containers are <u>filled</u> by the liquids A and B. (i.e. the first container might be half full, while the second might be two-thirds full). Until such details are known, the final ratio of liquids A and B cannot be found out. Thus, the answer is [1].

171. The two statements given the standard results which hold good for any quadratic equation of the given form. ($?^2$ + $?^2$) can be obtained as [$(? + ?)^2$ - 2? ?]. From the given statements one can get an answer only in terms of a and b. So the answer is [1].

172. If the number of type - 1 widgets produced is A and that of type - 2 widgets is B, then we get the basic equation [A + B = 20,000] from the data in the question. From statement [1], we get [1.1 A + 1.06 B = 20,000]. This is enough to give us the value of B. Similarly from statement [2], we get A = 2B. This is enough to give us the value of B.

173. Anil's age was a prime number in 1996 and 1998. So Anil's age in these two yeas can be a pair of such numbers which are prime, and differ by 2. We have many such pairs - (3,5), (5, 7), (11, 13)….. And it is not possible to arrive at a unique answer. So the answer is [1].

174. Let Lakhiram's assets be worth Rs. X. In the case of compound interest, the period of reckoning or calculation of CI is very important. This information is given in statement (b). The annual CI rate is 10%, so the rate for 4 months is $(4/12)\,10 = (10/3)\%$. So the total Cl after one year, in terms of X, may be written as: $Cl = X[(1 + ((10/3)/100)]^3$, because in a year, there are 3 terms of 4 months. This interest is followed by a tax of 4% paid by him which ultimately fetches Lakhiram rs. 1500. This data us to find the value of X, so the answer is [4].

175. Although it is known that none of the lines are parallel to each other, there might be the case wherein all the lines have exactly one point of intersection, or eight lines with one point and the other eight with another point of intersection. Unless something about the relative arrangement of these lines is known, one cannot arrive ata definite answer. So the answer is [1].