

MAT MOCK Paper-1

Language Comprehension

Directions (Q. 1- 4): Refer to the following passage to answer these questions.

The National Institute of Oceanography (NIO) in Goa has developed a real-time reporting and Internet-accessible coastal sea-level monitoring system and it has been operational at Verem jetty in the Mandovi estuary in Goa since September 24, 2005. The gauge uses a cellular modem to put on the Internet real-time sea-level data, which can be accessed by authorised personnel. By using a cellular phone network, coastal sea-level changes are continuously updated on to a web-server. The sea-level gauge website can be made available to television channels to broadcast real-time visualisation of the coastal sea level, particularly during oceanogenic hazards such as storm surges or a tsunami. A network of such gauges along the coast and the islands that lie on either side of the mainland would provide data to disaster management agencies to disseminate warnings to coastal communities and beach tourism centres.

The gauge incorporates a bottom pressure transducer as the sensing element. The sea unit of the gauge, which houses the pressure transducer, is mounted within a cylindrical protective housing, which in turn is rigidly held within a mechanical structure. This structure is secured to a jetty. The gauge is powered by a battery, which is charged by solar panels. Battery, electronics, solar panels, and cellular modems are mounted on the top portion of this structure. The pressure sensor and the logger are continuously powered on, and their electrical current Consumption is 30 mA and 15 mA respectively.

The cellular modem consumes 15 mA and 250 mA during standby and data transmission modes, respectively. The pressure sensor located below the low-tide level measures the hydrostatic pressure of the overlying water layer. An indigenously designed and developed microprocessor based data logger interrogates the pressure transducer and acquires the pressure data at the rate of two samples a second. The acquired pressure data is averaged over an interval of five minutes to remove high-frequency wind-waves that are superimposed on the lower frequency tidal cycle.

This averaged data is recorded in a multimedia card. The measured water pressure is converted to water level using sea water density and acceleration owing to the earth's gravity. The water level so estimated is then referenced to chart datum (CD), which is the internationally accepted reference level below which the sea-level will not, fall.

The data received at the Internet server is presented in graphical format together with the predicted sea-level and the residual. The residual sea level (that is, the measured minus the predicted sea level) provides a clear indication of sea-level oscillation and a quantitative estimate of the anomalous behavior, the driving force for which could be atmospheric forcing (storm) or physical (tsunami).

A network of sea-level gauges along the Indian coastline and islands would also provide useful information to mariners for safe navigation in shallow coastal waters and contribute to various engineering projects associated with coastal zone management, besides dredging operations, port operations and manwater treaties with greater transparency. Among the various communication technologies used for real-time transmission of sea-level data are the wired telephone connections, VHF/UHF transceivers, satellite transmit terminals and cellular connectivity. Wired telephone connections are severely susceptible to loss of connectivity during natural disasters such as storm surges, primarily because of telephone line breakage. Communication via VHF/UHF transceivers is limited by line-of sight distance between transceivers and normally offer only point-to-point data transfer. Satellite communication via platform transmit terminals (PTTs) has wide coverages and, therefore, allows data reception from offshore platforms. However, data transfer speeds are limited. Further many satellites (for example, GOES, INSAT) permit data transfer only predefined time-slots, thereby inhibiting continuous data access. Technologies of data reporting via satellites have undergone a sea change recently in terms of frequency of reportage, data size, recurring costs and so forth. Broadband technology has been identified as one that can be used optimally for real-time reporting of data because of its inherent advantages such as a continuous two-day connection that allows high-speed data transfer and near real-time data reporting.

While satellite communication is expensive, wireless communication infrastructure and the ubiquity of cellular phones have made cellular communication affordable. Low initial and recurring costs are an important advantage of cellular communication. A simple and cost-effective methodology for real-time reporting of data is the cellular-based GPRS technology, which has been recently implemented at the NIO for real-time reporting of coastal sea level data.

1. According to the passage, which of the following statements is not true?

- a) Network of gauges along the coast and the islands would help disaster management agencies to disseminate warnings.
- b) Cellular-based GPRS technology is not a simple and cost effective method for real-time reporting of data.
- c) Disadvantage of wired telephone connection is the loss of connectivity during disasters due to line breakages.
- d) Data reporting via satellites has undergone changes in terms of frequency, data size, recurring cost, etc.

2. What is the outermost part of the sea unit of the gauge?

- a) Pressure transducer
- b) Mechanical structure
- c) Cylindrical protective housing
- d) Sensing element

3. What is the limitation of satellite communication via platform transmit terminals?

- a) Coverage
- b) Offshore platforms
- c) Data transfer speed
- d) None of these

4. Which one of the following relationships is correct as per the passage?

- a) Predicted sea level is a product of measured sea level and residual sea level.
- b) Predicted sea level is the sum of measured sea level and residual sea level.
- c) Predicted sea level is the sum of predicted sea level and measured sea level.
- d) Predicted sea level is obtained by dividing measured sea level and residual sea level.

Directions (Q. 5- 8): Refer to the following passage to answer these questions.

The World Trade Organisation (WTO) Ministerial Conference, which commenced in Hong Kong on December 13, 2005 adopted a declaration on December 18, 2005 after six days of acrimonious negotiations between developed and developing countries. Although initially there was a show of unity among developing countries especially on the issue of agriculture, which was reflected in the formation of the G-110, the final outcome of the Ministerial Declaration has been thoroughly anti-development. The Ministerial Declaration has not only failed to address substantially the concerns of developing countries but has actually paved the way for an eventual trade deal by the end of 2006, which is going to be severely detrimental to their interests. It is clear by now that the so-called "Development Round" launched in Doha in 2001 has been manipulated by developed countries, especially the United States and the members of the European Union, to push for further trade liberalisation in developing countries while they continue to protect their economies through high subsidies and non-tariff barriers. Far from redressing the asymmetries of the global trading system, the Doha round seems to be heading for another catastrophe for the developing world. The EU stuck to its intransigent position on the deadline of 2013 for the elimination of export subsidies and developing countries gave up their demand for an earlier

end date despite the initial collective efforts of the G-110. The gross inadequacy of this so-called “concession” can be understood from the fact that export subsidies comprise less than 2 per cent of the total farm subsidies in the developed world. There has been no concrete commitment on the reduction of domestic support other than export subsidies. The EU can continue to subsidise agriculture to the tune of 55 billion euros a year. The EU budget adopted recently ensures that nothing can be touched in the agriculture budget till at least 2013. The US budget reconciliation process and the final vote in the Congress are set to extend domestic support to agriculture and counter-cyclical support to commodities up to around 2011. Even in the case of cotton, the agreement to eliminate subsidies by 2006 is restricted to export subsidies only and does not include other forms of domestic support. The US refused to give duty-free access to exports from Least-Developed Countries (LDCs) for 99.9 per cent of product lines and the final agreement was on 97 per cent of them, which would enable the US and Japan to deny market access to LDCs in product lines such as rice and textiles. Much of the Aid for Trade for LDCs, which is being showcased by developed countries as a “development package”, is disguised in conditional loan packages that are contingent upon further opening up of their markets. India’s prime interest in agriculture was to ensure the protection of its small and marginal farmers from the onslaught of artificially low-priced imports or threats thereof. The proposals for agricultural tariff cuts, which are already on the table, are quite ambitious and the G-20 has already committed itself to undertake cuts to the extent of two-thirds of the level applicable to developed countries. Moreover, India has 100 per cent tariff lines bound in agriculture with the difference in the applied level and the bound level not very marked in many lines. In this context, the systemic problem face by India's small and marginal farmers practising subsistence agriculture will only get aggravated as a result of the impending tariff cuts that have been agreed upon. The government claims that the right to designate a number of agricultural product lines as special products based upon the consideration of food and livelihood security and to establish a special safeguard mechanism based on import quantity and price triggers, which have been mentioned in the Ministerial Text, adequately addresses the concerns of Indian farmers. The claim is questionable since the nature as well as the extent of protection under the category of special products remains restricted and the special safeguard mechanism, admittedly, is a measure to deal with an emergency and is of “a temporary nature”. Therefore, seen in the light of the insignificant reductions in domestic farm subsidies by developed countries, tariff reduction commitments by developing countries seem to be totally unjustifiable. Developing countries have also agreed on the Swiss formula for tariff cuts under Non-Agricultural Market Access (NAMA). Although the coefficients will be negotiated later, it is unlikely that developed countries will agree upon sufficiently large coefficients for the formula that would ensure adequate policy space for developing countries in future to facilitate development of different sectors of their industries. The Ministerial Text’s ritual references to “less than full reciprocity” and “special and differential treatment” fails to conceal the fact that the flexibilities provided by the July framework regarding the nature of the tariff reduction formula, product coverage, the extent of binding and the depth of cuts have been done away with. Moreover, no concrete commitment has been obtained in the Ministerial Text for the removal of the Non-Tariff barriers by developed countries, which is their principal mode of protection, despite developing countries making such major concessions on industrial tariff cuts. The fact of the matter is that developing countries have committed themselves to cuts in both agricultural and industrial tariffs, without getting anything substantial in return from developed countries. And India has facilitated the adoption of this bad deal in the backdrop of an acute crisis faced by Indian agriculture. Unfortunately, developing countries have lost the opportunity to rework fundamentally the iniquitous Agreement on Agriculture and protect the domestic policy space vis-à-vis industrial protection by developing countries, which could have been achieved by galvanising the unity of the G-110.

5. What was/were the flexibility/flexibilities envisaged by the July framework?

- a) Depth of cuts
- b) Product coverage

- c) Tariff reduction formula
- d) All of the above

6. Which one of the following statements is not correct as per the passage?

- a) Aid which is given for the Least Developed Countries (LDCs) by the developed countries in the form of 'developed package' is conditioned upon further opening of their market.
- b) Reduction in the domestic farm subsidies by the developed countries is insignificant and the commitment made by the developing countries for tariff reduction is unjustifiable.
- c) India's main interest in agriculture is to protect its small and marginal farmers from the onslaught of artificially low-priced imports or threats of such nature.
- d) Developed countries have given commitment to the Ministerial Text on the removal of Non-Tariff barriers.

7. Which claim of the Indian Government is questionable?

- a) Right to designate agriculture product lines as special products considering food and livelihood security.
- b) India has facilitated the adoption of a beneficial deal for agriculture at WTO.
- c) Formation of G-110 proves unity among developing countries.
- d) Developing countries can negotiate large coefficient on the Swiss formula for tariff cuts.

8. Why is it that the imbalances of the global trading system appear to be catastrophic?

- a) EU has not moved away from its declared position
- b) US refused to give duty free access to exports from LDCs
- c) The collective efforts of G-110 failed
- d) All of the above

Directions (Q. 9- 12): Refer to the following passage to answer these questions.

It is easy to accept Freud as an applied scientist, and, indeed he is widely regarded as the twentieth century's master clinician. However, in viewing Marx as an applied social scientist, the stance needed is that of a Machiavellian operationalism. The objective is neither to bury nor to praise him. The assumption is simply that he is better understood for being understood as an applied sociologist. This is in part the clear implication of Marx's Theses on Feurbach, which culminate in the resounding 11th thesis: "The philosophers have only interpreted the world in different ways; the point, however, is to change it". This would seem to be the tacit creed of applied scientists every-where. Marx was no Faustian, concerned solely with understanding society, but a Promethean who sought to understand it well enough to influence and to change it. He was centrally concerned with the social problems of a lay group, the proletariat, and there can be little doubt that his work is motivated by an effort to reduce, their suffering, as he saw it. His diagnosis was that their increasing misery and alienation engendered endemic class struggle; his prognosis claimed that this would culminate in revolution; his therapeutic prescription was class consciousness and active struggle. Here, as in assessing Durkheim or Freud, the issue is not whether this analysis is empirically correct or scientifically adequate. Furthermore, whether or not this formulation seems to eviscerate Marx's revolutionary core, as critics on the left may charge, or whether the formulation provides Marx with a new veneer of academic respectability, as critics on the right may allege, is entirely irrelevant from the present standpoint. Insofar as Marx's or any other social scientist's work conforms to a generalised model of applied social science, insofar as it is professionally oriented to the values and social problems of laymen in his society, he may be treated as an applied social scientist. Despite Durkheim's intellectualistic proclivities and rationalistic pathos, he was too much the product of European turbulence to turn his back on the travail of

his culture. "Why strive for knowledge of reality, if this knowledge cannot aid us in life", he asked. "Social science", he said, "can provide us with rules of action for the future". Durkheim, like Marx, conceived of science as an agency of social action, and like him was professionally oriented to the values and problems of laymen in his society. Unless one sees that Durkheim was in some part an applied social scientist, it is impossible to understand why he concludes his monumental study of Suicide with a chapter on "Practical Consequences", and why, in the Division of Labour, he proposes a specific remedy for anomie. Durkheim is today widely regarded as a model of theoretic and methodologic sophistication, and is thus usually seen only in his capacity as a pure social scientist. Surely this is an incomplete view of the man who regarded the practical effectiveness of a science as its principal justification. To be more fully understood, Durkheim also needs to be seen as an applied sociologist. His interest in religious beliefs and organisation, in crime and penology, in educational methods and organisation, in suicide and anomie, are not casually chosen problem areas. Nor did he select them only because they provided occasions for the development of his theoretical orientation. These areas were in his time, as they are today, problems of indigenous interest to applied sociologist in Western Society, precisely because of their practical significance.

9. Which of the following best describes the author's conception of an applied social scientist?

- a) A professional who listens to people's problems
- b) A student of society
- c) A professional who seeks social action and change
- d) A proponent of class struggle

10. According to the author, which of the following did Marx and Durkheim have in common?

- a) A belief in the importance of class struggle
- b) An interest in penology
- c) A desire to create a system of social organization
- d) Regard for the practical application of science

11. It may be inferred from the passage that the applied social scientist might be interested in all of the following subjects except

- a) The theory of mechanism
- b) Rehabilitation of juvenile delinquents
- c) How to make workers more efficient
- d) Reduction of social tensions

12. Which of the following best summarises the author's main point?

- a) Marx and Durkheim were similar in their ideas.
- b) Philosophers, among others, who are regarded as theoreticians can also be regarded as empiricists.
- c) Freud, Marx and Durkheim were all social scientists.
- d) Marx and Durkheim were applied social scientists because they were concerned with the solution of social problems.

Directions (Q. 13- 16): Refer to the following passage to answer these questions.

Unemployment is an important index of economic slack and lost output, but it is much more than that. For the unemployed person, it is often a damaging affront to human dignity and sometimes a catastrophic blow to family life. Nor is this cost distributed in proportion to ability to bear it. It falls most heavily on the young, the semiskilled and

unskilled, the black person, the older worker, and the underemployed person in a low income rural area who is denied the option of securing more rewarding urban employment.

The concentrated incidence of unemployment among specific groups in the population means far greater costs to society that can be measured simply in hours of involuntary idleness or dollars of income lost. The extra costs include disruption of the careers of young people, increased juvenile delinquency, and perpetuation of conditions which breed racial discrimination in employment and otherwise deny equality of opportunity. There is another and more subtle cost. The social and economic strains of prolonged underutilisation create strong pressures for cost-increasing solutions. On the side of labour, prolonged high unemployment leads to "share-the-work" pressures for shorter hours, intensifies resistance to technological change and to rationalisation of work rules, and, in general, increases incentives for restrictive and inefficient measures to protect existing jobs. On the side of business, the weakness of markets leads to attempts to raise prices to cover high average overhead costs and to pressures for protection against foreign and domestic competition. On the side of agriculture, higher prices are necessary to achieve income objectives when urban and industrial demand for foods and fibers is depressed and lack of opportunities for jobs and higher incomes in industry keep people on the farm. In all these cases, the problems are real and the claims understandable. But the solutions suggested raise costs and promote inefficiency. By no means the least of the advantages of full utilisation will be a diminution of these pressures. They will be weaker, and they can be more firmly resisted in good conscience, when markets are generally strong and job opportunities are plentiful. The demand for labour is derived from the demand for the goods and services which labour participates in producing. Thus, unemployment will be reduced to 4 per cent of the labour force only when the demand for the myriad of goods and services—automobiles, clothing, food, haircuts, electric generators, highways, and so on—is sufficiently great in total to require the productive efforts of 96 per cent of the civilian labour force. Although, many goods are initially produced as materials or components to meet demands related to the further production of other goods, all goods (and services) are ultimately destined to satisfy demands that can, for convenience, be classified into four categories; consumer demand, business demand for new plants and machinery and for additions to inventories, net export demand of foreign buyers, and demand of government units, federal, state and local. Thus gross national product (GNP), our total output, is the sum of four major components of expenditure; personnel consumption expenditures, gross private domestic investment, net exports and government purchases of goods and services. The primary line of attack on the problem of unemployment must be through measures which will expand one or more of these components of demand. Once a satisfactory level of employment has been achieved in a growing economy, economic stability requires the maintenance of a continuing balance between growing productive capacity and growing demand. Action to expand demand is called for not only when demand actually declines and recession appears but even when the rate of growth of demand falls short of the rate of growth of capacity.

13. According to the passage, unemployment is an index of

- a) Overutilisation of capacity
- b) Diminished resources
- c) Economic slack and lost output
- d) The employment rate

14. Serious unemployment leads labour groups to demand

- a) More jobs by having everyone work shorter hours
- b) "No fire" policies
- c) Higher wages to those employed
- d) Cost-cutting solutions

15. According to the passage, a typical business reaction to a recession is to press for

- a) Higher unemployment in-surance
- b) Government action
- c) Protection against imports
- d) Restrictive business practices

16. The demand for labour is

- a) A derived demand
- b) About 4 per cent of the total work force
- c) Declining
- d) Dependent upon technology

Directions (17- 20): Each of these questions has an underlined part. Choose the option that best replaces the underlined part. Answer option (2) repeats the original.

17. The political masters of the health care system have not listened to professional health planners because it has not been profitable for them to do that thing.

- a) Has not been profitable for them to do so.
- b) Has not been profitable for them to do that thing.
- c) Has been unprofitable for them to do that thing.
- d) Has been unprofitable for them to do so.

18. Most bacterial population grown in controlled conditions will quickly expand to limit the food supply, produce toxic waste products that inhibit further growth, and reached the equilibrium state within a relatively short time.

- a) Will have produced toxic waste products that inhibit further growth and also will reach an equilibrium state within a relatively short time.
- b) Produce toxic waste products that inhibit further growth, and reached the equilibrium state within a relatively short time.
- c) Will then produce a toxic waste product that inhibits further growth and thus reached an equilibrium state in a very short time.
- d) Produce toxic waste products that inhibit further growth and reach equilibrium .

19. It could be argued that the most significant virtue of a popular democracy is not the right to participate in the selection of leaders, but rather that it affirms our importance in the scheme of things.

- a) But rather is affirmation of
- b) but rather that it affirms
- c) but rather it's affirmation in terms of
- d) but instead of that, its affirming that

20. Long popular among the connoisseurs of Indian music, Ravi Shankar first impressed western listeners with his phenomenal technical virtuosity but they soon came to appreciate his music as an artful expression of an older culture's musical insight.

- a) but it soon occurred that they appreciated his artful music as an
- b) but they soon came to appreciate his music as an artful
- c) but soon this was surpassed by an appreciation of it as an artful
- d) which was soon surpassed by an even deeper appreciation of it as an artful

Directions (21- 24): Fill in the blanks.

21. Professionals focus their _____ on fulfilling their responsibilities and achieving results, not on _____ a particular image.

- a) leadership - attributing
- b) planning - devising
- c) abilities - contributing
- d) energies - portraying

22. When you are living with your _____ values and principles, you can be straightforward, honest and _____

- a) inherited-distinct
- b) core-up-front
- c) innate - durable
- d) cultural - perceptive

23. In the role of a counsellor, you are an authority figure whose objective is to _____ attentively and sensitively to employees who _____ you with their feelings.

- a) manage - direct
- b) projects - focus
- c) listen - trust
- d) concentrate - believe

24. If a junior executive neglects his professional development and _____ education, he can easily and quickly become obsolete in a world changing at _____ rates.

- a) higher - vulnerable
- b) management - voluminous
- c) better - supreme
- d) continuing - dizzying

Directions (Q. 25- 28): Each of these questions has a set of four sentences marked A to D. Identify the arrangement of these sentences which makes a logical sequence.

25. (A) It marks off the beginning mathematics from what went before.

(B) Ever since this discovery, abstraction has been a major theme in the development of mathematics, as those interested in the field have come up with ideas further and further divorced from their basis in the real world, and then sought ways to bring them back to tell us things about the real world which we might otherwise not have known.

(C) The discoverer of abstraction was the person who first realized that numbers are independent of the objects being counted, that two oranges and two apples (for instance) share a property, 'twoness', which is independent of what kinds of fruit they are.

(D) Abstraction, the action of divorcing properties of physical objects from the objects themselves, is a fundamental concept, perhaps the most fundamental concept, in mathematics.

- a) CBAD
- b) DBCA
- c) DACB
- d) DABC

26. (A) The accommodation theory, in linguistics, starts from the premise that speech accommodation takes place when people modify their speech so that it conforms more with the way their conversational partners speaks.

(B) For example, the speed at which people talks, the length of both pauses and utterances, the kind of vocabulary and syntax used, as well as intonation, voice pitch and pronunciation are all subject to the accommodation process.

(C) A wide range of subtle adaptations have been observed, which tend to occur more or less unconsciously.

(D) This kind of convergence is by no means an automatic feature of all conversations, and we can discern certain social contexts in which accommodation can be predicted.

- a) BDAC
- b) DABC
- c) ACBD
- d) ABCD

27. (A) Fossil evidence suggests that the mammals underwent adaptive radiation to produce the range of mammal types extant today.

(B) Adaptive radiation, in the life sciences, refers to the differentiation (or anagenesis) of one or a few species into many to fill a large number of related ecological niches by adaptation.

(C) Thus the first bird species may have given rise to many more bird species by adaptive radiation.

(D) Typically, a species adapts to colonize a new habitat and, this adaptation opening up a new range of niches, adapts again to fill the new niches which are presented.

- a) CBAD
- b) BDCA
- c) BADC
- d) CBDA

28. (A) When the future date arrives, the bear expects to buy in at a lower price deliver the stock that had been sold under the future contract at a higher price.

(B) A market in which prices are falling or are expected to fall is called by economists a bear market.

(C) Likewise, the term bear can be applied to a person who expects stock prices to fall and sells stock that he or she does not have for delivery at a future date.

(D) It is a designation commonly used in securities markets and commodity markets and is the opposite of a bull market.

- a) BDCA
- b) BCAD
- c) BACD
- d) ACBD

Directions (Qs. 29- 32): In each of these questions, a part of the sentence has been underlined. Find the best way of writing the underlined part of the sentence.

29. To prepare himself, he subjected himself to two weeks of total abstinence and intensive training in the open fields of Panipat, climbing the hills nearby 30 times, spend nights in the open and to test to see how long he could hold out without food.

- a) spending nights in the open by climbing the hills nearby 30 times and tested for seeing
- b) climbed the hills nearby 30 times, spending nights in the open and tested to see
- c) climbing the hills nearby 30 times, spend nights in the open and to test to see
- d) climbing the hills nearby 30 times, spending nights in the open and testing to see

30. In rural India, many mango trees are planted at the end of a village or at the border of a district, for providing excellent shade during summer, and shelter during winter.

- a) in order to provide excellent shade in summer, and shelter in winter.
- b) to provide excellent shade in summer, and shelter in winter.
- c) for providing excellent shade during summer, and shelter during winter.
- d) so as to excellently provide shade in summer, and shelter in winter.

31. Mental intelligence and common sense are essential for outstanding achievement because they involve your natural ability to comprehend difficult concepts quicker and to analyse them clearly and incisively.

- a) your natural ability of comprehension of difficult concepts quickly and clear and incisive analysis of it. b) one's natural ability for the comprehension of difficult concepts quickly and analysing them clearly and incisively.
- c) your natural ability to comprehend difficult concepts quicker and to analyse them clearly and incisively.
- d) one's natural ability to comprehend difficult concepts quickly and to analyse them clearly and incisively.

32. Panchayati Raj institutions are now entrusted upon the execution of all rural upliftment schemes and programs in India.

- a) entrusted with the execution of all rural upliftment schemes and programs
- b) entrusted with the execution of all rural uplift schemes and programs
- c) entrusted upon the execution of all rural upliftment schemes and programs
- d) entrusted within the execution for all rural uplift programs and schemes

Directions (Qs. 33- 35): A sentence has been divided into four parts. Choose the part that has an error.

33. a) In the past, behind the immediate popularity
b) of the phonograph is the entire electric
c) implosion that gave such new stress and
d) importance to actual speech rhythms in music, poetry, and dance alike

34. a) Science really begins when general principles
b) have to be put to the test of fact
c) and when practical problems and theoretical relations
d) of relevant factors is used to manipulate reality in human action

35. a) If all cells are conceived primarily as a receptacles
b) of the same genetic formula - not only all

- c) the individuals, but all the cells of
- d) the same individuals - what are they but the cancerous extension of this base formula?

Directions (Qs. 36- 38): Rearrange the following letters and make a meaningful word which is opposite to the answers.

36. TSTHNAIE

- a) dental
- b) decorte
- c) careful
- d) willing

37. NIETEMARG

- a) conscience
- b) terminate
- c) confrontation
- d) considerate

38. TENALSGERI

- a) Comfortable
- b) combustible
- c) confess
- d) specialist

Directions (Qs. 39- 40): Fill in the blanks.

39. Jayashree was habitually so docile and that her friends could not understand her sudden her employers.

- a) accommodating, outburst against
- b) calm, anger for
- c) truculent, virulence toward
- d) quiet, annoyance toward

40. Carried away by the effect of the experimental medication, the patient his desire to continue as a subject for as long as he could.

- a) supplementary, announced
- b) smoothening, proclaimed
- c) satisfying, repeated
- d) salutary, reiterated

Intelligence and Critical Reasoning

Directions (Qs. 41- 43): Each of these questions has a statement followed by two conclusions I and II. Consider the statement and the following conclusions. Decide which of the conclusions follows from the statement. Mark answers as

—

- a) if conclusion I follows
- b) if conclusion II follows
- c) if neither conclusion follows
- d) if both conclusions follow

41. Statement: India has great potential for consumer products.

Conclusions:

- I. Inflation is curbing demand for consumer products.
- II. A very large population of the country has a great appetite for consumer products.

42. Statement: Introduction of computers and networking revolutionized banking services.

Conclusions:

- I. Computers have reduced paperwork to a very large extent
- II. All banking functions can be operated and viewed easily on computers.

43. Statement: Productivity of Indian agriculture is very low.

Conclusions:

- I. Indian agriculture is largely dependent on timely rains
- II. Indian farmers have not introduced latest technology into the system

Directions (Qs. 44- 46): Read the following information to answer these questions.

- I. P, Q, R, S, T and U are the six members of a family
- II. There is one Doctor, one Advocate, one Engineer, one Teacher, one Student and one Housewife among them.
- III. There are two married couples in the family.
- IV. U, who is an Advocate, is father of P.
- V. Q is a Teacher and is mother of R.
- VI. S is grandmother of R and is a Housewife.
- VII. T is the father of U and is a Doctor
- VIII. R is the brother of P.

44. Which of the following statements is definitely true?

- a) U is father of the Engineer
- b) P is the Engineer
- c) T is father of the Teacher
- d) R is brother of the Student

45. How many female members are there in the family?

- a) Three only
- b) Two or three
- c) Two only
- d) Three or four

46. How is P related to S?

- a) Either grand daughter or grandson
- b) Grand mother
- c) Grand son
- d) Grand daughter

Directions (Qs. 47- 49): Read the following information to answer these questions.

In a family, there are 10 members, G and N are a married couple while K is the husband of X. In this family, there are four housewives and four working husbands while other members are non - working. The husband in the last generation is a doctor and the husband of S is a teacher. L is a married woman but her husband is not P. Q and K are associated with the profession of engineer and accountant but K is not and accountant. P is the brother of T and both have a sister O. N is the daughter of L and X is the mother of P.

47. The family consists of how many generations?

- a) 6
- b) 1
- c) 4
- d) 2

48. Who is the husband of S?

- a) T
- b) K
- c) L
- d) P

49. Which of the following statements is not true?

- a) Husband of X is an engineer.
- b) Second generation members are S, P, T and O.
- c) The number of female members in the family is 5.
- d) The accountant and his wife belong to the 4th generation.

Directions (Qs. 50- 52): Read the following information to answer these questions.

- I. $P \Psi Q$ means P is mother of Q.
- II. $P \in Q$ means P is sister of Q.
- III. $P \$ Q$ means P is father of Q.
- IV. $P \# Q$ means P is brother of Q.

50. Which of the following means D is definitely daughter of A?

- a) $A \$ B \# C \# D$
- b) $C \Psi A \$ D \in B$
- c) $A \Psi C \$ B \in D$
- d) $B \Psi A \$ C \# D$

51. Which of the following means R is brother of T?

- a) R Ψ S # U \$ T
- b) U Ψ R # S # T
- c) U Ψ R ϵ S # T
- d) K # R \$ S ϵ T

52. Which of the following means A is nephew of C?

- a) D # C \$ B # A ϵ E
- b) A # B \$ D ϵ E \$ C
- c) C # D \$ B # A \$ E
- d) B Ψ E # C \$ E ϵ A

Directions (Qs. 53- 55): Read the following information to answer these questions.

Six members of a family G, H, I, J, K and L are Accountant, Clerk, Lawyer, Jeweller, Doctor and Engineer, but not in the same order.

- I. Doctor is the grandfather of L who is an Accountant.
- II. Clerk J is married to G.
- III. I, who is a Jeweller, is married to the Lawyer.
- IV. H is the mother of L and K.
- V. There are two married couples in the family.

53. What is the profession of K?

- a) Doctor
- b) Clerk
- c) Engineer
- d) Accountant

54. How many male members are there in the family?

- a) Two
- b) Three
- c) Four
- d) Cannot be determined

55. How is G related to K?

- a) Wife
- b) Father
- c) Grandmother
- d) Grandfather

Directions (56- 58): These questions are based on the statements given below.

Madhu and Shivani are good in Dramatics and Computer Science. Asha and Madhu are good in Computer Science and physics. Asha, Pratibha and Namita are good in physics and History. Namita and Asha are good in Physics and Mathematics. Pratibha and Shivani are good in History and Dramatics.

56. Who is good in Physics, History and Mathematics, but not in Computer Science?

- a) Pratibha
- b) Asha
- c) Madhu
- d) Namita

57. Who is good in History, Physics, Computer Science and Mathematics?

- a) Namita
- b) Asha
- c) Madhu
- d) Pratibha

58. Who is good in Physics, History and Dramatics?

- a) Pratibha
- b) Madhu
- c) Shivani
- d) Asha

Directions (59- 61): Read the following information to answer these questions.

Four friends A, B, C and D are Studying together in class 10+2. A and B are good in Hindi but poor in English. A and C are good in Sanskrit but poor in Geography. D and B are good in Maths as well as Sanskrit.

59. Who amongst the following friends is not good in Maths but good in Hindi ?

- a) C
- b) A
- c) D
- d) B

60. Which of the following pairs of friends is good both in English and Sanskrit ?

- a) A and D
- b) A and C
- c) C and D
- d) D and B

61. Which one of the following friends is good in Sanskrit but poor in Geography?

- a) A
- b) D
- c) C
- d) B

Directions (62- 64): Read the given information to answer the following questions.

Mohan Dey is undecided which four movies to see this week. He is considering a spy thriller, a murder mystery, a comedy and a science fiction. The movies will be shown by TV channels STAR, SONY, B4U and HBO, not necessarily in that order, and telecast on Tuesday, Wednesday, Saturday and Sunday, not necessarily in that order.

The movies by STAR will be shown on Sunday. The spy thriller will be shown on Tuesday. The science fiction movies are shown by B4U and not telecast on Saturday. The comedy is shown by HBO channel.

62. On Wednesday Mohan Dey can watch

- a) the science fiction movie
- b) the murder mystery
- c) the spy thriller
- d) the comedy

63. The TV channel SONY will telecast

- a) a comedy on Saturday
- b) a science fiction movie on Saturday
- c) a murder mystery on Tuesday
- d) a spy thriller on Tuesday

64. Mohan Dey watched movies on two channels whose names come first and third in the alphabetical order he did not watch.

- a) the movie shown on Wednesday
- b) the murder mystery
- c) the science fiction movie
- d) the movie shown on Saturday

Directions (65- 67): Read the following information to answer these questions.

Six books are kept one on top of the other. The History book is just above Accounting. The Maths book is between Punjabi and Urdu. English is between History and Punjabi.

65. Which book is between the Math and English books?

- a) Accountancy
- b) History
- c) Urdu
- d) None of these

66. Which book is at the bottom?

- a) Accountancy
- b) Punjabi
- c) Urdu
- d) Cannot be determined

67. Which book is at the top?

- a) Punjabi
- b) Urdu
- c) Accountancy
- d) Cannot be determined

Directions (68- 70): In each of these questions, two statements A and B are given followed by two conclusions I and II. Consider both the statements to be true even if they seem to be at variance from commonly known facts. Decide which of the given conclusions is/are definitely drawn from the given statements.

Mark answer as

- a) if only II follows.
- b) if only I follows.
- c) if neither I nor II follows.
- d) if both I and II follow.

68. Statements:

- A. If there is shortage in the production of onions, the price of onions will go up.
- B. Price of onions has gone up.

Conclusions:

- I. There is shortage in the production of onions.
- II. Onions were exported.

69. Statements:

- A. If all players play to their full potential, we will win the match.
- B. We have won the match.

Conclusions:

- I. All players played to their full potential.
- II. Some players did not play to their full potential.

70. Statements:

- A. Some businessmen are rich.
- B. Soman is rich.

Conclusions :

- I. Soman is a businessman.
- II. Soman has big farm.

71. An application was received by inward clerk in the afternoon of a week day. Next day, he forwarded it to the table of the senior clerk, who was on leave that day. The senior clerk put up the application to the desk officer next day in the evening. The desk officer studied the application and disposed off the matter on the same day, ie Friday. The application was received by the inward clerk on

- a) Monday
- b) Wednesday
- c) Tuesday
- d) Previous week's Saturday

72. In a queue of children, Kashish is fifth from the left and Mona is sixth from the right. When they interchange their places among themselves, Kashish becomes thirteenth from the left. Then, what will be Mona's position from the right?

- a) 4th
- b) 14th
- c) 8th
- d) 15th

73. If the numbers from 1 to 45 which are exactly divisible by 3 are arranged in ascending order, minimum number being on the top, then which number would come at the ninth place from the top?

- a) 18
- b) 24
- c) 21
- d) 27

74. Which letter should be the ninth letter to the left of the ninth letter from the right, if the first half of the alphabets of English are reversed?

- a) D
- b) F
- c) E
- d) I

75. In a family, a couple has a son and a daughter. The age of the father is three times that of his daughter and the age of the son is half of his mother. The wife is 9 years younger to her husband and the brother is seven years older to his sister. What is the age of the mother?

- a) 40 years
- b) 50 years
- c) 45 years
- d) 60 year

Directions for question 76 to 80:

In each of these questions, various terms of a series are given with one term missing as shown by (?). Choose the missing term.

76. QPO, SRQ, UTS, WVU, (?)

- a) XVZ
- b) YXW

- c) ZYA
- d) VWX

77. 19, 2, 38, 3, 114, 4, (?)

- a) 228
- b) 352
- c) 256
- d) 456

78. YEB, WFD, UHG, SKI, (?)

- a) QOL
- b) TOL
- c) QGL
- d) QNL

79. AZ, CX, FU, (?)

- a) IR
- b) JQ
- c) IV
- d) KP

80. 2Z5, 7Y7, 14X9, 23W11, 34V13, (?)

- a) 27U24
- b) 45U15
- c) 47U15
- d) 27V14

Data Analysis and Sufficiency

Directions (Q. 81- 84): Refer to the following Tables (A) and (B) to answer these questions.

Table (A): Production of Inorganic Chemicals

Description	Production (tonnes)	
	2002-03	2003-04
Bleaching Powder	60, 043	51,434
Aluminium Chloride	31, 903	31,176
Sodium Tripoly Phosphate	60, 639	60,041
Sodium Bi-carbonate	61,615	72,895

Calcium Carbonate	143,980	142,125
Chlorine and Liquid Chlorine	717,220	718,530
Calcium Carbide	83,445	83,388
Titanium Oxide	30,422	19,624

Table (B): Production of Organic Chemicals

Description	Production (tonnes)	
	2003-04	2002-03
Ethylene Glycol	327,387	454,371
Formaldehyde	140,384	145,590
Fatty Acids	99,320	113,851
Aniline	44,273	39,340
Acetone	45,657	44,500
Acetic Acid	208,921	212,319
Pthalic Anhydride	127,318	125,959
Benzene	329,000	373,000
Xylenes	147,288	156,000
Phenol	69,281	66,210

81. The ratio of the number of organic chemicals for which the production has fallen to the number of inorganic chemicals for which production has fallen is

- a) 2 : 3
- b) 3 : 2
- c) 6 : 5
- d) 1 : 1

82. Of all chemicals shown, the highest percentage increase in production has been exhibited for

- a) Aniline
- b) Ethylene glycol
- c) Fatty acids
- d) Sodium bicarbonate

83. The chemical, whose production in 2003 - 04 as a proportion of its total production for the two-year period was the lowest, is

- a) Aniline
- b) Ethylene glycol
- c) Fatty acids
- d) None of these

84. If productive volatility is defined as the percentage change in production, and it is known that any chemical whose productive volatility is greater than 5% is classified as highly volatile, then how many chemicals are not highly volatile (amongst organic chemicals)

- a) 6
- b) 5
- c) 4
- d) None of these

Directions (Q. 85- 88): The graph below gives the data of the number of employees working in a company, the total expenditures of the company and the total salary paid to the employees by the company over the years. Study the graph carefully to answer these questions.



85. What was the percentage increase in the number of employees of the company from 1995- 96 to 1997- 98?

- a) 21-33%
- b) 25%
- c) 33-33%
- d) 16-67%

86. What was the average number of employees who worked in the company over the given years?

- a) 185
- b) 195
- c) 235
- d) 175

87. What was the difference between the average of the total salaries paid by the company over the given years and the total salary paid by the company in the year 1997- 98?

- a) Rs 2,00,000
- b) Rs 2,50,000
- c) Rs 4,00,000
- d) Rs 1,50,000

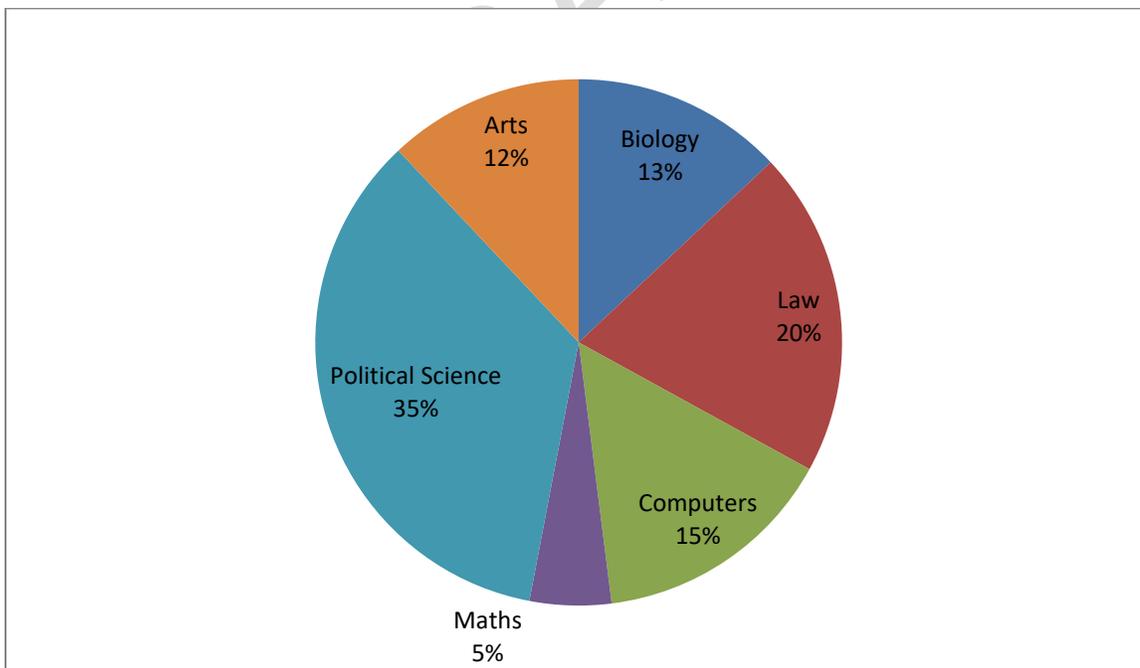
88. The total expenditure of the company in 1995-96 was approximately what per cent of the average of the total expenditures of the company over the given years?

- a) 82%
- b) 79%
- c) 76%
- d) 87%

Directions (Qs. 89- 92): Study the following pie-charts carefully to answer these questions.

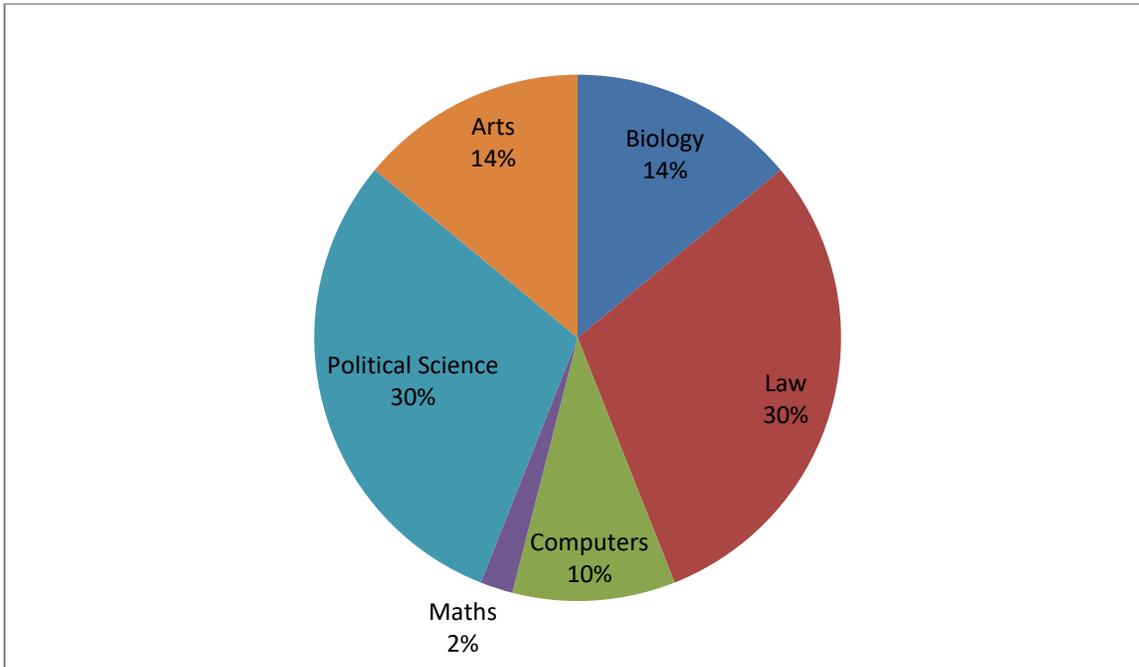
Percentage of Students in a College, Studying Various Subjects and the Percentage of Girls out of these Total students: 1800 (1200 girls + 600 boys)

Percentage of students in various subjects



Total Girls: 1200

Percentage of students in various subjects



89. The number of girls studying art in college is

- a) 242
- b) 168
- c) 120
- d) 276

90. For which subject is the number of boy the minimum?

- a) Law
- b) Biology
- c) Arts
- d) Maths

91. For Political Science, what is the respective ratio of boys and girls?

- a) 4 : 3
- b) 3 : 4
- c) 2 : 3
- d) 4 : 5

92. The number of girls studying art is what per cent more than the number of boys studying art?

- a) 170%
- b) 150%

- c) 80%
- d) 250%

Directions for question 93 to 97: In each of these problems, two statements containing certain data follow a question. Determine whether the data provided by the statements are sufficient to answer the given question. Choose the correct answer based upon the statements' data, your knowledge of mathematics, and your familiarity with everyday facts.

Mark your answer as

1. if statement (A) by itself is sufficient to answer the given question, but statement (B) by itself is not;
2. if statements (A) and (B) taken together are sufficient to answer the given question, even though neither statement by itself is sufficient;
3. if statement (B) by itself is sufficient to answer the given question, but statement (A) by itself is not;
4. if either statement by itself is sufficient to answer the given question;

93. Does rectangle A have a greater perimeter than rectangle B?

- i. The length of a side of rectangle A is twice the length of a side of rectangle B.
- ii. The area of rectangle A is twice the area of rectangle B.

- a) 1
- b) 2
- c) 3
- d) 4

94. If there is an average of 250 words on each page, then how many pages can Michael read in an hour?

1. There is an average of 25 ten-word lines on each page.
2. Michael can read 30 ten-word lines per minute.

- a) 1
- b) 2
- c) 3
- d) 4

95. If he did not stop along the way, then what speed did Bill average on his 3-hour trip?

1. He travelled a total of 120 miles.
2. He travelled half the distance at 30 miles per hour and half the distance at 60 miles per hour

- a) 1
- b) 2
- c) 3
- d) 4

96. On a certain construction crew, there are 3 carpenters for every 2 painters. What per cent of the entire crew are carpenters or painters?

- A. Eighteen per cent of the crew are carpenters.
- B. Twelve per cent of the crew are painters.

- a) 1
- b) 2
- c) 3
- d) 4

97. Are at least 30 per cent of the people in City H who are 30 years old or older bilingual?

- A. In City H, 30 per cent of the population is at least 30 years old.
- B. In City H, of the population 30 years old or older, 18 per cent of the women and 17 per cent of the men are bilingual.

- a) 1
- b) 2
- c) 3
- d) 4

Directions for question 98 to 102: The forecasts of the World and Asian energy demand for the years 2005, 2010 and 2020 are given in the following table. The demand is given million barrels per day crude oil equivalent.

	2005		2010		2020	
	World	Asia	World	Asia	World	Asia
Petroleum	56.0	8.0	86.0	11.5	108.0	18.0
Natural Gas	38.0	1.5	67.0	2.5	96.0	4.5
Solid fuels	46.0	6.0	54.0	13.0	67.0	15.4
Nuclear	8.0	2.0	9.0	4.8	12.0	5.5
Hydropower	12.0	1.5	14.0	2.2	17.0	4.6
Total	160.0	19.0	230.0	34.0	300.0	48.0

98. Which is the fuel whose proportion in the total energy demand will increase continuously over the period 2005-2020 in Asia?

- a) Natural Gas
- b) Both Natural Gas and Hydropower
- c) Hydropower
- d) Nuclear

99. Which is the fuel whose proportion in the total energy demand will remain unaltered from 2005 to 2010 in Asia?

- a) Petroleum
- b) Solid fuels
- c) Natural Gas
- d) Nuclear

100. For which source of energy is the demand in 2020 as a ratio of demand in 2005 in the Asian region the greatest?

- a) Natural Gas
- b) Nuclear
- c) Solid fuels
- d) Hydropower

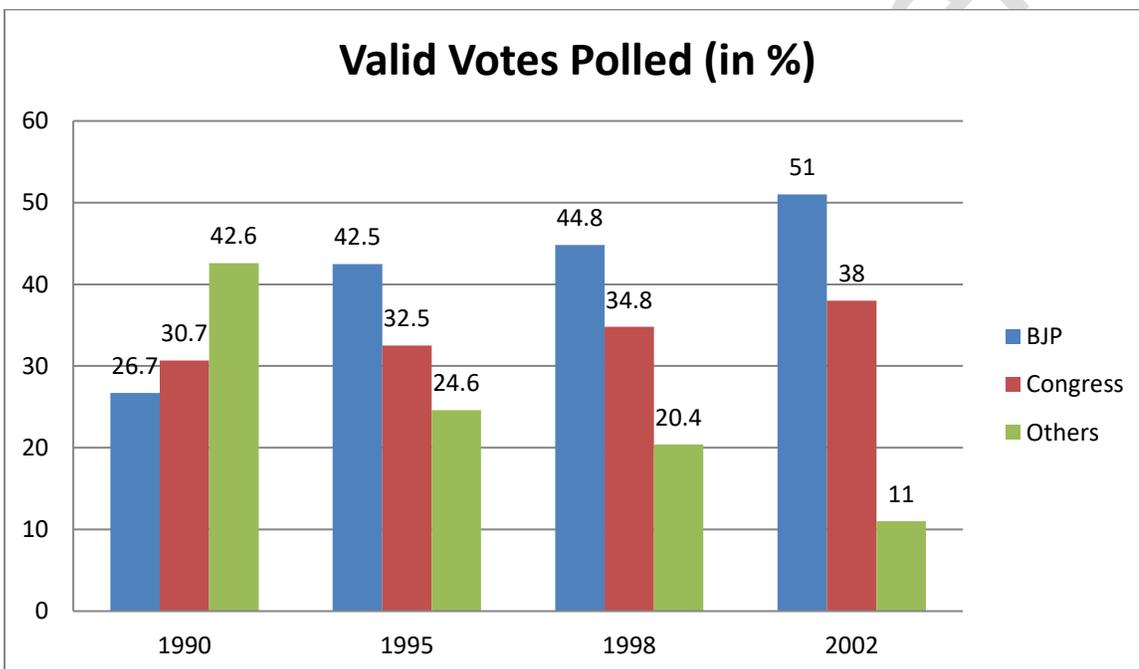
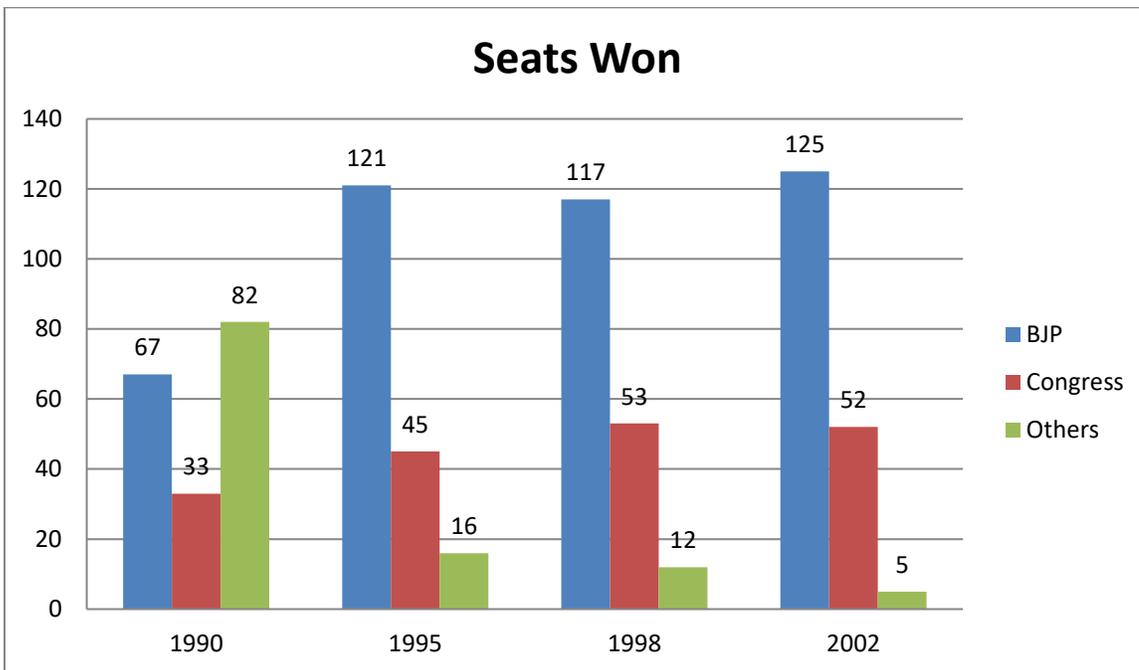
101. Which is the fuel for which demand in the rest of the world (excluding Asia) as a proportion of total energy demand of the world (including Asia) shows continuous decrease over the period?

- a) Solid fuels and Natural Gas
- b) Hydropower and Petroleum
- c) Solid fuels and Hydropower
- d) None of these

102. Over 2005-2020, which two fuels meet more than 60 per cent of the total energy demand of the World and Asia both?

- a) Nuclear and Hydropower
- b) Nuclear and Solid fuels
- c) Hydropower and Solid fuels
- d) None of these

Directions for question 103 to 107: Study the following graphs showing the seats won and the percentage of valid votes polled for different political parties in Gujarat over the years.



103. If the total number of valid votes in 2002 Gujarat elections was 5 crore, then find the average number of votes for winning one seat for other political parties.

- a) 11 lakh
- b) 1.10 lakh
- c) 1.10 crore
- d) Data is inadequate

104. In which of the following years was the number of seats won by BJP maximum with respect to the previous given year?

- a) 1998
- b) 1995
- c) 2002
- d) 1995 and 2002

105. In 1998, if 2.24 crore votes were valid for BJP, whereas in 1990 there were 1.228 crore votes valid for Congress, then by what per cent was the number of valid votes less in 1990 with respect to that in 1998?

- a) 20%
- b) 24%
- c) 30%
- d) 25%

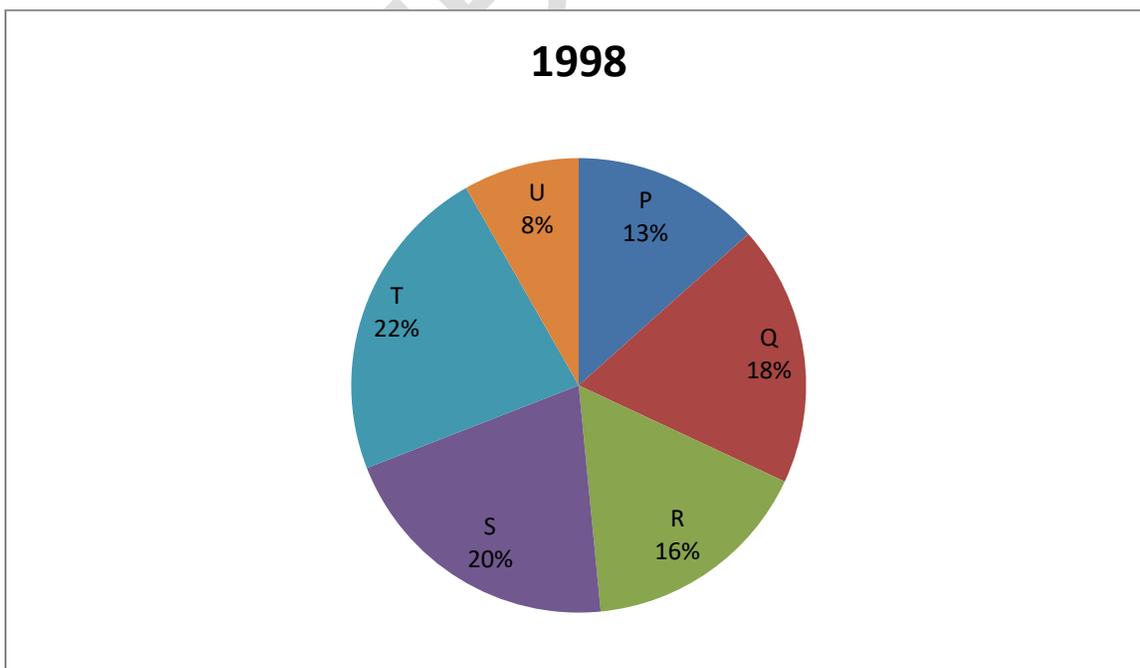
106. In which of the following years did the BJP secure more than $66\frac{2}{3}\%$ of the total seats?

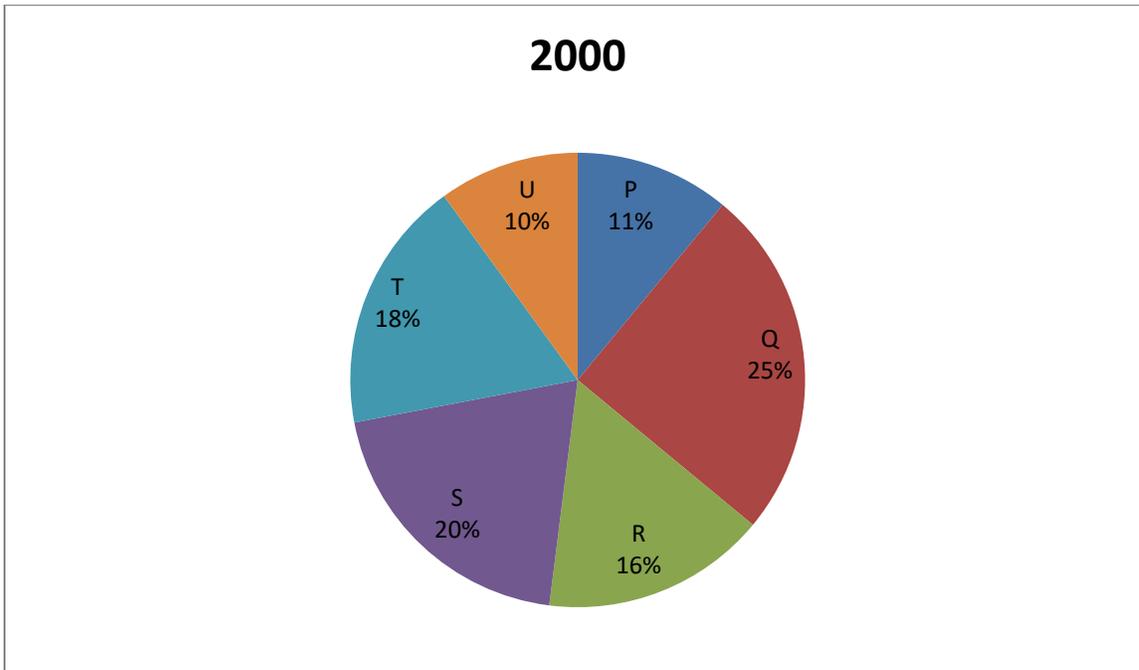
- a) 1990
- b) 1998
- c) 1995
- d) 2002

107. In which of the following years, was the difference in the number of valid votes for any two political parties the maximum?

- a) 1990
- b) 1998
- c) 1995
- d) Cannot be determined

Directions for question 108 to 112: Study the following graphs showing the number of workers of different categories of a factory for two different years. The total number of workers in 1998 was 2000 and in 2000 was 2400.





108. In which of the categories is the number of workers same in both the years?

- a) P
- b) S
- c) R
- d) T

109. Find the percentage increase in the number of workers in category U in 2000.

- a) 25%
- b) $33\frac{1}{3}\%$
- c) 50%
- d) $66\frac{2}{3}\%$

110. What is the total number of increased workers for the categories in which the number of workers has been increased?

- a) 468
- b) 382
- c) 408
- d) 168

111. Which of the following categories have shown decrease in the number of workers from 1998 to 2000?

- a) P
- b) Q
- c) R
- d) T

112. Find the Maximum difference between the number of workers of any two categories taken together for any one year and that of any two for the other year.

- a) 660
- b) 416
- c) 636
- d) 502

2007

Directions (113- 117): Refer the following table to answer these questions.

Sectorwise Installed Capacity in MW

Year	Thermal	Hydel	Nuclear	Total
1990	7900	6390	420	14710
1991	8200	6610	420	15230
1992	8900	6780	420	16100
1993	9100	6965	640	16705
1994	10150	7530	640	18320
1995	11000	8500	640	20140
1996	12000	9200	640	21840
1997	13000	9880	640	23520
1998	15200	10200	800	26200
1999	16700	10450	800	27950
2000	19000	11000	800	30800

113. The two years when the capacities were augmented in all the sectors are

- a) 1993 and 1998
- b) 1990 and 1991
- c) 1993 and 1996
- d) 1990 and 2000

114. The percentage increase in hydel capacity over that of the previous year was maximum in

- a) 1997
- b) 1991

- c) 1999
d) 1995

115. In 2000, the percentage share of nuclear power in the total power capacity installed was approximately

- a) 10.0
b) 2.59
c) 5.42
d) 1.11

116. If the total power generated in thermal units be 40% of the installed capacity, in hydel units be 50% of the installed capacity and in nuclear be 90% of the installed capacity, the total power generation in 1998 would be

- a) 19835 MW
b) 11900 MW
c) 5015 MW
d) 22100 MV

117. In 1990, the percentage share of thermal in total installed capacity was approximately

- a) 45
b) 50
c) 26
d) 54

Directions (118- 120): The following table refers to hotel construction projects. The cost of the project increased at the rate of 10% per annum; if completed beyond 1997.

Hotels in Mumbai				
Project	No. of Rooms	Estimated Cost (Rs. in crores)	Year of Completion	Company
Windsor Manor	600	275	1999	IHCL
Leela Hotels	310	235	1999	Leela Hotels
Mumbai Heights	250	250	1998	Bombay Hotels
Royal Holidays	536	225	1998	Lokhandwala Group
Majestic Holidays	500	250	1999	Raheja Group
Supremo Hotel	300	300	1999	ITC
Hyatt Regency	500	250	2000	Asian Hotels

118. What is the approximate cost incurred (in Rs. crore) for projects completed by 2000?

- a) Rs 1785 crore
- b) Rs 2140 crore
- c) Rs 2320 crore
- d) None of these

119. Which of the following has the maximum number of rooms per crore of rupees?

- a) IHCL
- b) Raheja Group
- c) Lokhandwala Group
- d) ITC

120. What is the cost incurred (in Rs. crore) for projects completed in 1998?

- a) Rs 475 crore
- b) Rs 500 crore
- c) Rs 522.5 crore
- d) Rs 502.5 crore

Mathematical Skills

121. A and B can separately do a piece of work in 20 and 15 days, respectively. They worked together for 6 days, after which B was replaced by C. If the work was finished in the next 4 days, then the number of days in which C alone could do the work will be

- a) 60 days
- b) 40 days
- c) 35 days
- d) 30 days

122. B can do a piece of work in 6 hours, B and C together can do it in 4 hours, and A, B and C together in $2\frac{2}{3}$ hours. In how many hours can A and B together do the same piece of work?

- a) 11 hours
- b) $6\frac{1}{7}$ hours
- c) $2\frac{3}{7}$ hours
- d) $3\frac{3}{7}$ hours

123. X can do $\frac{1}{4}$ of a work in 10 days, Y can do 40% of the work in 4 days and Z can do $\frac{1}{3}$ of the work in 13 days. Who will complete of work first?

- a) X
- b) Y

- c) Z
- d) X & Z both

124. A can do a piece of work in 7 days of 9 hours each where as B can do the same work in 6 days of 7 hours each. How long will they take to do the work together, working $8\frac{2}{5}$ hours a day?

- a) 2 days
- b) 3 days
- c) $3\frac{1}{7}$ days
- d) $4\frac{2}{5}$ days

125. When 5 percent is lost in grinding wheat, a country has to import 20 million bags to make up of the loss. But when only 2 percent is lost, it has to import 15 million bags. What is the quantity of wheat which grows in the country in million bags?

- a) $133\frac{1}{3}$
- b) 150
- c) $106\frac{2}{3}$
- d) $166\frac{2}{3}$

126. In a consumer preferences survey, 20% respondents opted for product A whereas 60% opted for product B. The remaining individuals were undecided. If the difference between those who opted for product B and those who were undecided is 720, how many individuals had been interviewed for the survey?

- a) 1440
- b) 1800
- c) 3600
- d) Data inadequate

127. Gauri went to the stationers and bought items worth Rs.25, out of which 30 paise went on sales tax on taxable purchases. If the tax rate was 6%, then what was the cost of the tax-free items?

- a) Rs.15
- b) Rs.15.70
- c) Rs.19.70
- d) Rs.20

128. Shyam had three note books X, Y and Z. Of these, X had 120 pages, Y had 10% more and Z had 10% less. If he tore out 5%, 10% and 15% of pages in X, Y and Z respectively, then what percent of total pages did he tear out?

- a) 8%
- b) 15%
- c) 7%
- d) None of these

129. A bag contains 4 five rupee coins, 3 two rupee coins and 3 one rupee coins. If 6 coins are drawn from the bag at random, what are the odds in favour of the draw yielding maximum amount?

- a) 1 : 70
- b) 1 : 69
- c) 69 : 70
- d) 70 : 1

130. Varun throw two unbiased dice together and gets a sum of 7. If his friend Tarun then throws the same two dice, what is the probability that the sum is less than 7?

- a) $\frac{1}{6}$
- b) $\frac{7}{12}$
- c) $\frac{1}{2}$
- d) $\frac{5}{12}$

2008

131. If the price of gold increases by 30%, find by how much the quantity of ornaments must be reduced so that the expenditure may remain the same as before.

- a) 30 %
- b) $23\frac{1}{13}$ %
- c) $27\frac{2}{13}$ %
- d) 19 %

132. A monthly return railway ticket costs 25 per cent more than a single ticket. A week's extension can be had for the former by paying 5 per cent of the monthly ticket's cost. If the money paid for the monthly ticket (with extension) is Rs 84, the price of the single ticket is

- a) Rs 64
- b) Rs 80
- c) Rs 48
- d) Rs 72

133. A papaya tree was planted 2 years ago. It increases at the rate of 20% every year. If at present, the height of the tree is 540 cm, what was its height when the tree was planted?

- a) 400 cm
- b) 375 cm
- c) 324 cm
- d) 432 cm

134. A mixture of 40 litres of milk and water contains 10% water. How much water should be added to this so that water may be 20% in the new mixture?

- a) 6.5 litres
- b) 5.5 litres
- c) 4 litres
- d) 5 litres

135. The amount of water (in ml) that should be added to reduce 9 ml lotion, containing 50% alcohol, to a lotion containing 30% alcohol, is

- a) 5 ml
- b) 4 ml
- c) 3 ml
- d) 6 ml

136. The average of marks obtained by 120 candidates was 35. If the average of the passed candidates was 39 and that of the failed candidates was 15, then the number of those candidates who passed the examination, was

- a) 120
- b) 110
- c) 100
- d) 150

137. Angad was conducting an experiment in which the average of 11 observations came to be 90, while the average of first five observations was 87, and that of the last five was 84. What is the measure of the 6th observation?

- a) 145
- b) 150
- c) 165
- d) 135

138. The average age of an adult class is 40 years. 12 new students with an average age of 32 years join the class, thereby decreasing the average by 4 years. The original strength of the class was

- a) 12
- b) 11
- c) 10
- d) 15

139. The average age of 8 persons in a committee is increased by 2 years when two men aged 35 years and 45 years are substituted by two women. The average age of these two women is

- a) 52 years
- b) 56 years
- c) 48 years
- d) 44 years

140. At Narmada Sarovar Bachao (NSB) demonstration, supporters of Ms Patkar outnumbered the police by 9 : 1. The police arrested 135 NSB supporters averaging 5 for every 3 policemen. How many supporters of NSB were there in the demonstration?

- a) 1215
- b) 665
- c) 405
- d) None of the above

141. A man received Rs. 12000 as Puja Bonus. He invested a part of it at 5% per annum and the remaining at 6% per annum, simple interest being allowed in each case. The total interest earned by him in 4 years is Rs. 2580. The sum invested at 5% per annum is

- a) Rs. 4500
- b) Rs. 4000
- c) Rs. 7500
- d) Rs. 8000

142. A finance company declares that, at a certain compound interest rate, a sum of money deposited by anyone will become 8 times in three years. If the same amount is deposited at the same compound rate of interest, then in how many year will it become 16 times?

- a) 5 years
- b) 4 years
- c) 6 years
- d) 7 years

143. In an objective examination of 90 questions, 5 marks are allotted for every correct answer and 2 marks are deducted for every wrong answer. After attempting all the 90 questions a student got a total of 387 marks. Find the number of questions that he attempted wrong.

- a) 36
- b) 18
- c) 9
- d) 27

144. A boatman rows to a place 45 km distant and back in 20 hours. He finds that he can row 12 km with the stream in same time as 4 km against the stream. Find the speed of the stream.

- a) 3 km/hr
- b) 2.5 km/hr
- c) 4 km/hr
- d) Cannot be determined

145. Two cyclists start on a circular track from a given point but in opposite directions with speeds of 7 m/sec and 8 m/sec respectively. If the circumference of the circle is 300 metres, after what time will they meet at the starting point?

- a) 100 sec
- b) 20 sec
- c) 300 sec
- d) 200 sec

146. In an objective examination of 90 questions, 5 marks are allotted for every correct answer and 2 marks are deducted for every wrong answer. After attempting all the 90 questions a student got a total of 387 marks. Find the number of questions that he attempted wrong
- a) 36
 - b) 18
 - c) 9
 - d) 27
147. Ram went to a shop to buy 50 kg of rice. He buys two kinds of rice which cost him Rs. 4.50 per kg and Rs. 5.00 per kg. He spends a total of Rs. 240. What was the quantity of rice bought which cost him Rs. 4.50 per kg.
- a) 25 kg
 - b) 30 kg
 - c) 20 kg
 - d) None of these
148. Seema invested an amount of Rs. 16,000 for two years on compound interest and received an amount of Rs. 17,640 on maturity. What is the rate of interest?
- a) 5 pcpa
 - b) 8 pcpa
 - c) 4 pcpa
 - d) Data inadequate
149. My Scooty gives an average of 40 kmpl of petrol. But after recent filling at the new petrol pump, its average dropped to 38 kmpl. I investigated and found out that it was due to adulterated petrol. Petrol pumps add kerosene, which is $\frac{2}{3}$ cheaper than petrol, to increase their profits. Kerosene generates excessive smoke and knocking and gives an average of 18 km per 900 ml. If I paid Rs. 30 for a litre of petrol, what was the additional amount the pump-owner was making?
- a) Rs. 1.75
 - b) Rs. 1.80
 - c) Rs. 2.30
 - d) Rs. 2
150. A train after travelling 150 km meets with an accident and then proceeds at $\frac{3}{5}$ of its former speed and arrives at its destination 8 hours late. Had the accident occurred 360 km further, it would have reached the destination 4 hours late. What is the total distance travelled by the train?
- a) 960 km
 - b) 870 km
 - c) 840 km
 - d) 1100 km
151. There are 4 candidates for the post of a lecturer in Mathematics and one is to be selected by votes of 5 men. The number of ways in which the votes can be given is

- a) 1048
- b) 1072
- c) 1024
- d) None of these

152. The number of ways in which 6 men and 5 women can dine at a round table if no two women are to sit together is given by

- a) $6! \times 5!$
- b) $5! \times 4!$
- c) 30
- d) $7! \times 5!$

153. A student is to answer 10 out of 13 questions in an examination such that he must choose at least 4 from the first five questions. The number of choices available to him is

- a) 140
- b) 280
- c) 196
- d) 346

154. A club consists of members whose ages are in AP, the common difference being 3 months. If the youngest member of the club is just 7 years old and the sum of the ages of all the members is 250 years, then the number of members in the club are

- a) 15
- b) 20
- c) 25
- d) 30

155. A metal cube of edge 12 cm is melted and formed into three smaller cubes. If the edges of two smaller cubes are 6 cm and 8 cm, then find the edge of the third smaller cube.

- a) 10 cm
- b) 14 cm
- c) 12 cm
- d) 16 cm

156. A well 22.5 deep and of diameter 7m has to be dug out. Find the cost of plastering its inner curved surface at Rs 3 per sq metre.

- a) Rs 1465
- b) Rs 1485
- c) Rs 1475
- d) Rs 1495

157. Water flows out through a circular pipe whose internal diameter is 2 cm, at the rate of 6 metres per second into a cylindrical tank, the radius of whose base is 60 cm. By how much will the level of water rise in 30 minutes?

- a) 2 m
- b) 4 m
- c) 3 m
- d) 5 m

158. A ladder 15 m long reaches a window which is 9 m above the ground on one side of a street. Keeping its foot at the same point, the ladder is turned to the other side of the street to reach a window 12 m high. Find the width of the street.

- a) 19 m
- b) 21 m
- c) 20 m
- d) 22 m

159. The horizontal distance between two trees of different heights is 60 m. The angle of depression of the top of the first tree when seen from the top of the second tree is 45° . If the height of the second tree is 80 m, then find the height of the first tree.

- a) 20 m
- b) 22 m
- c) 18 m
- d) 16 m

160. The number of ways in which a committee of 3 ladies and 4 gentlemen can be appointed from a meeting consisting of 8 ladies and 7 gentlemen, if Mrs X refuses to serve in a committee if Mr Y is its member, is

- a) 1960
- b) 3240
- c) 1540
- d) None of these

Indian and Global Environment

161. In the Union Budgets in India, which one of the following is the largest in amount?

- a) Non-Plan Expenditure
- b) Plan Expenditure
- c) Revenue Expenditure
- d) Capital Expenditure

162. Centre for DNA Fingerprinting is located at

- a) Bangalore
- b) New Delhi
- c) Pune
- d) Hyderabad

163. Cryogenic engines are used in

- a) Atomic reactors
- b) Rockets
- c) Defrost Refrigerators
- d) Doing research connected with superconductivity

164. "Threat of global warming" is increasing due to increasing concentration of

- a) Nitrous oxide
- b) Ozone
- c) Sulphur dioxide
- d) Carbon dioxide

165. Narain Karthikeyan is a sportsman in the field of

- a) Shooting
- b) Car racing
- c) Chess
- d) Golf

166. El Nino is

- a) A sea storm
- b) A warm ocean current
- c) A tropical disturbance
- d) Another name of typhoon

167. Which of the following industries are the major beneficiaries of the Mumbai port?

- a) Sugar and Cotton textile industry
- b) Iron and steel industry
- c) Cotton textile and Petrochemical industry
- d) Engineering and Fertilizer industry

168. The World Trade Organization (WTO) was earlier known as

- a) UNICEF
- b) GATT
- c) UNCTAD
- d) FAO

169. The outcome of devaluation of currency is

- a) Increased export and foreign reserve deficiency
- b) Increased export and improvement in balance of payments
- c) Increased import and improvement in balance of payments
- d) Increased export and import

170. Nuclear reactors used to produce electricity are based on

- a) Nuclear fusion
- b) Nuclear fission
- c) Cold fusion
- d) Superconductivity

171. The states through which the Cauvery river flows is

- a) Kerala, Karnataka and Tamil Nadu
- b) Andhra Pradesh, Karnataka and Tamil Nadu
- c) Kerala, Andhra Pradesh and Tamil Nadu
- d) Maharashtra, Karnataka and Tamil Nadu

172. In India, National Income is estimated by

- a) Central Statistical Organisation
- b) Planning Commission
- c) Indian Statistical Institute
- d) National Sample Survey Organisation

173. Which state in the country has the largest number of districts?

- a) Maharashtra
- b) Madhya Pradesh
- c) Tamil Nadu
- d) Uttar Pradesh

174. What is 'Super 301'?

- a) A French news channel
- b) An American trade law
- c) A British anti-aircraft missile
- d) None of these

175. Who finally approves the draft five-year plans?

- a) President
- b) Planning Commission
- c) Prime Minister
- d) National Development Council

176. Which is India's largest private sector bank?

- a) UTI Bank
- b) ICICI Bank
- c) HDFC Bank
- d) IDBI Bank

177. The National Stock Exchange functions from

- a) New Delhi
- b) Kolkata
- c) Mumbai
- d) Chennai

178. What is the purpose of the India Brand Equity Fund?

- a) To organise trade fairs
- b) To promote in-bound tourism
- c) To make 'Made in India' a label of quality
- d) To provide venture capital to IT sector

179. The Planning Commission of India is

- a) a constitutional body
- b) an advisory body
- c) a statutory body
- d) an independent and autonomous body

180. What is the percentage of India's population with respect to the World population?

- a) 26 per cent
- b) 16 per cent
- c) 6 per cent
- d) 36 per cent

181. The Chairman of the National Development Council (NDC) is the

- a) Minister of Information Technology
- b) Finance Minister
- c) Prime Minister
- d) Speaker of Lok Sabha

182. Internet was developed upon which among the following operating systems?

- a) LINUX
- b) UNIX
- c) Windows 98
- d) Sun Solaris

183. The Secretary General of the United Nations is

- a) Ban Ki-Moon
- b) Kofi Annan
- c) Boutros Boutros-Ghali
- d) None of these

184. Which bank projects itself as "Indian International Bank"?

- a) State Bank of India
- b) Indian Bank
- c) Bank of Baroda
- d) Bank of India

185. The tagline "Everyday Solutions" is associated with which company?

- a) Philips
- b) Crompton Greaves
- c) Usha
- d) Nokia

186. "Servo" lubricant is a product from which oil company?

- a) Bharat Petroleum
- b) Reliance Petroleum
- c) Hindustan Petroleum
- d) Indian Oil

187. Which of the following companies is the world's largest maker of computer chips?

- a) Microsoft
- b) Intel
- c) AMD
- d) Future Soft

188. The term CRM stands for

- a) Care and Relationship Management
- b) Customer Relationship Methods
- c) Customer Retaining Methods
- d) Customer Relationship Management

189. Which of the following is not a private Indian Bank?

- a) Canara Bank
- b) IDBI Bank Ltd
- c) HDFC Bank Ltd
- d) Bank of Rajasthan

190. Peter Drucker was a famous

- a) Economist
- b) Management Theorist
- c) Environmentalist
- d) Industrialist

191. Which is the world's single largest manufacturing industry in terms of revenue and employment?

- a) Textile
- b) Steel
- c) Automobile
- d) None of these

192. What does SEZ stand for

- a) Southern Economic Zone
- b) Special Economic Zone
- c) Single Economic Zone
- d) South European Zone

193. SIDBI stands for

- a) Small Investment and Development Bank of India
- b) Small Industries Development Bank of India
- c) Savings Investment and Development Bank of India
- d) South Indian Deposit Bank of India

194. Which of the following bodies certifies the circulation figures of newspapers?

- a) ISI
- b) AINEC
- c) FTI
- d) ABC

195. The gas which had leaked out of Union Carbide factory in Bhopal was

- a) Sulphur dioxide
- b) Carbon monoxide
- c) Chlorine
- d) Methyl isocyanate

196. India has a

- a) Socialistic economy
- b) Mixed economy
- c) Gandhian economy
- d) Free economy

197. The headquarters of the International Olympic Committee is at

- a) Lausanne (Switzerland)
- b) Los Angeles
- c) Moscow
- d) New York

198. Siachen is a

- a) Frontier zone between China and India
- b) Glacier frontier zone between India and Pakistan
- c) Frontier zone between India and Myanmar
- d) Desert frontier between Pakistan and India

199. Who has the Constitutional authority to decide the tax share of States?

- a) Finance Minister
- b) Planning Commission
- c) Finance Commission
- d) Union Cabinet

200. The difference between a bank and a non-banking financial institution (NBFI) is that

- a) A bank interacts directly with the customers while an NBFI interacts with banks and governments.
- b) A bank deals with both internal and international customers while an NBFI is mainly concerned with the finances of foreign companies.
- c) A bank indulges in a number of activities relating to finance with a range of customers, while an NBFI is mainly concerned with the term loan needs of large enterprises.
- d) A bank's main interest is to help in business transactions and savings/investment activities while an NBFI's main interest is in the stabilization of the currency.