MAT 2007

Language Comprehension

Instructions [1 - 4]

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

- 1. The political masters of the health care system have not listened to professional health planners because it <u>has not been profitable for them to do that thing</u>.
- 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.

Answer: D

- 2. 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.
- Produce toxic waste products that inhibit further growth and reach equilibrium

Answer: B

- 3. It could be argued that the most significant virtue of a popular democracy is not the right to participate in the selection of leaders, <u>but rather that it affirms</u> our importance in the scheme of things.
- A but rather is affirmation of

but rather that it

- **B** affirms
- **C** but rather it's affirmation in terms of
- **D** but instead of that, its affirming that

Answer: C

- 4. Long popular among the connoisseurs of Indian music, Ravi Shankar first impressed western listeners with his phenomenal technical virtuosity, <u>but they soon came to appreciate his music as an</u> <u>artful</u> 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

Answer: D

Instructions [5 - 8]

Fill in the blanks.

- 5. 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

Answer: A

- 6. 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

cultural - perceptive

Answer: D

- 7. 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

Answer: C

- 8. 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

Answer: B

Instructions [9 - 12]

Each question has a group of sentences marked A, B, C, and D. Arrange these to form a logical sequence.

9. A. We tend to see the similarity within a category as being more important, and the similarity between different categories as being less important, that either actually is.

B. Given a small amount of information about a person, we are ready to classify them as a member of a particular group, and then to infer all kinds of additional facts about them, as if all members of the group were the same in most respects.

C. Our tendency to classify and label everything can lead us into the error of seeing the world as made up of only those categories for which we have names.

D. Expecting too much of the descriptive power of languages is itself a serious cause of distorted thinking.

- A DCBA
- **B** DBAC

c BDAC

D BCDA

Answer: A

10. A. Some of us, as a result, gain an overall impression of people as either all good or all bad, making further assumptions on this basis.

B. An example of the assumption some patients make that doctors with a good "bedside manner" are also more technically competent as others who do not relate as well to their patients.C. This is what the psychologists refer to as halo effect.

D. We have a strong tendency of associate positive attributes with other positive attributes and negative ones with each other.

- A DCBA
- **B** DABC
- **C** DBCA
- **D** DACB

Answer: B

11. A. In the past, the customized tailoring units were localized to the township or city and catered exclusively to domestic demand.

B. Traditionally, Indian preferred custom made clothing and the concept of ready to wear is a relatively recent one.

C. Consumer awareness of styling issues and the convenience afforded by ready to wear helped the RMG industry makes small inroads into the domestic market in the 1980s.

D. The customized tailoring outfits have always been a major source of clothing for domestic market.

- **A** BDAC
- **B** BCDA
- **C** CDBA
- **D** DBAC

Answer: D

12. A. Participation involves more than the formal sharing of decisions.

B. Through anticipation, individuals or organizations consider trends and make plans, shielding institutions from trauma of learning by shock.

- C. Innovative learning involves both anticipation and participation.
- D. It is an attitude characterized by the co-operation, dialogue and empathy.

- A ABCD
- **B** BCDA
- C CBAD
- **D** DABC

Answer: C

Instructions [13 - 16]

Attempt these questions independent of each other.

13. Many of the junk foods on the market today, doughnuts, burgers and pizza, have less nutrients than natural foods, which were dominant a decade or two ago. Many nutritionists claim that pizza and doughnuts give less nourishment than natural foods. A spokesman of a leading junk food company-Pizza House - stated recently that an examination of grade school students shows less nutritional deficiency than in their parents' time. Hence, junk foods are not as bad as made out to be.

Which of the following, if true would tend to strengthen the view of the spokesman?

- **A** Fewer junk foods were available to the parents.
- **B** Grade school children reported eating no breakfast at all.
- **C** Adults claim to eat junk foods as well as natural foods.
- **D** Both (1) and (3)

Answer: D

14. Throughout the first decade of the 21st century, net increases in Indian direct investments in the Far East (funds outflows) exceeded net new Far East direct investment in India.

Each of the following, if true, could help to account for this trend except

- **A** Labour mobility was higher in India than in the Far East.
- **B** Land values in the Far East were increasing at a faster rate than in India.
- **C** The cost of labour (wages) was consistently lower in the Far East than in India.
- **D** Corporate liquidity was lower in India than in the Far East.

Answer: A

15. Of the world's largest AIDS cases countries in 2010, three had the same share of world AIDS patients as they had in 2000. These three countries may serve as examples of countries that succeeded in holding steady their share of the AIDS disease.

Which of the following, if true, would most seriously undermine the idea that these countries serve as examples as described above ?

- A Countries should strive to reduce their share of the total AIDS patient in the world, rather than try to hold it constant.
- **B** Of the three countries two had a much larger share of world AIDS incidence in 2000 than in 2010.
- **c** The three countries have different rates of population growth.
- **D** None of these

Answer: C

16. The cost of housing in many urban parts of India has becomes so excessive that many young couples, with aboveaverage salaries, can only afford small apartments. EMI and rent commitments are so huge that they cannot consider the possibility of starting a family since a new baby would probably mean either the mother or father giving up a wellpaid position - something they can ill afford. The lack of or great cost of child-care facilities further precludes the return of both parents to work.

Which of the following adjustments could practically be made to the situation described above which would allow young couples to improve their housing prospects ?

- A Encourage couples to have one child only.
- **B** Encourage couples to remain childless.
- **C** Encourage young couples to move to cheaper areas for living.
- **D** None of these is likely to have an impact on the current situation.

Answer: B

Instructions [17 - 20]

Each of these questions has sentence with four alternatives. Choose the alternative which best conveys the content of the given sentence correctly.

- 17. No officer had ought to be put into situation where he has to choose between his love for his family and the responsibilities accompanying his duty.
- A No officer had ought to be put into a situation in which he has to choose between his love for his family and the responsibilities accompanying his duty.

No officer had ought to be put into a situation where he has to choose between his love for his family and the responsibilities accompanying his duty.

- **c** No officer should be put into a situation where he has to choose between his love for his family and the responsibilities accompanying his duty.
- No officer ought to be put into a situation in which he has to choose between his love for his family and the responsibilities accompanying his duty.

Answer: D

- 18. Being a realist, the detective could not accept the statement of the accused that UFOs had caused the disturbance.
- A Since he was a realist, the detective could not accept the statement of the accused that UFOs had caused the disturbance.
- **B** Being a realist the detective could not accept the statement of the accused that UFOs had caused the disturbance.
- **c** Being that he was a realist, the detective could not accept the statement of the accused that UFOs had caused the disturbance.
- Realist that he was, the detective could not accept the statement of the accused that UFOs had caused the disturbance.

Answer: B

- 19. Ever since the sting operation, there has been much opposition from they who maintain that it was an unauthorised act.
- A Ever since the sting operation, there has been much opposition from they who maintain that it had been an unathorised act.
- **B** ever since the sting operation, there has been much opposition from they who maintain that it was an unauthorised act.
- **c** Ever since the sting operation, there has been much opposition from they who maintain that it was an unauthorised act.
- Ever since the sting operation , there has been much opposition from those maintaining that it was an unauthorised act.

Answer: A

20. The trend toward a decrease in the working hours is already evident in the longer weekend given to employees in many multinational organisations.

- A The trend toward a decrease in the working hours is all ready evident in the longer weekend given to employees in many multinational organisations.
- **B** The trend toward a decrease in the working hours is already evident in the longer weekend given to employees in many multinational organisations.
- **c** The trend toward decrease in the working hours is already evident in the longer weekend given to employees in many multinational organisation.
- **D** The trend toward a decrease in the working hours is all in already evident in the longer weekend given to employees in many multinational organisations.

Answer: A

Instructions [21 - 24]

Read the passages to answer the questions that follow each passage.

PASSAGE - I

"Since wars begin in the minds of men," So runs the historic UNESCO Preamble, "It is in the minds of men that the defences of peace must be constructed." Wars erupt out when the minds of men are inflamed, when the human mind is blinded and wounded, succumbs to frustration and selfnegation. War is the transference of this self-negation into the other-negation. The three Indo-Pak wars and the persisting will to terrorise have emanated from this savage instinct of other-negation that is the legacy of the partition carnage and its still-bleeding and unhealed wound. Truncated from its eastern wing in 1971, Pakistan ever since has suffered from a sense of total existential self-negation. Plus the scars left the two previously lost wars to India and Kargil fill the Army and the Pakistan psyche with a seething urge to revenge :that India has to be negated, destroyed - in a deep psychological sense, another Hiroshima in the subcontinent is imaginable and possible. Terrorism in Kashmir springs from such deep negating existential grounds. Like the former Soviet Union, Pakistan came into being as a result of a grand delusion and massive perversion of reality - the so called two-nation theory. Like the former Soviet Union, it stands in danger of crumbling unless it modifies its reality perception and comes to terms with its post-Bangladesh identity within the prevailing subcontinental equation. Failing this, Pakistan is bound to break up, nudging the region to a nuclear nightmare, including possible South Asian Hiroshimas. With 'hot pursuits' and 'surgical operations' freely making rounds among the policy elite and the public at large, the national atmosphere looks ominously charged. "On the brink," headlines The week adding, "As men and machines are quickly positioned by India and Pakistan, the threat of war looms real". To which Gen. Musharraf counters, "If any war is thrust on Pakistan, Pakistan's armed forces and the 140 million people of Pakistan are fully prepared to face all consequences with all their might." According to Indian Express, "Pakistan has deployed medium range ballistic missile batteries (MRBBs) along the line of Control (LOC) near Jammu and Poonch sectors in an action that will further escalate the tension between the two countries." And India's Defence Minister ups the ante, "We could take a (nuclear) strike, survive and then hit back, Pakistan would be finished." (Hindustan Times, December 30, 2001) Mr. Fernandes's formulation is certainly a tactical super shot, even a strategical super hit in as much as this is the very logic of India's 'Nofirst-strike' doctrine. The Defence Minister obviously has no idea of the ethical, phenomenological implications of abandoning chunks of the Indian population to ransom for potential Hiroshimas and then 'finishing' the neighbouring country of 140 million in what could be nothing short of an Armageddon. Forget these horrendous scenarios. But does this not repudiate the grain of truth for which India's civilisation stood for and vindicated across the untold millennia of its history? Yet, Mr. Fernandes, the pacifist and Gandhian, is no warmonger. As Defence Minister he had to react at a level with the Pakistanis, with their proclivity to

drop the nuclear speak when ever that suited them, could have registered the message.

- 21. According to the passage, Pakistan is bound to disintegrate
 I. and it will throw the subcontinent into a nuclear backlash.
 II. if it refuses to accept its present identity.
 III. if it does not stop fuelling terrorism in Kashmir.
- A II and III are correct
- **B** I, II and III are correct
- C I and II are correct
- **D** I and III are correct

Answer: D

- 22. It can be inferred from the passage that
- **A** Soviet Union crumbled as a result of the grand delusion of the two nation theory.
- **B** Soviet Union also came into being as a result of the two nation theory.
- **C** Soviet Union's disintegration was due to her failure to accept the reality.
- D The ideological basis of creation of Soviet Union and Pakistan was the same.Answer: A

23. According to the passage, the reason for terrorism in Kashmir is

- **A** Pakistan's perception of two-nation theory.
- **B** Pakistan's blind faith in terrorism.
- **C** Pakistan's sense of self-negation.
- **D** Both (2) and (3)

Answer: A

- 24. According to the passage, all of the following about the defence minister are not true, except
- **A** He is not a Gandhian.
- **B** He is not logical.
- **C** He is a pacifist
- **D** He is not a warmonger.

Instructions [25 - 29]

Read the passages to answer the questions that follow each passage.

PASSAGE - II

Not even a three-day brainstorming session among top psychologists at the Chinese University could unravel one of the world's greatest puzzles - how the Chinese mind ticks. Michael Bond had reason to pace the pavement of the Chinese University campus last week. The psychologist who coordinated and moderated a three-day seminar in Chinese psychology and most of the participants came a long way to knock heads. "If a bomb hits this building" muttered Bond, half-seriously, "It would wipe out the whole discipline." But the only thing that went off in the Cho Yiu Conference Hall of Chinese University was the picking of brains, the pouring out of brains and a refrain from an on-going mantra: "more work needs to be done" or "we don't know". Each of the 36 participants was allowed 30 minutes plus use of an overhead projector to condense years of research into data and theories. Their content spilled over from 20 areas of Chinese behaviour, including reading, learning styles, psychopathology, social interaction, personality and modernisation. An over-riding question for observers, however, was why, in this group of 21 Chinese and 15 nonChinese, weren't there more professionals from mainland China presenting research on the indigenous people? Michael Philips, a psychiatrist who works in Hubei province, explained: "The Cultural Revolution silenced and froze the research," said the Canadian-born doctor who has lived and worked in China for more than 10 years. "And 12 years later, research is under way but it is too early to have anything yet. Besides, most of the models being used are from the West anyway." In such a specialised field, how can nonChinese academics do research without possessing fluency in Chinese ? Those who cannot read, write or speak the language usually team up with Chinese colleagues " In 10 years, we won't be able to do this. It's a money thing," said William Gabrenya of Florida Institute of Technology, who described himself as an illiterate Gweilo who lacks fluency in Chinese. He said that 93 per cent of the non-Chinese authors in his field cannot read Chinese. Dr. Gabrenya raised questions such as why is research dependent on university students, why is research done on Chinese people in coastal cities (Singapore, Taiwan, Shanghai and Hong Kong) but not inland? "Chinese psychology is too Confucian, too neat. He's been dead a long time. How about the guy on motorcycle in Taipei?" Dr. Gabrenya said, urging that research have a more contemporary outlook.

The academics came from Israel, Sweden, Taiwan, Singapore, United states, British Columbia and, of course, Hong kong. Many of the visual aids they used by way of illustration contained eye-squinting type and cobweb-like graphs. One speaker, a sociologist from Illinois, even warned her colleagues that she would not give anyone enough time to digest the long, skinny columns of numbers. Is Chinese intelligence different from Western? For half of the audience who are illiterate in Chinese, Professor Jimmy Chan of HKU examined each of the Chinese characters for "intelligence". Phrases such as "a mind as fast as an arrow" and connections between strokes for sun and the moon were made. After his 25-minute speech, Chan and the group lamented that using Western tests are the only measure available to psychologists, who are starving for indigenous studies of Chinese by Chinese. How do Chinese children learn? David Kember of Hong Kong Polytechnic University zeroed in on deep learning versus surface. Deep is when the student is sincerely interested for his own reasons. Surface is memorising and spitting out facts. It doesn't nurture any deep understanding. If the language of instruction happens to be the children's second language, students in Hong Kong have all sorts of challenges with English-speaking teachers from Australia, Britain and America with accents and colloquialisms. Do Westerners have more self-esteem than Chinese? Dr. Leung Kwok, chairman of the psychology department of Chinese University, points his finger at belief systems: the collectivist mind-set often stereotypes Chinese unfairly. The philosophy of "yuen" (a concept used to explain good and bad events which are predetermined and out of the individual's control)

does not foster a positive selfconcept. Neither do collectivist beliefs, such as sacrifice for the group, compromise and importance of using connections. "If a Chinese loses or fails, he has a stronger sense of responsibility. He tends to blame it on himself. A non-Chinese from the West may blame it on forces outside himself," Dr. Leung said. By the end of the three-day session, there were as many questions raised as answered. It was agreed there was room for further research. To the layman, so much of the discussion was foreign and riddled with jargon and on-going references to studies and researchers. The work of the participants will resurface in a forthcoming Handbook of Chinese Psychology, which will be edited by Dr. Bond and published by Oxford University Press.

25. According to the passage the author suggests that

- **A** not many people study Chinese psychology.
- **B** the building is in danger of attack.
- **C** Chinese psychology is a difficult subject to study.
- **D** Chinese psychology is a difficult subject to organize.

Answer: A

26. It can be inferred from the passage that

- **A** the Cultural Revolution was a productive period for Chinese psychology.
- **B** the Cultural Revolution was a dangerous period for Chinese psychology.
- **C** the Cultural Revolution was an unproductive period for Chinese psychology.
- **D** the Cultural Revolution was a new beginning for Chinese psychology.

Answer: C

- 27. According to the passage, William Gabrenya refers to himself as an 'illiterate gweilo'. This suggests that
- **A** he feels defensive about not speaking and reading Chinese.
- **B** he feels secure in his illiteracy.
- **C** he is representative of other westerners active in this field.
- D he can operate perfectly well without learning Chinese.Answer: A
- $28. \ \mbox{According to the passage, all of the following are true except}$
- **A** the visual aids were not very easy to understand.

- **B** the conference attracted a very professional standard of presentation.
- **C** the visual aids were not very tidy.
- **D** the presenters were under time pressure.

Answer: B

29. According to the passage which of the following is not true?

- A Chinese characters are very difficult for westerners to master.
- **B** It is difficult to come to a conclusion about western and Chinese intelligence.
- **C** It is difficult to measure Chinese intelligence with western tests.
- **D** More tests are required that are conducted by the Chinese for the Chinese

Answer: A

Instructions [30 - 33]

Read the passages to answer the questions that follow each passage.

PASSAGE -III

After President George W. Bush signed the United States - India Nuclear Cooperation Bill, he called up Prime Minister Manmohan Singh to tell him how pleased he was at this development. While welcoming this event, the Prime Minister took the opportunity to tell the President that there remained areas of concern that needed to be addressed during the negotiation of the bilateral agreement (called the 123 agreement, after the relevant clause number in the U.S. Atomic Energy Act, 1954). The U.S. has entered into some twenty five I 23 agreements with various countries, including the one concerning Tarapur. The Tarapur agreement concluded in 1963 was unique in that it guaranteed supplies of enriched uranium fuel from the U.S. for running the Tarapur reactors for their entire life. However, after 1978 the U.S. did not supply fuel saying its domestic legislation (under the Nuclear Non-Proliferation Act) prevented it from doing so. India argued that Tarapur was an inter-governmental agreement and hence it had to be honoured by the U.S. But to no avail. However, later, the U.S. allowed France to supply fuel to India. Subsequently, the USSR (now Russia) and even China supplied fuel for Tarapur. The lesson from the Tarapur episode is that U.S. breached with impunity even a cast-iron guarantee it had furnished. Considerable bitterness gres between the U.S. and India are extended to many other areas beyond the nuclear one. When India agreed, reluctantly, in March 2006 to put imported reactors under "safeguards in perpetuity", the U.S. consented to the Indian insistence on assurances of fuel supply. This meant India could build up a stockpile of fuel to tide over disruption in supply and the U.S. would agree to work with other countries namely Russia, France, and Britain to arrange alternate supplies. The U.S. legislation, based on the Hyde Bill, forbids India building up a stockpile of nuclear fuel. It also obligates the U.S. administration to work with other Nuclear Supplier Group countries to get them to suspend supplies to India, if the U.S. has done so under some provision of the Hyde Bill. It is not evident how the U.S. can address the legitimate concerns of India on continued fuel supply, given the boundaries set by the Hyde Bill. With regard to future nuclear tests, the Prime Minister has said, India is only committed to a voluntary moratorium. The moratorium is only a temporary holding off of an activity, conditioned by specific circumstances that obtained at the time when such a declaration was

made. It cannot be construed as a permanent ban. The Hyde Bill has sought to make the moratorium into a permanent ban. However, there is no such restraint imposed on the U.S., China, Pakistan or any other country. In bringing up this issue, I do not wish to suggest that I favour a resumption of tests by India. But India cannot prevent other countries from carrying out tests. It is, therefore, unacceptable that India forfeits its right to test for all time to come under the agreement with the U.S. Even if the 123 agreement is silent on the issue, Indian negotiators must put this issue on the table. The Hyde Bill calls for suspension of all cooperation and fuel supplies and even calls for return of all equipment and materials supplied earlier in the event of a test. It baffles one how India can return reactor installations that might have been operated a few years, were such a contingency to arise in future. The differences over the definition of "full civilian nuclear cooperation" have been discussed in the media. The Indian understanding was that reprocessing of spent fuel, enrichment of uranium, and production of heavy water also formed part of the term "full civilian nuclear cooperation." In the congressional debate, it has been noted that these were construed by the U.S. to be in the nature of military activities and not civilian. India's future plans for thorium utilisation for civil nuclear power depend crucially on reprocessing. Similarly, civil nuclear power units using natural uranium require heavy water as reactor coolant and moderator. Equally if India were to embark on a sizeable light water reactor programme, it may like to have control on supply of enriched uranium for economic and supply security reasons. India has technologies of its own in these areas and will develop them further in the years ahead. If the Indo-U.S. agreement moves ahead in the manner its sponsors have speculated, in a few decades from now some 90 per cent of the nuclear installations in India would be open to International Atomic Energy Agency inspections. In that scenario, how can India reconcile to the embargo from nuclear advanced countries on the export of enrichment, reprocessing, and heavy water technologies? Even if the issue were to be papered over new, it will then look from India's point of view to have been a very bad bargain.

30. What is the Indian understanding of the definition of "full civilian nuclear cooperation"?

- **A** Enrichment of uranium
- **B** Reprocessing of spent fuel
- **C** Production of heavy water
- **D** All the above

Answer: C

- 31. With reference to the passage, select which of the following statement(s) is/are incorrect? A. U.S. did not supply fuel to India after 1987.
 - B. The Hyde Bill calls for suspension of all cooperation and fuel supplies.
 - C. India can prevent other countries from carrying out the test.
- A A and B
- B B only
- C A and C
- D A, Band C

Answer: C

- 32. What was the uniqueness of the Tarapur agreement that was concluded in 1963?
- A It guaranteed supplies of enriched uranium fuel from the U.S. for running the Tarapur reactors for entire life.
- **B** It prevented other countries from carrying out nuclear tests.
- **C** It addresses the legitimate concerns of India on fuel supply.
- **D** All the above

Answer: C

- 33. Which of the following countries supplied fuel for Tarapur?
- **A** France
- **B** U.S.A.
- C USSR and France
- D France, USSR and China

Answer: C

Instructions [34 - 36]

Read the passages to answer the questions that follow each passage.

PASSAGE IV

Mobility of capital has given an unprecedented leverage to companies not only to seek low paid, informal wage employees across national boundaries, but the threat of capital flight can also serve to drive down wages and place large numbers of workers in insecure, irregular employment. Informalisation strategies enable employers to draw on the existing pool of labour as and when they require, without having to make a commitment to provide permanent employment or any of the employee-supporting benefits associated with permanent jobs. As far as the working class is concerned, informalisation is in fact, a double-edged sword. For not only is the employee denied the rights associated with permanent employment, but the nature of casual work essentially destroys the foundations of working class organisations. As workmen move from one employer to another, numbers are scattered, everyday interests become divergent, and individualised survival takes precedence over group or collective struggles.

Even workers who have been in sectors with a long tradition of unionisation are difficult to organise once they are removed from the arena of permanent employment. About 50,000 textile mill workers in Ahmedabad City were laid off during the late 1980s and early 1990s. The move to obtain compensation and rehabilitation for these workers floundered on the weakness of the struggle, as numbers of workers who were available for pressing their claims and taking to some kind of activism dwindled, the motivation of leaders declined and the struggle slowly frittered away. If this is the situation with workers familiar with the concept of unionisation, the task of organising vast masses of casual workers who have never been organised, is obviously much more difficult. The problem, essentially, is not only that of organising workers for struggle, but given the transitory nature of casual employment, employers are not bound to provide insurance of any kind, and frequently, there is no fixed employer against whom workers' claims can be pressed. In this context, the formation of the National Centre for Labour (NCL) can be seen as a landmark in the history of the working class movement in India. The NCL is an apex body of independent trade unions working in the unorganised sector of labour, registered under the Indian Trade Union Act, 1926. Through its constituent members, the NCL represents the interests of workers in construction, agriculture, fisheries, forests, marble and granite manufacturing, self-employed women, contract workers, anganwadi and domestic workers, as also workers in the tiny and small-scale industries. The NCL, launched in 1995, has about 6,25,000 members spread over 10 states in India. The NCL reflects two tendencies. First, the formation of such a federation highlights that despite the problems in organising workers in the informal sector, there have in fact, been a range of organisations which have sought to address these issues. On a collective plane, their activities represent a marked departure from the traditional way of conceptualising union activities exclusively around organised or formal sector workers. Thus, the unionisation of the hitherto unorganised sector has become inserted into the political universe as a possible and legitimate activity. Second, the formation of the NCL, to an extent, overturns the pessimistic logic that the interests of the unorganised sector - given their diverse and inchoate form - cannot be articulated from a single platform. For the NCL aims precisely, do not only provide an anchoring for these diverse organisations, but more importantly, to articulate the need for institutionalised norms of welfare which can apply to the unorganised sector as a whole. It is in the context of this generalised movement that one needs to view recent efforts to bring in legislative acts which seek to create a new framework of laws and institutions addressing the needs of the unorganised sector. One of the major problems that has dogged this sector has of course been that of implementation. Thus, for example, while there is a stipulated minimum wage for most industries, this is frequently flouted by employers. A central objective of the NCL has been to advocate legislation to create agencies, which would mediate between the employer and the employee, to institutionalise certain guarantees of welfare and security to the' employee. Thus, for example, the State Assisted Scheme of Provident Fund for Unorganised Workers, 2000, proposed by the Labour Department of the Government of West Bengal, introduces the mechanism of a Fund which will be contributed to by the worker (wageearner or self-employed person), the employer, and the Government and to which the worker would be entitled at the age of 55 or above. By registering a worker to this programme and issuing an identity card, the initial hurdle to identifying a large mass of scattered workers is overcome, and a step is taken towards institutionalising their legitimate claims against the employers and from the State. The Karnataka Unorganised Workers (Regulation of Employment and Conditions of Work) Bill, 2001", offers a more comprehensive framework for addressing the unorganised sector's needs. It envisages the formation of a Fund and a Board, in each sector. The Board, consisting of members from the Government, employers and employees, would be responsible for administering the Fund. Employers must compulsorily pay towards the Fund, a certain fixed percentage of the wages or taxes payable by them, or a certain percentage of the cost of their project, (for example, in construction projects). The concept of the Fund is designed to create the financial viability of social security for workers, and to provide a structure for employers' contribution. Thus, workers would be insured for accident and illness, old age, and .unemployment. The Board is designed to provide a mechanism to ensure the working of the Fund, and essentially, to institutionalise workers' claims against employers through an empowered agency. In the broader context of economic liberalisation, recently proposed labour reforms seek to extend the scope of contract employment and to facilitate worker lay-off. As casualisation of labour now seems an irreversible trend, the Bills outlined above would appear to be the only way to ensure workers' interest. To this extent, organisations such as the NCL, which have systematically struggled to push for such legislation, are serving an invaluable historical purpose. As the Karnataka Unorganised Workers Bill awaits endorsement during the Assembly sessions being held currently, for the protagonists of the movement, this would be a watershed, but, nevertheless only a moment in a struggle that needs to be waged at multiple points and to evolve to newer heights.

34. According to the passage the proposed labour reforms

- **A** will provide a much needed thrust to liberalization
- **B** will encourage the practice of hiring labourers on a contract basis.
- **C** have resulted in casualisation of labour.
- D seek to extend the scope of employment and to facilitate worker retrenchment.Answer: B

35. According to the passage, textile mill workers could not obtain compensation because

- **A** the number of workers available for pressing their claims was not adequate.
- **B** they were not united.
- **C** of the weakness of the struggle.
- **D** the motivation of the leaders was very low.

Answer: A

- 36. According to the passage, the most important aspect of the NCL is that
- **A** it has given a voice to the interests of workers in the unorganized sector.
- **B** it is an apex body of independent trade unions.
- **C** it has 6,25,000 members spread over 10 states in India.
- **D** it is the only body of its kind in India.

Answer: A

Instructions [37 - 40]

Each of these questions has four underlined parts. Identify the part which is not correct.

- A <u>No sooner he left the office</u>
- B then it started
- c raining heavily
- **D** <u>enough to make him completely wet.</u>

Answer: B

- A Even after hearing the leader
- B for a long time
- C the followers could not make out
- **D** which he was talking about.

Answer: D

- A The principal along with the teachers
- B were seen boarding a bus
- c to go to a picnic
- **D** on a national holiday.

Answer: B

- A With the introduction of the new syllabus
- **B** <u>the number of colleges reporting</u>
- C high results are decreasing
- **D** <u>year after year.</u>

Answer: C

Mathematical Skills

- 37. 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
 - Answer: C

Let the sum invested in 5% per annum be x. So, S.I. = prt/100 [S.I.= Simple Interest] x*5*4/100 + (12000-x)*4*6/100 = 2580On solving, we get x = Rs. 7500

- 38. 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

Answer: B

Explanation:

Let the sum of money be P and the rate of interest be r.

By formula,

Amount(A) = (P) Principal * [1 - r/100]^n

 $A = 8P = P * [1+r/100]^3$

On solving, we get r = 100

A = 16P = P * [1+100/100]^t

On solving, we get t = 4 years.

- 39. 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

Answer: C

Explanation:

Let the number of correct answers be C and wrong answers be W.

C + W = 90 ---(1)

5C - 2W = 387 ---(2)

Multiplying equation 1 by 5 and then subtracting, we get

7W = 450 - 387 = 63

W = 9

- 40. 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

Answer: A

Explanation:

Let the speed of the boat be u and that of stream be v.

12/u+v = 3/u-v

4u - 4v = u + v

3u = 5v

45/u+v + 45/u-v = 20

Putting value of u in above equation and solving, we get

- v = 3 km/hr [speed of stream]
- 41. 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

Answer: B

Explanation:

Let the time traveled by the cyclists be x seconds when they meet.

So, distance covered by cyclist 1 = 7x and

distance covered by cyclist 2 = 8x

So, 7x + 8x = 15x = 300 [When the cyclist meet, they would have covered the whole circumference together.]

x = 20 seconds.

42. 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

Α	36	
B	18	
С	9	
D	27	

```
Answer: C
```

Explanation:

Let the number of correct answers be C and wrong answers be W.

C + W = 90 ---(1)

5C - 2W = 387 ---(2)

Multiplying equation 1 by 5 and then subtracting, we get

7W = 450 - 387 = 63

W = 9

- 43. 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

Answer: C

Explanation:

Let the quantity of Rs. 4.50 rice bought be x kgs.

4.5x + 5(50-x) = 240 (according to the question)

250-0.5x = 240

x = 20 kgs

- 44. 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

Answer: A

Explanation:

```
Amount (A) = (P) Principal * [1 - r/100]^n
```

17640 = 16000 * [1-r/100]^2

On solving, we get r = 0.05 = 5 %

Rate of interest = 5% per annum

- 45. 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 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
- Answer: D

Explanation:

Given that the Capacity of Kerosene=(18/900)*1000=20km/ltr

Cost of Petrol=Rs.30/ltr(Given)

Cost of Kerosene=2/3(Cheaper than Petrol)=1/3 (Petrol)=Rs.10/ltr

Let the Quantity of Kerosene is x ltr in 1 ltr of mixture

Capacity of Kerosene=20km/ltr

Capacity of Petrol=40km/ltr

If there is x Ltr Petrol in 1 Ltr

Then,

20(x)+40(1-x)=38

x=0.1 ltr

Cost of mixture = 10(.1) +30(.9)=Rs.28

The Cost of Petrol which I gave was Rs.30 but the Original Amount is Rs.28

Hence the Additional Amount that the Pump Owner was Charging =Rs.30-Rs.28=Rs.2

- 46. A train after travelling 150 km meets with an accident and then proceeds at 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

Answer: B

Explanation:

Let the speed of the train be v km/hr and the total distance travelled be d kms and the time taken to reach the destination if no accident occured = t hours.

150/v + d-150/0.6v = t + 8

510/v + d-510/0.6v = t + 4

Solving, the above equations, we get: Subtract equation 1 from 2,

d = 870 kms

- 47. In an engineering college the average salary of all engineering graduates from Mechanical trade is Rs. 2.45 lacs per annum and that of the engineering graduates from Electronics trade is Rs. 3.56 lacs per annum. The average salary of all Mechanical and Electronics graduates is Rs. 3.12 lacs per annum. Find the least number of Electronics graduates passing out from this institute.
- **A** 43
- **B** 59
- **C** 67
- **D** Cannot be determined

Answer: C

Explanation:

Let the number of Mechanical graduates be m and number of electronics be e.

Σm/m = 2.45

Σe/e = 3.56

Σm + Σe / m + e = 3.12

On solving,

2.45m + 3.56e = 3.12m + 3.12e

0.44e = 0.67m

44e = 67m

Least value of e is when m = 44, as 67 is a prime number

So, least value of electronics students = 67.

- 48. There are two identical vessels X and Y. Y is filled with water to the brim and X is empty. There are two pails A and B, such that B can hold half as much water as A. One operation is said to be executed when water is transferred from Y to X using B once. If A can hold 1/2 a litre of water and it takes 40 operations to equate the water level in X and Y, what is the total volume of water in the system ?
- A 20 litres
- **B** 10 litres
- C 40 litres
- **D** $20\frac{3}{4}$
 - Answer: C

Explanation:

A can hold 1/2 a litre of water, so B = 1/4 lt of water can hold.

In one complete operation, water transferred = 1 - (1/2) = 1/2 liters as 1 liter goes from Y to X. So 1 liter is contained in X.

But 1/2 liter goes from X to Y as well. So net 1/2 liters remain in X. If it takes 40 operations to equate water level,

 \therefore 40 × (1/2) = 20 liters is contained in X and Y.

Hence total volume of water in the system is 40 litres

- 49. In a class with a certain number of students, if one student weighing 50 kg is added then the average weight of the class increases by 1 kg. If one more student weighing 50 kg is added then the average weight of the class increases by 1 kg. If one more student weighing 50 kg is added then the average weight of the class increase by 1.5 kg over the original average. What is the original average weight (in kg) of the class. ?
- **A** 4
- **B** 46
- **C** 2
- **D** 47

Answer: D

Explanation:

Let the number of students in class be n and average weight be A kgs and S be the sum of ages of all the students.

So, $\Sigma S/n = A$ $\Sigma S + 50/n+1 = A + 1$ $\Sigma S + 50 + 50/n+2 = A + 2$ $\Sigma S + 50 + 50 + 50/n+3 = A + 3.5$ On solving, the above equations, we get A = 47

- 50. Rahul can row a certain distance downstream in 6 hours and return the same distance in 9 hours. If the speed of Rahul in still water is 12 km/hr, find the speed of the stream.
- A 2 km/hr
- **B** 2.4 km/hr
- **C** 3 km/hr
- D Data inadequate

Answer: B

Explanation:

Let the speed of Rahul be u and that of stream be v and the distance travelled be d.

d/u+v = 6 and d/u-v = 9

Given u = 12 km/hr

6u + 6v = d and d = 9u - 9v

So, 6u + 6v = 9u - 9v

3u = 15v, so u = 5v

```
v = 12/5 = 2.4 km/hr
```

- 51. Large, medium and small ships are used to bring water. 4 large ships carry as much water as 7 small ships. 3 medium ships carry the same amount of water as 2 large ships, and 1 small ship. 15 large, 7 medium and 14 small ships each made 36 journeys and brought a certain quantity of water. In how many journeys would 12 large, 14 medium and 21 small ships bring the same quantity ?
- **A** 32

B 25

C 29

Answer: C

Explanation:

Let the large ships be l, medium be m and small be s.

From the information given , we get

4l = 7s

3m = 2l + 1s

6m = 4l + 2s, so 6m = 9s, so 2m = 3s, m = 3s/2 = 6l/7

Total quantity of water in 36 journeys:

t = 36*[15l + 7m + 14s] = 36*[15l+6l+8l] = 36*29l

t = x [12l+14m+21s], x = number of journeys

36*29I = x[12I + 12I + 12I] = 36I*x

x = 29 journeys

- 52. A man can row 4.5 km/hr in still water and he finds that it takes him twice as long to row up as to row down the river. Find the rate of the stream.
- A 1.5 km/hr
- B 2 km/hr
- C 2.5 km/hr
- **D** 1.75 km/hr

Answer: A

Explanation:

Given u (still water speed) = 4.5 km/hr

d/u-v = 2 d/u+v

2u - 2v = u + v

u = 3v

v = u/3 = 4.5/3 = 1.5 km/hr

53. The work done by a woman in 8 hours is equal to the work done by a man in 6 hours and by a boy in 12 hours. If working 6 hours per day 9 men can complete a work in 6 days, then in how many days can 12 men, 12 women and 12 boys together finish the same work, working 8 hours per day ?

A
$$3^2_{3}$$
 days

B 4^{1}_{2} days

c ^{3days}

D $1^{1}_{2} days$

Answer: D

Explanation:

Let men be M and boy be B and women be W.

6M=8F=12B

So,

```
3m =4f =6b .....(1)
X = 12m+12f+12b ......(2)
```

On solving, we get

1m=2b 1f=6/4b

So putting in equation 2, we get

X= 24b + 18b + 12b

X = 54b

So, 9m *6 *6 = X * 8*D (let D be the number of days)

54*6 * 2b =54b*8*D

D = 3/2 = 1.5 days

- 54. A team of workers was employed by a contractor who undertook to finish 360 pieces of an article in a certain number of days. Making four more pieces per day than was planned, they could complete the job a day ahead of schedule. How many days did they take to complete the job ?
- A 10 days
- B 8 days
- C 9 days
- D 12 days

Answer: A

Explanation:

let number of articles produced per day be x and number of days be d.

dx = 360 (1) now, (d-1)*(4+x) = 360 4d + xd -4 -x = 360 4d + xd -x = 364 4d - x = 364 - 360 = 4

4d - x = 4 (2)

Solving equations 1 and 2, we get

d = 10 days.

55. The average monthly salary of employees, consisting of officers and workers, of an organisation is Rs. 3000. The average salary of an officer is Rs. 10,000 while that of a worker is Rs. 2000 per month. If there are total 400 employees in the organisation, find the number of officers.

A 60

B 50

- **C** 80
- **D** 40

Answer: B

Explanation:

Let the number of officers and workers be o and w respectively.

 Σ o/o = 10000 Σ w/w = 2000 Σ o + Σ w /w + o = 3000 and w + o = 400 (1) Solving, we get 10000o + 2000w = 3000w + 3000o So, 7o = w From equation 1, we get 8o = 400, o = 50 Number of officers = 50

- 56. Two vessels contain mixtures of milk and water in the ratio of 8 : 1 and 1 : 5 respectively. The contents of both of these are mixed in a specific ratio into a third vessel. How much mixture must be drawn from the second vessel to fill the third vessel (capacity 26 gallons) completely in order that the resulting mixture may be half milk and half water ?
- A 12 gallons
- B 14 gallons
- C 10 gallons
- D 13 gallons

Answer: B

Explanation:

The ratio of milk to total volume of the mixture in the 3 vessels is

8/9, 1/6 and 1/2.

By alligation, we get the ratio in which the two mixtures are mixed as 6:7.

Since the total quantity is 26, the quantity from the 2nd vessel is =

(7/13) * 26

= 14 gallons.

- 57. Amit Kumar got a 4-digit pass code (which is formed out of the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, 9) of his ATM card from ICICI Bank. But after the 50th day he lost the pass code and also forgot the number. How many maximum number of trials may he have to take to get the right number? 0 can be the beginning of the code number.
- **A** 10!
- **B** 10^4
- **C** 9⁴
- **D** 9!

Answer: B

Explanation:

Since it is a 4 digit pass code, so

1st digit : 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, can be any of the following. So 10 ways

2nd digit : 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, can be any of the following. So 10 ways

3rd digit : 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, can be any of the following. So 10 ways

4th digit : 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, can be any of the following. So 10 ways

So, 10^4 ways.

- 58. The length of a ladder is exactly equal to the height of the wall it is leaning against. If the lower end of the ladder is kept on a stool of height 3 m and the stool is kept 9 m away from the wall, the upper end of the ladder coincides with the top of the wall. Then the height of the wall is
- **A** 15 m
- **B** 12 m
- **C** 18 m
- **D** 11 m

Answer: A

Explanation:

Let the length of the ladder and the wall be x. So, By pythagoras theorem, $x^2 = (x-3)^2 + 9^2$ Solving, we get x = 15 m.

- 59. If three equal cubes are placed adjacently in a row, then the ratio of the total surface area of the new cuboid to that of the sum of the surface areas of the three cubes will be
- A 5:9B 1:3
- **C** 2:3
- **D** 7:9

Answer: D

Explanation:

Cube:

Let the sides of the cube be a.

Surface area = 6a^2

Summation of Surface area of 3 cubes = 18a^2

New cuboid:

length (l) = 3a

breadth(b) = a

height(h) = a

Surface area = 2[lb+bh+hl] = 2[3a*a + a*a + a*3a] = 14a^2

Required answer = 14 a^2/18a^2 = 7:9

- 60. An iron cube of size 10 cm is hammered into a rectangular sheet of thickness 0.5 cm. If the sides of the sheet be in the ratio 1 : 5, then the sides are
- **A** 20 cm, 100 cm
- **B** 10 cm, 50 cm
- **C** 40 cm, 200 cm
- **D** None of these**Answer:** A

Let one side be k and other be 5k of the rectangular sheet.

Since cube [of side a] is hammered into sheet, their volume remains same.

a^3 = Area*thickness

a^3 = length*breadth*thickness

10^3 = k*5k*0.5

k^2 = 400

k = 20 cm

One side is 20 cm and other is 100 cm.

- 61. A portion of a 30 m long tree is broken by a tornado and the top strikes the ground making an angle of 30° with the ground level. The height of the point where the tree is broken is equal to
- **A** 10 m

B
$$\sqrt[30]{\sqrt{3}}m$$

- **c** $30\sqrt{3}m$
- **D** 60 m

Answer: A

Explanation:

Let the height of the point from the ground be h metres.

The hypotenuse formed = 30 - h

So, In right angled triangle,

 $\sin 30 = \text{perpendicular} / \text{hypotenuse} = h/30-h$

1/2 = h/30-h

On solving, we get h = 10 m

- 62. Fresh grapes contain 80 per cent water while dry grapes contain 10 per cent water. If the weight of dry grapes is 250 kg what was its total weight when it was fresh ?
- **A** 1000 kg
- **B** 1125 kg
- **C** 1225 kg
- **D** 1100 kg **Answer:** B

Solid part of fresh grapes = Solid part of dry grapes

let the weight of fresh grapes be x kgs

x * 0.2 = 250 * 0.9 [fresh grapes have 20% water, so rest solid part]

```
x = 1125 kgs
```

- 63. A dealer buys dry fruit at the rate of Rs. 100, Rs 80 and Rs. 60 per kg. He bought them in the ratio 12 : 15 : 20 by weight. He in total gets 20% profit by selling the first two and at last he finds he has no gain no loss in selling the whole quantity which he had. What was the percentage loss he suffered for the third quantity ?
- **A** 40%
- **B** 20%
- **C** 30%
- **D** 50%

```
Answer: A
```

Explanation:

Let the quantity bought by him be 12x,15x and 20x.

So,Selling Price of the first two be a,b and that of third be c.

```
a + b = 120% of (100*12x + 80*15x)
a + b = 2880x
a + b + c = 100*12x + 80*15x + 60*20x = 3600x
```

- c = 3600x 2880x
- c = 720x

and CP = 20x*60 = 1200x

Loss% = CP-SP/ CP *100

L % = 1200X-720X/1200X = 480/1200

LOSS % = 40%

- 64. A man sitting in a train travelling at the rate of 50 km/hr observes that it takes 9 sec for a goods train travelling in the opposite direction to pass him. If the goods train in 187.5 m long, find its speed.
- **A** 40 km/hr
- **B** 25 km/hr
- C 35 km/hr
- D 36 km/hr

```
Answer: B
```

Time taken = Distance(length of train)/Relative speed Let speed of the train be v km/hr 9/3600 = 0.1875/[50 + v]On solving, we get v = 25 km/hr

65. A train 300 m long is running at a speed of 90 km/hr. How many seconds will it take to cross a 200 m long train running in the opposite direction at a speed of 60 km/hr ?

Α	$7\frac{1}{5}$	
B	60	
С	12	
D	20	

Answer: C

Explanation:

Time taken = Sum of length of trains/ Relative speed

Sum of length = 200 + 300 = 500

Relative speed = Addition of the two speeds, since trains travelling in opposite direction.

t = 500/(90+60)*5/18

t = 12 seconds

Hence C

- 66. Out of eight crew members three particular members can sit only on the left side. Another two particular members can sit only on the right side. Find the number of ways in which the crew can be arranged so that four men can sit on each side.
- **A** 864
- **B** 865
- **C** 863
- **D** 1728

```
Answer: D
```

Explanation:

By permutation and Combination, we get

No. of ways our men can sit on left side = 3C2 * 4!

No. of ways our men can sit on right side = 4!

Total ways = Multiplication of the above two

= 3C2*4!*4!

= 1728

Hence D

- 67. Three pipes are made of different shapes. The cross-sections of the pipes are an equilateral triangle, a hexagon and a circle. The perimeter of each of these cross-sections is equal. The flow through the pipes is proportional to the area of cross section. If it takes 8 minutes for the triangular pipe to fill up the tank, what will be the difference in the times taken by the hexagonal and circular pipes?
- A 45 seconds
- **B** 1 minute
- C 0.5 minutes
- **D** 7.9 minutes

Answer: C

Explanation: Let the sides of triangle be a, that of hexagon be b and circle be c.

Given:

```
3a = 6b = 2\pi r
```

Given: flow rate is proportional to area, so, Flow rate(F) = k Area

Area of triangle = $\sqrt{3}/4$ a²

Area of hexagon = $3\sqrt{3}/8 a^2$

Area of circle = πr^2 = $9a^2/4\pi$

If triangular pipe takes 480 seconds, hexagonal and circular pipe will take 320 and 290 seconds.

Required difference = 30 seconds = 0.5 minutes.

- 68. The Qutab Minar casts a shadow 150 m long at the same time when the Vikas Minar casts a shadow 120 m long on the ground. If the height of the Vikas Minar is 80 m, find the height of the Qutab Minar.
- **A** 100 m
- **B** 180 m
- **C** 150 m
- **D** 120 m

Answer: A

Explanation:

The triangles formed by Qutub and Vikas minar will be similar, so

Let x be the height of the Qutub minar

150/120 = x/80

On solving, we get

x = 100 m

- 69. Due to global recession starting in January, Ram's monthly salary of Rs. 8000 was cut by 10%. The monthly expenses, which were Rs. 6000, increased at the rate of 5% per month. Since which month will he have no savings if the recession lasted for a year ?
- A April
- **B** March
- C May
- **D** June

Answer: C

Explanation:

Jan:

```
Rams's monthly salary in Jan = 0.9 * 8000 = 7200
```

Expenses = 6000

Feb:

Expenses = 6000*105/100 = 6300

March:

Expenses = 6300*105/100 = 6615

April:

Expenses = 6615*105/100 = 6945.75

May:

Expenses = 6945.75*105/100 > 7200

- So, The month starting will be May in which he have no savings if the recession lasted for a year.
- 70. An oil refinery takes 100 litres of crude oil as input and after refining for 1 hour gives certain amount of output oil X litres. This can be sold in the market at a profit of Rs 30 per litre. If this oil is further refined for $\frac{1}{2}$ hour it gives oil Y litres. This can be sold at a profit of Rs. 50 per litre. Output and input ratio at both the stages is 90%. The maximum amount that can be earned from 1000 litres of crude input is

B Rs. 27,000

C Rs. 40,000

D Rs. 40,500

Answer: D

Explanation:

Case 1: Input = 1000L Output = 1000*.9 = 900L Profit = 900*30 = 27000 Case 2: Input = 900L Output = 900*.9 = 810L Profit = 810*50 = 40500 rupees.

- 71. A mixture (40 litres) contains tonic and water in the ratio 3 : 1 to make the ratio 2 : 1, how much additional amount of water is required?
- A 5 litres

B 4 litres

- C 3 litres
- **D** 2 litres

Answer: A

Explanation: Mixture of tonic and water:

Tonic = 30 l

Water = 10I

Now,

quantity of water = 10 + x (let x be added)

10 + x = 1/3 * (40 + x)

Solving for x, we get

x = 5 litres.

72. If 11,109,999 is divided by 1111, then what is the remainder?

- **A** 1098
- **B** 11888
- **C** 1010
- **D** 1110

Answer: D

Explanation:

Since we can see that 1111*1000

= 1111000, which is greater than 11109999, so we will see for a lesser quotient.

On simple dividing, we get quotient is 9999 and remainder is 1110.

- 73. If an angle of a triangle remains unchanged but each of its two including side is doubled, then by what factor does the area get multiplied ?
- **A** 2
- **B** 3
- **C** 4
- **D** 6

Answer: C

Explanation:

Let the area of triangle be A.

A = 1/2*b*c *sin A (b,c are sides which have included angle A)

b,c is doubled and A remains same

A' (new area) = 1/2*2b*2c*sinA

A' = 2bcsinA = 4A

New Area becomes 4 times of previous one.

- 74. A number when divided by 765 leaves a remainder 42. What will be the remainder if the number is divided by 17 ?
- **A** 8

B 7

- **C** 6
- **D** 5
Answer: A

Explanation:

Let the number be N.

N = 765k + 42

Let k = 1, so N = 807

When 807 is divided by 17, remainder = 8

75. If m and n are natural numbers such that $2^m - 2^n = 960$, what is the value of m ?

- **A** 10
- **B** 12
- **C** 16
- **D** Cannot be determined

Answer: A

Explanation:

Since 2^10 is 1024, so we will look for value of m to be greater and equal to 10.

Let m = 10, then

1024-960 = 64, [equation given]

Since 64 is of the form 2[^]m, then

so n = 6, satisfies the equation.

Hence A

- 76. The radius of a cylindrical cistern is 10 metres and its height is 15 metres. Initially the cistern is empty, we start filling the cistern with water through a pipe whose diameter is 50 cm, water is coming out of the pipe with a velocity of 5 m/s. How many minutes will it take in filling the cistern with water?
- **A** 20
- **B** 40
- **C** 60
- **D** 80

Answer: D

Explanation:

Since Flow rate = Volume = Area * height Volume of cylinder = Area of pipe * velocity * time time = $\pi r^2h/\pi R^2 * v$ t = 4800 seconds = 80 minutes

Data Analysis & Sufficiency

Instructions [77 - 80]

Answer these questions based on the information provided in the tables.

SECTOR COMPOSITION OF INDIA'S EXPORTS (IN PERCENTAGE)						
Sector	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	
Agriculture and Allied	17.9	18.2	18.2	13.4	12.1	
Ores and Minerals	5.2	1.8	2.7	2.8	3.6	
Petroleum and Crude	2.3	1.4	3.2	4.9	4.5	
Manufactured Goods	73.6	77.6	74.7	76.1	77.4	
Other Products	1	1	1.2	2.8	2.4	
Productwise Composition of Exports of the Manufactured Goods Sector (in percentage)						
Product	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	
Leather Products	7.1	5.5	5	4.4	3.8	
Leather Products Chemicals	7.1 8.8	5.5 7.8	5 9.2	4.4 9.8	3.8 10.1	
Leather Products Chemicals Engineering Goods	7.1 8.8 12.5	5.5 7.8 13.6	5 9.2 13.2	4.4 9.8 15.7	3.8 10.1 16.6	
Leather Products Chemicals Engineering Goods Textiles	7.1 8.8 12.5 14	5.5 7.8 13.6 13.7	5 9.2 13.2 13.6	4.4 9.8 15.7 11.8	3.8 10.1 16.6 11.8	
Leather Products Chemicals Engineering Goods Textiles Readymade Garments	7.1 8.8 12.5 14 12.3	5.5 7.8 13.6 13.7 11.6	5 9.2 13.2 13.6 13.1	4.4 9.8 15.7 11.8 11.4	3.8 10.1 16.6 11.8 10.4	
Leather Products Chemicals Engineering Goods Textiles Readymade Garments Gems and Jewellery	7.1 8.8 12.5 14 12.3 15.3	5.5 7.8 13.6 13.7 11.6 16.6	5 9.2 13.2 13.6 13.1 17.8	4.4 9.8 15.7 11.8 11.4 16.8	3.8 10.1 16.6 11.8 10.4 18.3	
Leather Products Chemicals Engineering Goods Textiles Readymade Garments Gems and Jewellery Others	7.1 8.8 12.5 14 12.3 15.3 30	5.5 7.8 13.6 13.7 11.6 16.6 31.2	5 9.2 13.2 13.6 13.1 17.8 28.1	4.4 9.8 15.7 11.8 11.4 16.8 30.1	3.8 10.1 16.6 11.8 10.4 18.3 29	

- 77. By what percentage has the exports of petroleum and crude in India increased from 1998-1999 to 2002-2003 ?
- **A** 95.65%
- **B** 75.85%
- **C** 81.45%
- **D** Data inadequate

Answer: A

Explanation:

Increased % = Increase/Intial quantity *100

Final quantity = 4.5

Initial quantity = 2.3

Increase % = 4.5-2.3/2.3

= 2.2/2.3

= 95.65%

Hence A

- 78. In 2000-2001 if \$ 224.10 million worth of leather goods were exported from India then the total exports of India were (in \$ million)
- **A** \$4482
- **B** \$5000
- **C** \$6000
- **D** \$8000

Answer: A

Explanation:

Let total exports be t.

5% of total exports = Worth of leather goods were exported from India

5/100 * t = 224.10

On solving, t = \$4482

Hence A

- 79. If the exports of gems and jewellery in 1999-2000 were approximately \$ 300 million then what is the value (in millions) of the exports of ores and minerals in 2002-2003 given that the value of India's exports has increased by 150% from 1999-2000 to 2002-2003 ?
- **A** \$184
- **B** \$125
- **C** \$179
- D None of these

Answer: B

Explanation:

Let the total exports in 1999-2000 be t.

Manufacturing goods = 77.6/100 * t

gems = 16.6/100 * 77.6/100 * t = 300

t = 2328.9

India's exports in 2002-2003 = 1.5 * 1960.78 = 3493.35

What is the value (in millions) of the exports of ores and minerals in $2002-2003 = 3.6/100 \times 3493.36 = 125.76$

80. In India's exports increased by 20% from 1998-1999 to 2002-2003, then find the approximate percentage increase in the exports of the engineering goods from 1998-1999 to 2002-2003

- **B** 57%
- **C** 78%

D Cannot be determined

Answer: A

Explanation:

1998-99

India exports be t

Manufacturing goods = 73.6/100 * t

engineering goods = 12.5/100 * 73.6/100 * t = 920t/10000

2002-03

India exports = 1.2t

Manufacturing goods = 77.4/100 *1.2 t

engineering goods = 16.6/100 * 77.4/100 *1.2 t = 1541.808t/100

% increase = 1541.808-920/920 = 67.5%

Instructions [81 - 85]

Study the table below to answer these questions.

PRODUCTION OF PLASTIC MATERIAL						
Month	Polypropylene(000 tonnes		Polyethylene (000 tonnes)		Nylon (000 tonnes)	
	2003-2004	2004-2005	2003-2004	2004-2005	2003-2004	2004-2005
March	17.6	20.8	104	40	3150	2900
April	16.4	20.6	100	88	3050	2850
May	16	21.4	80	96	3000	2900
June	15.4	19.2	88	80	2520	2800
July	16	19.2	90	84	2600	2700
August	16.6	21.4	94	80	2650	2750
September	16.4	20.8	98	84	2500	2650
October	17.8	23	100	80	2200	3000
November	16.4	22.6	104	92	2000	2950
December	17.6	21.8	108	88	2250	3000
January	20	20	96	100	2750	2350
February	19.8	17.8	20	96	2600	2250
March	21	—	40	96	2900	—

- 81. In 2003-2004, the ratio of the difference between the maximum and the minimum production of polyethylene, to the difference between the maximum and minimum production of polypropylene, is nearly
- **A** 15
- **B** 14
- **C** 16

Answer: C

Explanation:

polyethylene:

- Minimum = 20
- Maximum = 108
- Difference = 88
- polypropylene
- Minimum = 16
- Maximum = 21
- Difference = 5

Ratio = 88/5 = 17.6

- 82. The ratio of the maximum production of polyethylene in 2004-2005 to the minimum production of polyethylene in 2003-2004 is
- **A** 5
- **B** 4.8
- **C** 5.4
- **D** 4.2

Answer: A

Explanation:

maximum production of polyethylene in 2004-2005 = 100

minimum production of polyethylene in 2003-2004 = 20

Ratio = 100/20 = 5

- 83. The maximum number of times the production in 2003-2004 equals the production in 2004-2005 is for which product?
- A Polyethylene
- B Polypropylene
- C Nylon
- **D** None of these**Answer:** B

Explanation:

Number of times equal:

Polyethylene = 0

Polypropylene = 1

So, Polypropylene is the answer.

84. For polyethylene, the production in 2003-2004 is greater than the production in 2004-2005 for how many months ?

Α	5
	_

- **B** 8
- **C** 10
- **D** 9

Answer: D

Explanation:

For polyethylene, the production in 2003-2004 is greater than the production in 2004-2005 for:

March

April,

June,

July,

August

September

October

November

December.

Hence total of 9 months.

- 85. The difference between the minimum production of polypropylene in 2004-2005 and the minimum production of polypropylene in 2003-2004 is how many times the difference in July's production of polyethylene (of the two Years)?
- A 2 times
- **B** 3 times
- **c** equal
- **D** 0.4 times

Answer: D

Explanation:

Minimum production of polypropylene in 2004-2005 = 17.8

Minimum production of polypropylene in 2003-2004 = 15.4

Difference = 2.4

July production = 90 - 84 = 6

Required answer = 2.4/6 = 0.4

Instructions [86 - 91]

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	104500	800	27950	
2000	19000	11000	800	30800	

86. 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 200

Answer: A

Explanation:

Augmented means increase.

We have to observe the table and find out the two years when the capacities were augmented in all the sectors.

The years are 1993 and 1998.

Hence A

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

- **A** 1997
- **B** 1991
- **C** 1999

D ¹⁹⁹⁵

Answer: D

Explanation:

We have to check year wise:

For 1991: 6610-6390 / 6390 = 3.44%

By observing the table, we can see that the difference between year 1995 and 1994 is least.

So, for year 1995: 8500-7530/7530 = 12.88 %

- 88. 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

Answer: B

Explanation:

Nuclear power in the year 2000 = 800

Total capacity in year 2000 = 30800

Required answer = % share = 800/30800 = 0.0259

= 2.59%

Hence B

- 89. 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
 - Answer: B

Explanation:

Total power generated = 40% of Thermal + 50% of Hydel + 90% of Nuclear

Thermal = 15200 MW

Hydel = 10200 MW

```
Nuclear = 800 MW
Power generated = 40/100 * 15200 + 50/100 * 10200 + 90/100 * 800 = 11900 MW
Hence B
```

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

- **A** 45
- **B** 50
- **C** 26
- **D** 54

Answer: D

Explanation:

Thermal Installed capacity in 1990 = 7900

Total installed capacity in 1990 = 14710

Percentage share of thermal in total installed capacity: 7900/14710

= 53.7% nearly equal to 54%

Hence D

91. The growth in the installed thermal capacity between 1991 and 1999 was approximately

- **A** 51%
- **B** 130%
- **C** 92%
- **D** 103%

Answer: D

Explanation:

Thermal capacity in 1991 = 8200

Thermal capacity in 1999 = 16700

Growth = difference between final and initial/initial

Growth = 16700 - 8200/8200 = 1.03

Growth = 103%

Hence D

Instructions [92 - 96]

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

- 92. 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

Answer: B

Explanation:

For year 1998: Total value = 250 + 225 = 475Required value = 1.1 * 475 = 522.5For year 1999: Total value = 275+235+250+300 = 1060Required value = 1.1 * 1.1*1060 = 1282.6For year 2000: Total value = 250Required value = 1.1 * 1.1*1.1*250 = 332.75Total required value = 2137.85

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

- A IHCL
- **B** Raheja Group
- C Lokhandwala Group
- **D** ITC

Answer: C

Explanation:

IHCL: 600/275 = 2.18

Raheja Group:500/250 = 2

Lokhandwala Group: 536/225 = 2.38

ITC:300/300 = 1

So Lokhandwala Group is the answer.

- 94. 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

Answer: C

Explanation:

For year 1998:

- Total value = Bombay hotels + Lokhandwala group
- Total value = 250 + 225 = 475
- Required value = 10 % increase in total value
- 1.1 * 475 = 522.5
- 95. What is the cost incurred (in Rs. crore) for projects completed in 1999?
- A Rs 1282.6 crore
- B Rs 1270.0 crore
- C Rs 1805.1 crore
- **D** Rs 1535.0 crore

Answer: A

Explanation:

For year 1999:

Total value = IHCL + Leela hotel + Raheja + ITC

Total value = 275+235+250+300 = 1060

Required value = 1.1 * 1.1*1060 { since increase of 10% over 1998 and 1997]

= 1282.6

Hence A

96. Which of the following had the least cost per room?

- A Lokhandwala Group
- B Raheja Group
- C IHCL
- **D** ITC

Answer: A

Explanation:

Lokhandwala Group: 225/536 = 0.42

Raheja Group: 250/500 = 0.5

IHCL: 275/600 = 0.458

ITC: 300/300 = 1

So, the required answer is Lokhandwala Group.

Instructions [97 - 99]

These questions are based on the pie charts and the bar graph given below :







- 97. By what amount is the life insurance sold in Italy through agents more/less than the life insurance sold in Spain through brokers and agents ?
- A More by \$ 30 million
- **B** Less by \$ 10 million
- C Less by \$ 30 million
- **D** More by \$ 20 million

Answer: C

Explanation:

Life insurance in Italy = 2500

Through agents = 14% of 2500 = 350

Life insurance in Spain = 2000

Through agents and brokers = 14+5 = 19% of 2000 = 380

So, Life insurance in Italy is 30 million dollars less than Life insurance in Spain.

- 98. If it is known that 12.5% of the total life insurance sold in the countries is listed for term insurance, then what is the approximate value of non-term insurance sold in these countries for the year 2002?
- **A** \$ 6480 million
- **B** \$ 10060 million
- **C** \$ 70400 million
- D Data insufficient

Answer: C

Explanation:

```
Total life insurance in all the countries = Italy + Spain + India + China + Pakistan + Russia + USA
```

```
Total value = 2500+2000+15000+10000+1000+20000+30000
```

= 80500

Non term insurance% = 100-12.5 = 87.5%

Value of non term insurance = (100-12.5)% of 80500 = 70437.50

Hence C

- 99. The split-up of sales of life insurance by distribution channels for India in 2002 is the same as that of Spain. If the insurance agents in India are paid a commission of 0.5% of their sales, then what is the amount of commission earned by them ?
- **A** \$ 9.75 million
- **B** \$ 9.5 million
- **C** \$ 10.5 million
- **D** \$13.25 million

Answer: C

Explanation:

Sale of Life insurance in India = 15000

Sale by insurance agent in India = 14% of 15000 = 2100

Commission = 0.5% of 2100 = 10.5 million dollars.

Instructions [100 - 104]

Study the following graphs to answer these questions.





- 00. The advertisement cost of colour page per thousand copies for Business world has, from 1997 to 1998
- A decreased by Rs. 200
- **B** remained the same
- C increased by Rs. 466
- D increased by Rs. 200

Answer: C

Explanation:

Advertisement cost of colour page per thousand copies for Business world in:

1997:

5000/25000 * 1000 = 200

1998:

20000/30000 * 1000 = 666.67

So, 1998>1997, so increase

Increase = 666.67 - 200 = 466.67

01. During the years 1997-99, the magazine that has shown maximum percentage growth in circulation has been

- A Dalal Street journal
- B Business India
- C Business World
- **D** Fortune India

Answer: A

Explanation: Dalal Street journal: 49000-18000 / 18000 = 172.22% growth Business India: 69000-45000/45000 = 53.33% growth Business World: 32000-25000/25000 = 28% growth Fortune India: 31000-20000/20000 = 55% growth

Hence Dalal Street journal is the answer.

02. In 1999, if Fortune India were to charge the same rate to its advertisers as Dalal street Journal was charging a year ago, their cost of advertisement per thousand copies in Fortune India would be

Α	14	0
		-

B 350

- **C** 400
- **D** 250

Answer: B

Explanation:

1998 Dalal Street:

Cost of advertisement per thousand copies = 14000/40000 * 1000 = 350

1999 Fortune India :

Cost of advertisement per thousand copies = 350 (same as Dalal street)

03. In 1998, the advertisement cost for colour page per thousand copies was the lowest for

- A Dalal Street Journal
- B Business India

- c Business world
- **D** Fortune India

Answer: A

Explanation: Dalal Street Journal: 14000/40000*1000 = 350 Business India 30000/60000*1000 = 500 Business world 20000/30000*1000 = 666.67 Fortune India 17000/27000*1000 = 629.62 So, lowest for Dalal Street Journal.

04. The total circulation figure for the four magazines together in 1998 was approximately.

- **A** 181,000
- **B** 108,000
- **C** 157,000
- **D** 140,000

Answer: C

Explanation:

Total circulation figure for the four magazines together in 1998 = DSJ + Business World + Business India + FI

Total circulation = 40000 + 60000 + 30000 + 27000

= 157000

Hence C

Instructions [105 - 108]

Each question consists of two quantities, one in column A and other in column B. Compare the both quantities and choose answer option as

05. Column A:

The number of posts needed for a fence 144 feet long and posts are placed 12 feet apart

Column B:

12 Posts

- A if the quantity in Column B is greater
- **B** if the quantity in Column A is greater
- **C** if the two quantities are equal
- **D** if the relationship cannot be determined from the information given

Answer: B

Explanation:

For column A:

We need 144/12 = 12

We need 13 posts as 2 at each ends will also be counted.

So, Quantity A > Quantity B

Hence B

06. Column A:

Time elapsed from 2:55 PM to 3:15 PM on the same afternoon

Column B:

 $^1_{3hour}$

- A if the quantity in Column B is greater
- **B** if the quantity in Column A is greater
- **C** if the two quantities are equal
- **D** if the relationship cannot be determined from the information given

Answer: C

Explanation:

Column A:

Time elapsed from 2:55 PM to 3:15 PM on the same afternoon

Time = 15 + 5 = 20 minutes

= 20/60 = 1/3 hours

Column B:

 $^{1}_{3hour}$

Both equal

- A if the quantity in Column B is greater
- **B** if the quantity in Column A is greater
- **C** if the two quantities are equal
- D if the relationship cannot be determined from the information givenAnswer: C

Explanation:

¹/₃ of 8 = 8/3 = 2.67 $66\frac{2}{3}\%$ of 4 = 200/3 % of 4 = 2/3 * 4 = 2.67 So Quantity A = Quantity B

```
08. Column A:
```

The average of $\sqrt{0.49}, \overset{3}{4},$ and 0.8 Column B: 75%

- A if the quantity in Column B is greater
- **B** if the quantity in Column A is greater
- **C** if the two quantities are equal
- D if the relationship cannot be determined from the information givenAnswer: C

Explanation:

The average of $\sqrt{0.49}$, $\frac{3}{4}$, and 0.8 : $\sqrt{0.49} = \text{root}(49/100) = 7/10 = 0.7$ 3/4 = 0.75Average = 0.7 + 0.75 + 0.8 / 3= 2.25/3 = 0.75 Column B = 75% = 0.75 So, both quantities are equal

Intelligence & Critical Reasoning

Instructions [109 - 111]

These questions are based on the statements given below.

Madhu and Shobha are good in Dramatics and Computer Science. Anjali and Madhu are good in Computer Science and Physics. Anjali, Poonam and Nisha are good in Physics and Mathematics. Poonam and Shobha are good in History and Dramatics.

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

- A Pratibha
- B Asha
- C Madhu
- **D** Namita

Answer: D

- 10. Who is good in History, Physics, Computer Science and Mathematics ?
- A Namita
- **B** Asha
- C Madhu
- **D** Pratibha

Answer: B

- 11. Who is good in Physics, History and Dramatics ?
- A Pratibha
- B Madhu
- **C** Shivani
- D Asha

Answer: A

Instructions [112 - 114]

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.

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

A
C
B
A
C
D
D
B

Answer: B

- 13. Which of the following pairs of friends is good both in English and Sanskrit?
- A A and D
- B A and C
- C and D
- **D** D and B

Answer: C

- 14. Which one of the following friends is good in Sanskrit but poor in Geography?
- **A** A
- **B** D
- **C** C
- **D** B

Answer: A

Instructions [115 - 117]

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 number 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.

15. On Wednesday Mohan Dey can watch

- A the science fiction movie
- **B** the murder mystery
- **C** the spy thriller
- **D** the comedy

Answer: A

16. 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

Answer: D

- 17. 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

Answer: D

Instructions [118 - 120]

Read the following information to answer these questions.

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

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

- **A** Accountancy
- **B** History
- C Urdu

D None of these

Answer: D

19. Which book is at the bottom ?

- **A** Accountancy
- **B** Punjabi
- C Urdu
- **D** Cannot be determined

Answer: A

- 20. Which book is at the top ?
- A Punjabi
- **B** Urdu
- **C** Accountancy
- **D** Cannot be determined

Answer: B

Instructions [121 - 123]

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

21. 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.
- A if only II follows.
- B if only I follows
- **C** if neither I nor II follows.
- **D** if both I and II follow.

Answer: B

22. 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.
- **A** if only II follows.
- **B** if only I follows.
- **C** if neither I nor II follows.
- **D** if both I and II follow.

Answer: B

23. Statements :

A. Some businessmen are rich.

B. Soman is rich.

Conclusions :

- I. Soman is a businessman.
- II. Soman has big farm.
- A if only II follows.
- **B** if only I follows.
- **C** if neither I nor II follows.
- **D** if both I and II follow.

Answer: C

Instructions [124 - 126]

Answer these questions based on the figure which represents the flow of natural gas through pipelines across major cities A, B, C, D and E (in suitable units). Assume that supply equals demand.



- 24. What is the number of units demanded in B?
- **A** 400
- **B** 350
- **C** 450
- **D** 500

Answer: A

- 25. If the number of units demanded in C is 225, what is the value of M?
- **A** 875
- **B** 1075
- **C** 775
- **D** 850

Answer: B

- 26. If the total demand in E is 80% of the demand in A, what is the demand in A?
- **A** 2400
- **B** 2500
- **C** 4500
- **D** None of these

Answer: B

Instructions [127 - 129]

Read the information given below to answer this question.

Six persons A, B, C, D, E and F are going by a car to see Agra. In this group, there are four journalists, a professor, and a doctor. In the group, there are two married couples. No man in the group is a professor and a doctor. 'F' is a sick man and he lives with his married son 'C'. Among the three journalists, the husband of 'D' who looks after his sick father earns more than 'E', who in turn gets more pay than 'B'. Sister of 'E' gets less pay than her husband 'B' but not more than 'A'.

27. Who is the professor in the group?

- **A** B
- **B** A

- **c** C
- D Cannot be determined

Answer: D

- 28. Which of the following is a pair of ladies?
- **A** A, C
- **B** A, D
- **C** A, B
- **D** Cannot be determined

Answer: B

- 29. Who among the following earns the least ?
- **A** B
- **B** A
- **C** C
- **D** D

Answer: B

Instructions [130 - 134]

Each of these consists of question and two statements numbered A and B. Decide whether the data provided in the statement(s) are sufficient/necessary to answer the question. Mark answer as

30. What is the rate of the compound interest?

A. A certain amount invested at the compound interest rate amounts to Rs. 1331.

- B. The amount was invested for a period of three years.
- A If the data in statement B alone are sufficient to answer the question while the data in statement A alone are not sufficient to answer the question.
- **B** If the data in statement A alone are sufficient to answer the question, while the data in statement B alone are not sufficient to answer the question.
- **c** If the data either in statements A alone or in statement B alone are sufficient to answer the question.
- **D** If the data in both the statements A and B together are not sufficient to answer the question.

31. What is the present age of the mother ?

A. Father's age is eight years more than the mother's age.Father got married at the age of 28 years.B. Present age of the father is 30 years. Four years back the ratio of mother's age to father's age was 12 : 13.

- A If the data in statement B alone are sufficient to answer the question while the data in statement A alone are not sufficient to answer the question.
- **B** If the data in statement A alone are sufficient to answer the question, while the data in statement B alone are not sufficient to answer the question.
- **c** If the data either in statements A alone or in statement B alone are sufficient to answer the question.
- **D** If the data in both the statements A and B together are not sufficient to answer the question.

Answer: A

- 32. How many boys are there in the class ?A. The class has total 45 children and ratio of boys to girls is 4 : 5.B. The ratio of girls to boys is 4 : 5 and boys are nine more than the girls.
- A If the data in statement B alone are sufficient to answer the question while the data in statement A alone are not sufficient to answer the question.
- **B** If the data in statement A alone are sufficient to answer the question, while the data in statement B alone are not sufficient to answer the question.
- **c** If the data either in statements A alone or in statement B alone are sufficient to answer the question.
- **D** If the data in both the statements A and B together are not sufficient to answer the question.

Answer: B

- 33. What is the difference between the two digits in a two digit number ?A. The sum of the two digits is 8.
 - B. 1/5 of that number is 15 less than 1/2 of 44.
- A If the data in statement B alone are sufficient to answer the question while the data in statement A alone are not sufficient to answer the question.
- **B** If the data in statement A alone are sufficient to answer the question, while the data in statement B alone are not sufficient to answer the question.

If the data either in statements A alone or in statement B alone are sufficient to answer

- **c** the question.
- **D** If the data in both the statements A and B together are not sufficient to answer the question.

Answer: A

- 34. How much minimum marks will be required to pass an examination?
 A. Student A secured 32% marks in that examination and he failed by 1 mark. Student B secured 36% marks in the same examination and his marks were 1 more than the minimum pass marks.
 B. Student A secured 30% of full marks in the examination and he failed by 2 marks. If he had secured 5 more marks his percentage of marks would have been 40%.
- A If the data in statement B alone are sufficient to answer the question while the data in statement A alone are not sufficient to answer the question.
- **B** If the data in statement A alone are sufficient to answer the question, while the data in statement B alone are not sufficient to answer the question.
- **c** If the data either in statements A alone or in statement B alone are sufficient to answer the question.
- **D** If the data in both the statements A and B together are not sufficient to answer the question.

Answer: C

Instructions [135 - 137]

In each of these questions a few statements are followed by four conclusions numbered I, II, III and IV. Consider the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusion(s) and then decide which of the given conclusion(s) logically follow(s) from the given statements.

35. Statements:

- A. All mirrors are phones.
- B. Some phones are gadgets.
- C. All gadgets are mirrors.

Conclusions :

- I. Some gadgets are phones.
- II. Some gadgets are mirrors.
- III. Some gadgets are not mirrors.
- IV. Some mirrors are phones.

A Only I and II follow

B None follows

- c Only II and II follow
- **D** Either II or IV follow

Answer: B

- 36. Statements :
 A. All rackets are jackets.
 B. No cow is cat.
 C. Only cats are dogs.
 Conclusions :
 I. Some rackets are not cats
 II. Some cats are jackets.
 III. Some rackets are cats.
 IV. No dog is a cow.
- A Only II and IV follow
- **B** Only either I or III and IV follow
- C Only III and IV follow
- **D** Only I and IV follow

Answer: D

- 37. Statements :
 - A. All stairs are lifts.
 - B. No lift is an escalator.
 - C. Some escalators are helicopters.
 - D. Some lifts are planes.

Conclusions :

- I. No stairs is an escalator.
- II. Some helicopters are not escalators.
- III. Some stairs are planes.
- IV. Some helicopters are escalators.
- A Only I and IV follow
- B Only I and either II or IV follow
- **C** Either II or IV follows
- D Only I, III or IV follow

Answer: B

Instructions [138 - 140]

Each of the following incomplete arguments is followed by four sentences. One of the four alternatives (a), (b), (c) and (d) completes the argument in order to justify the conclusion, Pick that out.

38. Man learns through experience as he has initiative by nature

- **A** All who have initiative by nature learn through experience.
- **B** Some who have initiative by nature learn through experience
- **C** None who has initiative by nature learns through experience.
- **D** Only few with initiative learn through experience.

Answer: B

Explanation:

Man has the initiative by nature, hence he learns through experience. So for sure we can say that some people who has initiative by nature , learn through experience

- 39. We now have to fight for peace with some courage and determination as we fought against aggression.
- A All those who have fought against aggression should fight for peace.
- **B** Many are fighting for peace who have fought against aggression.
- **C** Some who are fighting for peace have fought against aggression.
- **D** None is fighting for peace who have fought for aggression.

Answer: C

- 40. Education has produced a vast population able to read but unable to distinguish what is worth reading
- **A** All educated people can distinguish worth reading materials.
- **B** Many educated people cannot distinguish worth reading materials.
- **C** As much as educated people are there, it is easy to distinguish worth reading materials.
- **D** All those who are educated cannot distinguish the materials worth reading.

Answer: B

Instructions [141 - 143]

Each question has a main statement, followed by four statements labelled A, B, C and D. Choose the ordered pair of statements where the first statement implies the second, and the two statements are logically consistent with the main statement

- 41. Every player will become a champ.
 - A. Rajesh is a player.
 - B. Rajesh will become a champ.
 - C. Rajesh is not a player.
 - D. Rajesh will not become a champ.
- **A** DA
- B AD
- **C** CD
- **D** DC

Answer: D

Explanation:

The main statement says that "every player will become a champ". Now if Rajesh will not become a champ, then obviously he will not be a player. Hence DC is logically consistent

- 42. You can find Chinese toys only in china.
 - A. I didn't find Chinese toys.
 - B. I found Chinese toys.
 - C. I went to the fair.
 - D. I didn't go to China.
- A CB
- **B** CD
- **C** CA
- **D** AD

Answer: C

- 43. Only in Africa, can you see the African elephant
 - A. You went to Africa.
 - B. You didn't go to Africa.
 - C. You saw the African elephant.
 - D. You didn't see the African elephant.
- **A** DB
- B AC
- **C** AD
- **D** BD

Answer: B

Instructions [144 - 146]

Answer these questions independent of each other.

- 44. From a point, Rajneesh started walking towards east and walked 35 m. He then turned towards his right and walked 20 m and he again turned right and walked 35 m. Finally he turned to his left and walked 20 m and he reached his destination. Now, how far is he from his starting point ?
- **A** 55 m
- **B** 50 m
- **C** 20 m
- **D** 40 m

Answer: D

- 45. Rama remembers that she met her brother on Saturday, which was after the 20th day of a particular month. If the 1st day of that month was Tuesday, then on which date did Rama meet her brother ?
- **A** 24th
- **B** 23rd
- **C** 25th
- **D** None of these

Answer: D

- 46. Introducing Rajesh, Neha said, his brother's father is the only son of my grandfather, How is Neha related to Rajesh ?
- A Daughter
- **B** Sister
- **C** Mother
- **D** Niece

Answer: B

47. A directional post is erected on a crossing. In an accident, it was turned in such a way that the arrow which was first showing east is now showing south. A passerby went in a wrong direction thinking it is west. In which direction is he actually travelling now ?

- A North
- **B** South
- **C** East
- D West

Answer: B

48. There are eight poets A, B, C, D, E, F, G and H. A, B, C and D are medieval poets whereas E, F, G and H are modern poets. Questions on modern poets and medieval poets are set in the question paper every alternate year. Among the modern poets, question-setters who like E also like F and those who like G also like H. The question-setter has written a book on F and so he does not like to ask any question on F. Last year there was a question on A. On which poet will be the probable question this year ?

Α	F	
B	Е	
С	D	
D	С	

Answer: B

- 49. There are five books A, B, C, D and E. Book C lies above D. Book E is below A; D is above A; B is below E. Which is at the bottom ?
- **A** B
- **B** E
- **C** A
- **D** C

Answer: A

- 50. A one -rupee coin is placed on a plain paper. How many coins of the same size can be placed round it so that each one touches the central and adjacent coins ?
- **A** 3
- **B** 4
- **C** 7

D 6

Answer: D

- 51. After a get-together every person present shakes the hand of every other person. If there were 105 hands shakes in all, how many persons were present in the party?
- **A** 14
- **B** 13
- **C** 15
- **D** 16

Answer: C

- 52. In a queue I am the last person while my friend is seventh from the front. If the person exactly between me and my friend is on the 23rd position from the front, what is my position in the queue ?
- **A** 37
- **B** 36
- **C** 38
- **D** 39

Answer: D

- 53. A cube is to be coloured in such a way as to avoid the same colour on adjacent surfaces. What is the minimum number of colours you will require ?
- A Four
- **B** Three
- C Six
- **D** Nine

Answer: B

- 54. Ram's age was square of a number last year and it will be cube of a number next year. How long must he wait before his age is again the cube of a number ?
- A 10 years
- **B** 39 years

- c 38 years
- **D** 64 years

Answer: C

55. An office has as many four-legged chairs and as many fourlegged tables as workers, and as many three-legged stools as four-legged almirahs. If the number of stools be one more than the number of workers and the total number of legs be 585, the number of workers in the office are ?

A 17

B 34

- **C** 16
- **D** Cannot be determined

Answer: B

- 56. A, B, C and D play a game of cards. A says to B. 'If I give you 8 cards, you will have as many as C has and I shall have 3 less than what C has. Also if I take 8 cards from C, I shall have twice as many as D has. If B and D together have 50 cards, how many cards has A got ?
- **A** 27
- **B** 23
- **C** 37
- **D** 40

Answer: D

Indian & Global Development

57.

How many companies from India found a place in the 'Global500' list?

A 5

B 4

- **C** 8
- **D** 10

Answer: A

58.

For the year 2007-08, World Bank has predicted India's GDP growth at

- A Below 8%
- **B** Below 7%
- **C** 8.5%
- **D** 9.6%

Answer: A

59.

National electricity Policy envisages elimination of power shortage by 2012 through addition of ______ during 10th and 11th Plan periods.

- **A** 75,000 MW
- **B** 50,000 MW
- **C** 100, 000 MW
- **D** 125, 000 MW

Answer: C

60.

Recently Tata Consultancy Services (TCS) has succeeded in acquiring a big deal from Bank of China worth

- A \$75 million
- **B** \$ 50 million
- **C** \$ 100 million
- **D** \$ 125 million

Answer: C

61.

As per the latest estimates of Petroleum Ministry, India's refining capacity will be increased to _____ million tonnes per annum by the end of the coming 11th Plan.

A 220
- **B** 210
- **C** 230
- **D** 240

Answer: D

62.

"Beyond Scarcity : Power, Poverty and Global Water Crisis" is the theme of

- A Human Development Report 2006
- B Human Development Report 2005
- C World Development Report 2005
- **D** World Development Report 2006
 - Answer: A
- 63.

Report of the Sachar Committee is related to

- **A** Status of the Scheduled Castes in India.
- **B** Social, economic and educational status of the Muslim community.
- **C** Economic status of Backward Classes in India.
- **D** None of these

Answer: B

64.

According to the Global Gender Gap Report, 2006 by the World Economic Forum, the country which has provided more political empowerment to women among the following is

- A USA
- **B** India
- C Sri Lanka
- **D** Bangladesh

Answer: B

65.

According to the Human Development Report 2006 of UNDP, the position of India in Human Development Index is

- **A** 135th
- **B** 126th
- **C** 137th
- **D** 81st

Answer: B

66.

Noted author and activist Arundhati Roy has been supporting the farmers of Singur in West Bengal who are resisting the State Government's move to acquire land and give it to

- A Tata Motors
- B Maruti Udyog Ltd.
- **C** Infosys
- **D** Hindustan Motors
 - Answer: A

67.

Year 2007 is being celebrated by India & China as the

- A Tourism year
- **B** Friendship year
- C Co-operation year
- **D** None of these

Answer: B

68.

The 14th Asia Pacific Economic Co-operation (APEC) 2006 Summit was held in

- A Thailand
- **B** Vietnam
- **C** Brazil

D China

Answer: B

69.

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

Answer: A

70.

Centre for DNA Fingerprinting is located at

- A Bangalore
- B New Delhi
- **C** Pune

D Hyderabad

Answer: D

71.

Cryogenic engines are used in

- A Atomic reactors
- **B** Rockets
- **C** Defrost Refrigerators
- **D** Doing research connected with superconductivity

Answer: B

72.

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

- A Nitrous oxide
- **B** Ozone

- c Sulphur dioxide
- **D** Carbon dioxide

Answer: D

73.

The 2008 Olympic Games will be held at

- A Montreal
- **B** Beijing
- **C** Atlanta
- **D** London

Answer: B

74.

Narain Karthikeyan is a sportsman in the field of

- **A** Shooting
- B Car racing
- **C** Chess
- D Golf

Answer: B

75.

El Nino is

- A Sea storm
- B A warm ocean current
- **C** A tropical disturbance
- **D** Another name of typhoon

Answer: A

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

Answer: C

77.

The World Trade Organization (WTO) was earlier known as

- A UNICEF
- **B** GATT
- **C** UNCTAD
- D FAO

Answer: B

78.

What is value Added Tax (VAT)?

- A new initiative taken by the Government to increase the tax-burden of high income groups
- **B** A simple, transparent, easy to pay tax imposed on consumers
- **C** A single tax that replaces State tax like surcharge, turnover tax, etc.
- **D** A new tax to be imposed on the producers of capital goods.

Answer: C

79. 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

Answer: B

80.

The common currency which has been introduced among 11 European nations is known as

- A Euro
- B Euro Pound
- C Euro Dollar
- **D** None of these

Answer: A

81.

Nuclear reactors used to produce electricity are based on

- A Nuclear fusion
- **B** Nuclear fission
- **C** Cold fusion
- **D** Superconductivity
 - Answer: B

82.

Who amongst the following was the head of the Investment Commission which submitted its report to the Government of India recently?

- A Dr. Rakesh Mohan
- B Mr. Ratan Tata
- C Mr. Kumar Mangalam Birla
- **D** Mr. Rahul Bajaj

Answer: B

83.

Mr. Arvind Kejriwal who got the Ramon Magsaysay Award 2006 is the founder of which of the following NGOs?

- A Aawahan
- **B** Sankalp

c Parivartan

D Sammelan

Answer: C

84.

Which bank has launched a new health cover scheme under the name of "Arogya Shree"?

- A PNB
- B SBI
- C Andhra Bank
- D OBC

Answer: A

85.

The Eleventh Five-Year Plan has been named as

- A 'Towards Fast and More Inclusive Growth'
- B 'Towards Infrastructural and Agricultural Growth'
- C 'Towards Rapid Educational and Economical Growth'
- D None of these

Answer: B

86.

Which of the following State Governments has decided to provide health insurance to people living below the poverty line with effect from January 2007?

- A Andhra Pradesh
- **B** Orissa
- **C** Karnataka
- **D** West Bengal

Answer: C

87.

In November 2006, Prime Minister Dr. Manmohan Singh and Chinese President Hu Jintao signed how many agreements including the Bilateral Investment Protection Agreement, in New Delhi?

Α	11
B	15
С	13
D	9

Answer: C

88.

What is the position of Tatas, the largest Indian group in terms of revenues and market capitalisation, in the Forbes' list of world's most reputed companies?

- **A** 20th
- **B** 18th
- **C** 22nd
- **D** 24th

Answer: A

89.

The Indian Railways has decided to start how many new luxury trains on the line of "Palace of Wheels" to ensure foreign customer?

- **A** 6
- **B** 4
- **C** 10
- **D** 15

Answer: A

90.

ASEAN, the major trade block of the world, consists of the following nations.

- A Indonesia, Malaysia, Thailand, Philippines and Singapore
- B India, Bangladesh, Myanmar, Sri Lanka and Pakistan
- C Indonesia, India, Thailand, Malaysia and Singapore
- D Vietnam, Thailand, Mauritius, Singapore and Philippines

Answer: A

91.

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 NaduAnswer: A

92.

Which one of the following is not correctly matched?

- A White Revolution Dairy
- **B** Green Revolution Agriculture
- C Blue Revolution Fishery
- D Red Revolution Wool

Answer: D

93.

Which one of the following is not a department in the Ministry of Human Resource Development?

- **A** Department of Secondary Education and Higher Education
- **B** Department of Elementary Education and Literacy
- C Department of Technical Education and Literacy
- D Department of Woman and Child DevelopmentAnswer: C

94.

In India, National Income is estimated by

- A Central Statistical Organisation
- **B** Planning Commission

- c Indian Statistical Institute
- **D** National Sample Survey Organisation

Answer: A

95.

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

- A Maharashtra
- B Madhya Pradesh
- C Tamil Nadu
- D Uttar Pradesh

Answer: D

96.

Who among the following has been given 'World Citizenship Award' 2006?

- A Jimmy Carter
- B Kofi Annan
- **C** Bill Clinton
- **D** Ronald Reagan

Answer: C