INSTRUCTIONS

1. **DO NOT OPEN THIS TEST BOOKLET UNTIL ASKED TO DO SO.**

2. Fill in the information required on the answer sheet. Your test may not be evaluated if the required details are not entered on the answer sheet.

3. This booklet consists of three sections A, B and C with 28, 23 and 33 questions respectively, i.e. a total of 84 questions. If there is a problem with your test booklet, inform the invigilator/ supervisor immediately. You will be provided with a replacement.

4. Do not seek clarification on any item in the test booklet from the test invigilator or the centre supervisor. Use your best judgement.

5. The time available for completing the three sections is 140 minutes. You are required to answer all three sections and expected to maximize scores in each section.

6. All questions carry equal marks.

7. Each question has five alternatives. Darken the appropriate circle against the question number on the answer sheet. For example, if your answer to question number 1 is ‘B’, darken fully the circle ‘B’ against question 1.

8. All answers are to be marked only on the (OMR) answer sheet. Use the margin in the test booklet for rough work. No other piece of paper is permitted for rough work.

9. Use only blue or black ball-point pen for marking answers on the OMR answer sheet. Please do not use gel or ink pens.

10. **NEGATIVE MARKS** (one fourth of a mark) may be deducted for each incorrect answer.

11. Failure to follow instructions and examination norms will lead to disqualification.

To open the test booklet, insert a pen beneath this page and tear open along the right side of the test booklet as indicated by the arrow at the bottom of the page.

PLEASE WAIT FOR THE SIGNAL TO OPEN THE TEST BOOKLET.

**BEST OF LUCK!**
Section A: Verbal and Logical Ability

1. Six words are given below:

I. Cacophonic
III. Calamitous
V. Contraindicative

II. Cacographie
IV. Catastrophic
VI. Cataclysmic

Which of the above words have similar meanings?

A. IV & VI only
B. I, II & V only
C. II, V & VI only
D. III, IV & VI only
E. III, IV, V & VI only

2. Read the four sentences given below:

i. He is the most _______ of the speakers to address us today.
ii. The belief in _______ justice is the essence of his talk.
iii. This hall would have been full but for the _______ rain.
iv. Many in the audience have achieved _______ in their respective fields.

Which of the following sequence of words would most appropriately fit the blanks?

A. i. Eminent, ii. Imminent, iii. Immanent, iv. Eminence
B. i. Immanent, ii. Imminent, iii. Imminence, iv. Eminence
C. i. Eminent, ii. Immanent, iii. Imminent, iv. Eminence
D. i. Eminent, ii. Immanent, iii. Imminent, iv. Imminence
E. i. Immanent, ii. Imminence, iii. Eminent, iv. Eminence

3. The first and the last sentences of the paragraph are numbered 1 & 6. The others, labelled as P, Q, R and S, are given below:

1. The world of cinema is indeed a strange one and baffles many a critic.
P. But there are incorrigible optimists who see a bright future.
Q. The Pundits still predict doom and they insist that it is the end of the road for cinema.
R. At the temples of the box office, fortunes are made and unmade.
S. The world of cinema has, they say, its own attraction.
6. Perhaps a positive outlook is not unwarranted. A doomsday approach is far too fatal at this stage.

Which of the following combinations given below is the most logically ordered?

A. 1SQPR6
B. 1RSPQ6
4. Which of the followings is not a term of 'disapproved'?
A. infallible
B. facetious
C. inimitable
D. childlike
E. awful

5. Read the following numbers and choose the option that best arranges them in a logical order.
I. It is certainly true that the critics—those persons whom the dictionary describes as "skilled in judging the qualities or merits of some class of things, especially of literary or artistic work"—have long harboured notions about the conditions of our drama, but their inexactness in public opinion is legendary.
II. But not close enough, it would seem, for this "marriage" constitutes the case of an absolute desire encountering a relative compliance.
III. The reviewers, by contrast, came close to being the most loyal and effective allies the commercial theatre could possibly desire.
IV. Perhaps the greatest irony in a situation bursting with ironies is the reiterated idea that the critics are killing the theatre.
V. We all know that when theatre people or members of the public refer to the critics, they nearly always mean the reviewers.

A. IV, V, III, I, II
B. IV, V, I, III, II
C. IV, I, V, II, III
D. II, V, IV, I, III
E. I, IV, V, II, III

6. In the traditions of many religions throughout the world (including Hindu-Christian beliefs), there has long been a sustained belief that the Universe as we know it today did not exist forever in the past, and that there was a spontaneous act which gave birth to all that has been, all that is, and all that will be. In other words, the Universe itself has not been created in any usual sense; it lies after first glance, ...

Which of the following options can meaningfully complete the above sentence?
A. but has a limited lifespan after its creation.
B. but our senses give us the right knowledge.
C. however, on second glance, our religious beliefs are right.

7. D. however, it is a ball of atomic energy.
E. however, it could not have been created.

8. It is a common historical fact that modern quantum mechanics began with two quite different mathematical formulations: the differential equation of Schrödinger, and the matrix algebra of Heisenberg. The two, apparently dissimilar, approaches were proved to be mathematically equivalent.

Which of the following sentences would most meaningfully follow the above paragraph?
A. The two approaches did not start with the same mathematical formulations.
B. These two points of view were desired to complement one another and were ultimately synthesized in Dirac's transformation theory.
C. A third mathematical formulation given by Feynman combines the matrix algebra of Heisenberg and integral calculus of Lobatshev.
D. Quantum mechanics evolved in the nineteenth century and came very close to particle physics, especially after the CERN experiments in 1998.
E. Earlier, the two formulations were mathematically similar.

9. Rana is an ordinary aspirant. In the last two university sports events, her performances in the heats were pathetic. Which of the following, if true, weakens the above argument the most?
A. She had participated in the college swimming competition and finished last.
B. She is a national level swimmer.
C. The last two times, Rana had to compete with national level swimmers. Had she been in other heats, she would have reached the finals.
D. Rana was the only player who represented her college in the sports events.
E. In the college sports events, Rana always wins.

10. Identify the correct sequence of events that apply to the blanks in the following passage:

b. (i) intoned, (ii) listened, (iii) suspicion, (iv) departure, (v) prescribed
A. (i) intoned, (ii) listened, (iii) suspicion, (iv) departure, (v) prescribed
B. (i) intoned, (ii) listened, (iii) suspicion, (iv) denouncement, (v) prescribed
C. (i) intoned, (ii) listened, (iii) suspicion, (iv) denouncement, (v) prescribed
D. (i) intoned, (ii) listened, (iii) suspicion, (iv) departure, (v) prescribed
E. (i) intoned, (ii) listened, (iii) suspicion, (iv) departure, (v) prescribed
11. Read the following statements carefully:

Statement 1: If you want to understand the causes that existed in the past, look at the results as they are manifested in the present.

Statement 2: Mount did not work as hard as his friends but had secured 1st rank in the examination.

Which of the following options is correct with respect to the above two statements?

A. If Statement 2 is right, Statement 1 is invalid.
B. Statement 1 and Statement 2 are contradictory to each other.
C. Statement 2 supplements Statement 1.
D. Statement 2 is a non-sequitur and hence irrelevant.
E. Statement 1 will hold true even if Statement 2 is valid.

12. It can be inferred that, for a nursery student, learning will...

A. comprise piecemeal ideas and disconnected concepts.
B. be a pleasant experience due to the formation of improved connections among neurons.
C. lead to complex behavior due to formation of new connections among neurons.
D. be better if diverse subjects are taught rather than a mix of subjects.
E. be a happy experience.

13. Read the following statements and answer the question that follows.

I. The two hemispheres of the brain are responsible for learning autonomously.
II. Simultaneous activation of circuits can take place in different areas of the brain.
III. There are specific regions of the brain associated with sight, touch and smell.
IV. The brain receives inputs from multiple external sources.
V. Learning is not the result of connections between neurons.

Which of the above statements are consistent with ideas expressed in the passage?

A. I, V
B. II, III
14. Which of the following best describes the passage?

A. When student is ready, the master appears.
B. Child is the father of the man.
C. All's well that ends well.
D. You can't teach an old dog new tricks.
E. Many a muddle makes a murder.

15. A father and son aged 60 and 25 respectively, have been living pangolins for quite some time. Based on the passage above, which of the following would be true?

A. The son would always learn more.
B. The father might learn more, if both of them started at the same time.
C. The son would learn more, if both of them started at the same time.
D. If both of them have been learning since the age of 15, the son would learn more.
E. Both of them would always progress equally.

Analyse the following passage and provide appropriate answers for questions 16 to 19 that follow.

Certain variants of key behavioral genes, "risk alleles," make people more vulnerable to certain mood, psychiatric, or personality disorders. An allele is any of the variants of a gene that varies more than one form. A risk allele, then, is simply a gene variant that increases your likelihood of developing a problem. Researchers have identified a dozen or more gene variants that can increase a person's susceptibility to depression, anxiety, and antisocial, sociopathic, or violent behaviors, and other problems—if, and only if, the person carrying the variant suffers a traumatic or stressful childhood or faces particularly trying experiences later in life. This hypothesis, often called the "static diathesis" or "genetic vulnerability" model, has been supported by psychiatric and behavioral science.

Recently, however, an alternative hypothesis has emerged from the same and is turning it inside out. According to this new thinking, these "bad genes" can create dysfunction in unfavorable contexts—but they can also enhance function in favorable situations. The genetic environment to negative experience that the vulnerability hypothesis has identified, it follows, are just the downside of a bigger phenomenon: a heightened genetic sensitivity to all experience.

This hypothesis has been anticipated by Swedish folk wisdom which has long spoken of "dandilion" children. These dandelion children—equivalent to our "nurtured" or "healthy" children, with "resilient" genes—do pretty well anywhere, whether raised in the equivalent of a sidewalk crack or a well-maintained garden. There are also "oak" children, who will wilt if ignored or maltreated but bloom spectacularly with generous care. According to this orchid hypothesis, risk becomes possibility; vulnerability becomes plasticity and responsiveness. Gene variants generally considered misfortunes can instead now be understood as highly leveraged evolutionary bets, with both high risks and high potential rewards.

In this view, having both dandelion and orchid kids greatly raises a family's (and a species') chance of succeeding, over time and in any given environment. The behavioral diversity provided by these two different types of temperament also supplies precisely what a smart, strong species needs if it is to spread across and dominate a changing world. The many dandelions in a population provide an undergirding stability. The less-routine orchids, meanwhile, may fail in some environments but can excel in those that suit them. And even when they lead troubled early lives, some of the resulting heightened responses to adversity that can be problematic in everyday life—increased novelty-seeking, readiness of attention, elevated risk-taking, or aggression—can prove advantageous in certain challenging situations: wars, social strife of many kinds, and migrations to new environments. Together, the steady dandelions and the resilient orchids offer an adaptive flexibility that nature can provide alone. Together, they open a path to otherwise unachievable individual and collective achievements.

16. The passage suggests "orchids":

A. are insufficient in number.
B. are limited to geesebrains.
C. end up weaker in comparison to dandelions.
D. thrive in stressful conditions.
E. are always too delicate to survive.

17. Which of the following statements correctly echoes the author's view?

A. People carrying risk alleles end up being self-destructive and antisocial.
B. Orchids possess heightened evolutionary adaptability and evolutionary success.
C. With a kind environment and poor parenting, all children will have a normal life.
D. Children born with genetic vulnerability need not necessarily be sociopathic.
E. Genes are not only making you sensitive to disorders, but also responsible for failures of societies.

18. The word "diathesis" means:

A. manageable to disease
B. two-posed hypothesis
C. connected with too haddens
D. missing parts of the body
E. living in two different environments
19. Mr. Good and Mr. Evil were batch mates during the college. Five years after graduating, Mr. Evil was put behind bars for financial fraud while Mr. Good was running a successful NGO, working for orphans. Mr. Good was raised in a protective environment while Mr. Evil was a self-made man.

Based on the above information, which of the following statements is definitely correct?

A. It can be concluded that Mr. Evil is a 'demoniac', but nothing can be concluded about Mr. Good.
B. It can be concluded that Mr. Evil is an 'exact', but nothing can be concluded about Mr. Good.
C. It can be concluded that Mr. Good is a 'demoniac', but nothing can be concluded about Mr. Evil.
D. It can be concluded that both Mr. Good and Mr. Evil are 'exact'.
E. It is not possible to conclude about 'children typology' of the two batch mates.

Analyse the following passage and provide appropriate answers for questions 20 to 23 that follow.

Alice - he was alone again - again condemned to silence - again face to face with nothingness! Alice! - never again to see the face, never again to hear the voice of the only human being who united him to earth! Was not Father's face the better, after all - to solve the problem of life at its source, even at the risk of horrible sufferings? The idea of suicide, which his friend had driven away and kept away by his cheerful presence, now hovered like a phantom over the other's dead body.

"If I could die," he said. "I should go where he goes, and should assuredly find him again. But how to die? It is very easy," he went on with a smile. "I will remain here, rush on the first person that opens the door, strangle him, and then there will glimmer me." But excessive grief is like a storm at sea, where the frail bark is tossed from the depths to the top of the wave. Dantes recollected from the idea of so infamous a death, and passed suddenly from despair to an ardent desire for life and liberty.

"Die? oh no," he exclaimed - "not die now, after having lived and suffered so long and as much! Die? yes, had I died years ago, then you might have been, in my turn, a blessing in the earth, and not a curse. But now, I am the one who will die, and that at my own bidding. In the darkness and solitude in which I shall be, I shall find peace, and I shall die as I have lived, in the knowledge of my wrongs."

20. How was the protagonist planning to resolve his problem?

A. To give up and surrender.
B. To commit suicide in the dungeon.
C. To fight the jester and escape.
D. To kill those who came to carry the corpse.
E. To exchange places with the dead.

21. Which one of the following options is nearest in meaning to that implied by the phrase "scent of duality" in this passage?

A. Duality makes one a laughing stock.
B. Duality ultimately swallows itself.
C. Triumph of the struggle gone through.
D. A mockery of the forces of duality.
E. Let the enemy have the last laugh.

22. Among the options given below, which phrase specifically captures the change of mood of the protagonist?

A. To be or not to be
B. Despair and hope
C. Depression in daring
D. Darkness in light
E. Leading to yearning

23. Words

- Counterpane
- Dungeon
- Guillotine
- Shroud

Related Words:

- a. Burial
- b. Bed
- c. Execution
- d. Cell

Which of the above "related words" on the right-hand side are correctly matched with "words" on the left-hand side?
Analyze the following passage and provide appropriate answers for questions 24 and 25 that follow.

Creative thinking can be used by management teams to produce actions that will potentially increase innovation and identify opportunities. Brainstorming is one technique that can enhance creativity. Brainstorming is usually regarded as a method to be used with groups of people. Although, it can be employed with individuals, the benefits of involving a group in that one person’s idea can help to stimulate even more ideas by other group members.

Underlying brainstorming is the idea that people’s creativity is restrained because they tend to reject ideas at too early a stage. This can be because they may be imposing unhelpful constraints on a problem or making false assumptions. Alternatively, they may be unable to see a problem from multiple perspectives or they may be stereotyping problems and possible solutions and hence falling to see their wider potential. Involvement of people with different perspectives enriches the idea generation.

24. Pick the option that best captures the relationship between the two paragraphs above.

A. The first paragraph describes a technique and the second is an example that supports it.
B. The first paragraph describes a process and the second paragraph contradicts the description.
C. The first paragraph describes a technique. The first part of the second paragraph contradicts it and the second part of the second paragraph makes an invalid claim.
D. In the first paragraph, the author conveys the understanding of a subject and in the second paragraph the author complements the first.
E. In the first paragraph the author describes a technique and in the second paragraph the author provides explanation of its advantages.

25. Which of the following options would be closest to the main argument in the second paragraph above?

A. Viewing students as customers, future alumni, brand ambassadors, potential recruiters etc., would make engineering colleges more successful.
B. Good students, after completing the MBA, should play multiple roles in an organization to become successful leaders.
C. India does better in non-sport like cricket than in individual sports like swimming.
D. All departments of the organization, including marketing, should give inputs to generate new ideas for improving customer satisfaction.
E. Compared to small entrepreneurial firms, large organizations will definitely generate more ideas.

Analyze the following passage and provide appropriate answers for questions 26 to 28 that follow.

For private goods, competitive markets ensure efficiency despite the decentralized nature of the information about individuals’ tastes and firms’ technologies. Implicitly, market competition solves adverse selection problems and the fixed-price contracts associated with exogenous priors solve moral hazard problems. However, markets fail for public goods and public intervention is thus needed. In this case, the mechanisms used for these collective decisions must solve the incentive problem of acquiring the private information that agents have about their preferences for public goods. Voting mechanisms are particular incentive mechanisms without any monetary transfers for which the core question of strategic voting, i.e., not voting according to the true preferences, can be raised. For private goods, increasing returns to scale create a situation of natural monopoly far away from the world of competitive markets. When the monopoly has private information about its costs or demand, its regulation by a regulatory commission becomes a principal-agent problem.

(More: Public goods are those in which individuals cannot be excluded from use and where use by one individual does not reduce availability to others, while an individual can be excluded in case of private goods.)

26. For which of the following goods, can markets not be efficient?

A. Packaged water
B. Electricity supply at home
C. Air
D. Petrol
E. All of the above

27. Which of the following cannot be concluded from the above paragraph?

A. Public intervention is needed when market fails.
B. Adverse selection problems as well as moral hazard problems may not arise in competitive markets.
C. Strategic voting is an issue for rent-extracting incentive mechanisms.
D. Lack of access to private information regarding preferences of agents leads to incentive problem.
E. Public regulations may address problems associated with natural monopoly.

28. Read the following statements carefully:

Statement 1: In both factories dump their waste in the nearby water bodies.
Statement 2: Government is thinking of granting tax benefits to factories which adopt eco-friendly practices.

Eco-friendly Practices and Waste Management
Section B: Decision Making and Analytical Reasoning

Answer questions 29-32 on the basis of information given in the following case.

The Disciplinary Committee of National Political Party (NPP) is meeting today to decide on the future of two of their party members, Mr. Loyal and his son Mr. Prodigal. Mr. Prodigal is in police custody on murder of Mr. Victim, an opposition party leader. Mr. Prodigal is in police custody on murder of Mr. Victim, an opposition party leader. Mr. Victim claims that his son is innocent and Mr. Victim is innocent. His appeal for bail has been rejected. Mr. Loyal claims that his son is innocent and Mr. Victim's death was the result of internal rivalry in the opposition party. Though Mr. Loyal is not accused in this case, his usefulness for his son is well known. The media is blaming him for the influencing key witnesses to protect his son. Several criticisms of this father-son duo, both by the media and some social activists, is damaging the image of the party. However, Mr. Loyal has significant followers within the party and is considered as asset to the party. Any harsh decisions against Mr. Loyal would adversely affect the future of NPP and could lead to a split in the party. This would benefit the opposition.

29. Which of the following actions would adversely affect both NPP and Mr. Loyal, the most?
   A. Take no action against Mr. Loyal.
   B. Suspend Mr. Prodigal from the party with immediate effect.
   C. Exempt Mr. Loyal from the party with immediate effect.
   D. Deny Mr. Loyal from entering party premises till completion of the court proceeding.
   E. Initiate an internal inquiry to find the truth.

30. At the Disciplinary Committee meeting, members came up with the following suggestions. Which of the following suggestions would harm the party, its image?
   A. Maintain status-quo.
   B. Exempt Mr. Prodigal from the party with immediate effect to maintain party's clean image.
   C. Initiate an internal inquiry to find the truth.
   D. Suspend Mr. Prodigal from the party with immediate effect but insurance that he will be taken back if the court declares him innocent.
   E. Suspend both Mr. Loyal and Mr. Prodigal from the party with immediate effect.

31. Mr. Oppor, the opposition member of NPP, seeks his claim to be nominated as an NPP candidate in the upcoming election. Mr. Oppor presented the following arguments in favour of his candidate to the NPP Executive Committee:
   I. Mr. Loyal's candidature in the upcoming election will adversely impact NPP's chances. Hence, the party should not nominate him.
   II. The party should call a press conference to declare Mr. Loyal's inclusion. This would enhance the party's image.
   III. The party would not be able to take any strong disciplinary action against Mr. Loyal, if he gets re-elected.

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32. The Disciplinary Committee has decided to suspend Mr. Loyal from the party because they feel he was influencing the judicial process. However, Mr. Loyal feels that the committee is biased and he is being framed. Now, elections have been announced. The last time, Mr. Loyal had won with a Ms. Loyal's immediate political career?

A. The main opposition party has invited Mr. Loyal to join the party and contest the elections.
B. Not participating in the campaign and instructing his followers to stay away from the campaign.
C. Ask his followers to support the NNP nominated candidate and display his loyalty to NNP.
D. Mr. Loyal should contest as an independent candidate. But due to his split in votes, his chances of winning would be low.
E. Influence the nomination process through his followers within NNP, to get one of his close associates nominated.

Answer question 23-35 on the basis of information given in the following case.

Bright Engineering College (BEC) has listed 20 elective courses for the next term and students electives: Job-oriented (J), Quantitative-oriented (Q), and Grade-oriented (G). Among these 20 types of QJ type electives are both Job and Quantitative-oriented but are not Quantitative-oriented and JG type electives are both Job and Grade-oriented but are not Grade-oriented and QG that total number of QJ type electives is 2 less than QG type electives. Similarly, the total across these categories. Furthermore, the number of only Quantitative-oriented electives is same as elective has at least one registration and there is at least one elective in each category, or combinations of categories.

33. On her way back, Suman met her friend Raj and shared the above information. Raj is preparing for XAT and is only interested in Grade-oriented (G) electives. He wanted to know the number of Q-type electives being offered. Suman replied, "You have all the information. Calculate the number of Q-type electives yourself. It would help your XAT preparation." Raj calculated correctly and says that there can be possible answers.

Which of the following options would best fit the blank above?

A. 3
B. 5
C. 8
D. 9
E. 11

34. Suman prefers J-type electives and wants to avoid Q-type electives. She noted that the number of only J-type electives is 3. Raj's preference is G-type electives followed by Q-type electives. He dared take as many common electives as possible. What is the maximum number of electives that can be common between them, without compromising their preferences?

A. 3
B. 4
C. 5
D. 7
E. Not possible to answer from the above information.

35. Vijay and Raj want to avoid each other. Vijay is interested in J-type electives and wants to avoid Q-type electives. Raj noted that G-type electives. Raj's preference is Q-type electives followed by G-type electives. Raj noted that there is a possibility that they would not share any common electives?

A. Yes, there is a possibility.
B. No, they would meet in one election.
C. No, they would not meet in one election.
D. No, they would only meet in two elections.
E. Cannot be solved with the information given.

Answer questions 36-38 on the basis of information given in the following case.

Mr. Durgapal Baruah, a young IT professional, came early to office to assist his boss in the preparation for an important client presentation. When he switched on his computer, he saw an email from Mr. Paul. The email was as follows:
January 2, 2015

Dear Mr. Barra,

This email serves as a follow-up of our conversation with you on December 1, 2014. I have already conveyed need for improvement in your behaviour as desired by your project leader and colleagues. They are yet to notice any visible improvements. I am apprehensive for your assess your performance and I have set two more months to determine whether improvements meet our organisation's expectations. At the same time, I would like to reaffirm that you are very valuable for our organisation.

Best Wishes,

Mr. J. Patel
HR Director

36. Initially, the email distracted Dipangku but he decided to focus on the job. Which of the following options might best explain his decision to do so?

A. Mr. Patel would soon be transferred to another department.
B. Last week, Mr. Dipangku’s boss assigned him to a new team in the same project.
C. Three days back, Mr. Dipangku has been assigned a new project similar to his final year engineering project.
D. His friend has been hospitalized for the last three months.
E. Failing to perform in the client meeting might further complicate things.

37. The scheduled presentation was off民用, back in his office, Dipangku read Mr Patel’s e-mail but Mr Patel had not allowed him to speak. Dipangku was thinking of asking Mr. Patel over a compensable salary. If Dipangku was to join the new job, he had to accept the offer within the next two weeks. However, he cannot think of a job without a job. Dipangku was confused!

Which of the following options would be the best mood for Dipangku?

A. Talk to Mr. Patel and highlight the initiatives he has taken at the same time start applying for other jobs.
B. Reject the offer from the start-up. Use the next three months to find a better job but continue in the present job.
C. Resign from this organization right now.
D. Accept the offer, only if the start-up gives a salary hike, else keep proposing.
E. Accept the offer with a request to give him a 10% salary hike.

38. After a couple of weeks, Mr. Patel came to know that Dipangku’s project leader Mr. John, a very competent senior executive, would have definitely influenced his boss. Mr. Patel wants to make a world complaint against Dipangku. Mr. John may have done it because Dipangku has refused to give John’s line. Mr. Patel also came to know that Dipangku was thinking of quitting the job. He feels regretful about his letter to Dipangku. He wanted to resolve the complicated situation. He was contemplating following five actions in his mind.

I. Talk to Mr. John about Dipangku and convey to him that hiring a bright employee would ease the organization, especially.
II. Catch up with Mr. John during coffee break and convey that Dipangku has a very good track record.
III. Catch with Dipangku during coffee break.
IV. Catch up with Dipangku during coffee break and convey that the organization values him.
V. Arrange a meeting among Mr. John, Dipangku and himself to sort out the differences.

Which of the following is the best sequence of actions for resolving the problem?

A. I, II, III, V
B. II, I, V
C. I, II, IV
D. I, IV, V
E. III, IV, V

Answer questions 39-41 on the basis of information given in the following case:

A few years back Mr. Arbi and Mr. Boring started an oil refinery business. Their annual earning is currently just 50,000 million rupees. They are now exploring various options to improve its earning. Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS). This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring.

39. Mr. Arbi is enthusiastic about this investment but Mr. Boring is a little sceptical. This impasse makes him approach a consultant. The consultant makes some observations. Which of the following observations, made by the consultant, might reduce Mr. Arbi's enthusiasm for the new investment idea?

A. Investment is warranted only when benefits outweigh costs.
B. Technology investments give higher earnings in future.
C. Investment in technology leads to reduction of costs in the long run.
D. Technology risks can be controlled.
E. Business is all about taking risky decisions.

40. A few years back Mr. Arbi and Mr. Boring started an oil refinery business. Their annual earning is currently just 50,000 million rupees. They are now exploring various options to improve its earning. Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS), is trying to sell business Mr. Xorath, a chief executive from Innovative Technology Solutions (ITS). This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring. This technology could potentially introduce oil refinery technology to Mr. Arbi and Mr. Boring.

39. Mr. Arbi is enthusiastic about this investment but Mr. Boring is a little sceptical. This impasse makes him approach a consultant. The consultant makes some observations. Which of the following observations, made by the consultant, might reduce Mr. Arbi's enthusiasm for the new investment idea?

A. Investment is warranted only when benefits outweigh costs.
B. Technology investments give higher earnings in future.
C. Investment in technology leads to reduction of costs in the long run.
D. Technology risks can be controlled.
E. Business is all about taking risky decisions.
40. In order to sell the technology to Mr. Ashi and Mr. Boing, Mr. Xerox is thinking of five possible sales pitches. Which of the following sales pitches would reduce uncertainties the most for Mr. Ashi and Mr. Boing?

A. All other competitors are aggressively investing in risky technologies.
B. If the technology succeeds, the annual earnings would grow 3 times from the next financial year and they would be able to recover the invested money within 1 year.
C. Preliminary studies indicate that success rate of this technology is 75%.
D. The R&D team of HS is working to overcome any possible drawbacks of the technology.
E. Business is all about taking risky decisions.

41. Mr. Ashi and Mr. Boing did not invest in the new technology, but the new technology is a big success. Represent, they are now estimating the additional revenue they would have earned (if expected lifetime of the new technology, Mr. Ashi expected life span to be 5 years. whereas, Mr. business would drop back to 50,000 million rupees.

What would be the difference between two expected earnings after 5 years of the technology investment, if yearly earnings are deposited in a bank @ 10% compounded annually?

Note: Forgone Earnings = (Earnings from business with new technology) - (Earnings from business without new technology)

A. 231,200 million rupees
B. 331,000 million rupees
C. 400,000 million rupees
D. 431,000 million rupees
E. 646,000 million rupees

42. If more than 90% of their sales volume is from generic drugs, which of the following options is definitely correct?

A. If sales volume of patented drugs in India is 45%, the sales volume of generic drugs in India will be less than 60%.
B. If the sales volume of patented drugs in foreign countries is at least 24%, the sales volume of foreign countries will be about 54%.
C. If the sales volume of patented drugs in India is 54%, the sales volume of generic drugs in

43. Mr. Samba, senior executive of LSP, observes that their business in India is not strong. LSP faces stiff competition from Indian and global players, except in rural areas. Interestingly, most of their sales in the rural areas are from cough syrup, sold at relatively by teenagers. Mr. Samba is planning the following actions to improve business in the long run:

I. Invest in development of new drugs.
II. Increase sale of cough syrup in the rural markets.
III. Try and cut costs.
IV. Recruit more medical representatives in the rural areas.

Which of the following sequences is best arranged in the descending order of appropriateness?

A. I, II, III
B. II, I, III
C. III, II, I
D. IV, II, III
E. IV, III, I

44. Mr. Rustogi, HR head of LSP, is contemplating transferring Mrs. Jose, from India to their Luxembourg office. Mrs. Jose’s husband is also with the HR department of LSP. The couple is currently in Luxembourg office. Mr. Rustogi is expecting their first child within few months and hence they want to be together. Mr. Rustogi is wondering whether Mrs. Jose would accept the transfer. If he doesn’t, Mr. Rustogi would have to send a less competent person for the job in early as possible. The office in Luxembourg is very small and does not yet have an HR department. Hence, it is not possible to transfer Mrs. Jose to Luxembourg.

Which of the following options would be most appropriate, from the organization’s perspective, to resolve the issue?

A. Giving a salary hike to Mr. Jose and a promise to transfer Mrs. Jose to Luxembourg in the near future.
B. Giving Mrs. Jose option to work from home while in Luxembourg so that she can be with Mr. Jose. 
C. Giving Mr. Jose option to work from India for the time being so that he can be with Mrs. Jose in India.
D. Giving a salary hike to Mr. Jose to compensate for Mrs. Jose’s salary so that she can join Mr. Jose at Luxembourg, even with less of pay.
E. Asking Mr. Jose to accept the offer right now but give him up to six months to join Luxembourg office.
Mr. Khan used to work as the Vice President of LSP India. However, he had resigned from LSP India for a better job in New York. In the meantime, his wife was promoted to head the HR of LSP India. Mrs. Khan had struggled hard to reach this position and was quite popular and respected within the organization. Mrs. Khan was contemplating whether she should give up her career and join him in New York. Mrs. Khan is considering the following actions:

I. Take a break for the time being and focus on personal life. Given her reputation, she can always get back to the same job, if required.
II. Go to New York, or leave without pay for two months to help Mr. Khan settle down. After she can come back and resume her responsibility in LSP India.
III. Request Mr. Khan to look for an equivalent job in India.
IV. Resign from LSP India, join Mr. Khan in New York, and look for a similar job there.
V. Request LSP India to find a similar position in LSP USA and follow Mr. Khan to New York.

Which of the following sequences of actions can be immediately taken by Mrs. Khan to maintain her work-life balance?

A. I & II
B. I & III
C. I & IV
D. II & V
E. III & V

Answer questions 46-48 on the basis of information given in the following case:

Mohun’s was a popular fast-food joint at Connaught Place, Delhi. Initially, Mohun handled his business on his own, but Rani and Kishan joined. Mohun hurtled his business to be more entrepreneurial from a very successful fast-food joint. Later, Mohun’s was opened in Patpargunj, and he had decided to open a branch in a short time. Mohun was unhappy with his way of doing business.

Now, the foremost challenge for Mohun was to sort out this issue with Rani. Mohun knew that replacing Rani was difficult as Kishan did not want to leave Delhi. However, giving in to the pressure of sick child, Mohun was forced to take a break from Mohun’s business in Patpargunj.

46. Mohun sought the help of a few consultants, who gave him the following options:

I. Organic vegetables might be a hit success in Connaught Place but uncertain about prepared to face the consequences.
II. The Connaught Place model can be implemented in Patpargunj provided the business
III. Many high-end restaurants in Patpargunj use organic vegetables. So, using organic vegetables will not be a differentiating factor.
IV. Selling prices of their dishes in Patpargunj are significantly lower. Using organic vegetables will not be any advantage.
V. Premium-quality organic vegetables are not easily available in Patpargunj.

Which of the following acts of options would support Rani’s argument of not using organic vegetables?

A. I, III, IV
B. II, IV, V
C. I, III, IV, V
D. II, III, IV, V
E. All of the above

47. Mohun sought feedback from a few of his businessman friends, who were familiar with both the branches. Here is what they said:

- Businessman A: Customers of Connaught joint and Patpargunj are very different.
- Businessman B: Customers of Patpargunj are extremely happy with Rani’s behaviour.
- Businessman C: Patpargunj branch does not use the same quality of ingredients but maintains good hygiene and taste.
- Businessman D: No known, moreover the customers of Patpargunj might also appreciate what Connaught joint customers appreciate today?

If Mohun thinks all these are valid concerns, which of the following actions would be best for the business?

A. Testing Rani in a few months.
B. Not worrying about ingredients as long as business grows.
C. Belonging Rani to Connaught place branch.
D. Naming the Patpargunj branch as ‘Rani’s,’ and changing it back to Mohun’s, when needed.
E. Asking Rani to try the Patpargunj branch.

48. After discussing with a few customers, Mohun realized that compromising on the quality of ingredients in Patpargunj branch may not be a good idea but at the same time he also realized that implementing the Connaught joint model might be too many for his business. He was contemplating the following five actions. Which of the following actions would be the best for the future of his business?

A. Creating awareness campaign for organic vegetables in Patpargunj.
B. Mohun himself should look after the Patpargunj branch.
C. Close-down the Patpargunj branch.
D. Send Kishan to Connaught branch and inviting Rani to Connaught place professionally.
E. Hire a new person to run the Patpargunj branch.
MBA entrance examination comprises two types of problems: formula-based problems and application-based problems. From the analysis of past data, Interest School of Management (ISM) observes that students good at solving application-based problems are entrepreneurial in nature. Counseling institute for MBA entrance exams tries to spot formula-based problems and answer them correctly, so as to obtain the required overall cut-off percentile. Thus students, in general, shy away from application-based problems and even those with entrepreneurial mindset target formula-based problems.

Half a mark is deducted for every wrong answer.

49. ISM wants more students with entrepreneurial mindset in the next batch. To achieve this, ISM is considering following proposals:
   I. Preparing a question paper of two parts, Part A and Part B, of duration of one hour each. Part A and Part B would contain of formula-based problems and application-based problems, respectively. After taking sixty marks Part A, Part B would be distributed. The qualifying cut-off percentage would be calculated on the combined scores of two parts.
   II. Preparing a question paper comprising Part A and Part B. While Part A would comprise formula-based problems, Part B would comprise application-based problems. The qualifying cut-off percentage would be calculated on the combined scores of two parts.
   III. Assigning one mark for formula-based problem and two marks for application-based problems as an incentive for attempting application-based problems.
   IV. Allowing one mark for formula-based problems and four marks for application-based problems, with a combination of both.

Which of the following proposal (or combination of proposals) is likely to identify students with best entrepreneurial mindset?

A. I & II
B. I, II & V
C. I, II & VI
D. IV, V & VI
E. I, II, IV & V

Answer question 50 on the basis of information given in the following case.

50. ISM conducts a common entrance examination every year. This year, the question paper would comprise 60 questions with an equal mix of formula-based problems and application-based problems appearing for the examination to get the following information from coaching institutes:
   I. Application-oriented problems take more time to solve as compared to formula-based problems.
   II. Chances of silly mistakes would be less in application-based problems.

Which of the following options would be the most preferred among the students?

A. II, IV, V
B. IV, V, III
C. V, I, II
D. V, I, III
E. IV, III, I
52. What is the sum of the following series?
-64, -66, -68, ..., -100
A. -1458
B. -1558
C. -1568
D. -1664
E. None of the above

53. A solid metal cylinder of 10 cm height and 14 cm diameter is melted and recast into two cones in the proportion of 3:4 (volume), keeping the height 10 cm. What would be the percentage change in the surface area before and after?
A. 9%
B. 16%
C. 23%
D. 50%
E. None of the above

54. The Maximum Retail Price (MRP) of a product is 35% above its manufacturing cost. The product is sold through a retailer who earns 25% profit on his purchase price. What is the profit percentage given 10% discount on MRP?
A. 31%
B. 32%
C. 35%
D. 13%
E. None of the above

55. Ram's plans to order a birthday gift for his friend from an online retailer. However, the delivery deadlines are often delivered late. He estimates that the probability of delivering the gift on time is 0.8. He orders from all four retailers simultaneously. What would be the probability that his friend does not receive the gift on time?
A. 0.804
B. 0.096
C. 0.316
D. 0.994
E. 0.996

56. The figure below has been obtained by folding a rectangle. The total area of the figure (as visible) is 344 square meters. Had the rectangle not been folded, the current overlapping part would have been a square. What would have been the total area of the original unfolded rectangle?
A. 128 square meters
B. 194 square meters
C. 172 square meters
D. 172 square meters
E. None of the above

57. Find the equation of the graph shown below.
A. \( y = 3x - 4 \)
B. \( y = 2x^2 - 40 \)
C. \( x = 2y - 10 \)
D. \( x = 2y^2 + 5y - 10 \)
E. None of the above

58. Product M is produced by mixing chemical X and chemical Y in the ratio of 5:4. Chemical X is prepared by mixing two raw materials, A and B, in the ratio of 1:1. Chemical Y is prepared by mixing two raw materials, B and C, in the ratio of 2:1. Thus the final mixture is prepared by mixing 36 units of raw material B and C in the ratio of 3:1. The concentration of the raw material B in the final mixture is 70%. How much water had to be added to make M?
59. A circular road is constructed outside a square field. The perimeter of the square field is 200 ft. If the width of the road is 10 ft and cost of construction is Rs. 100 per sq. ft, find the lowest possible cost to construct 90% of the total road.
   A. Rs. 70,400  
   B. Rs. 72,500  
   C. Rs. 140,100  
   D. Rs. 225,600  
   E. None of the above

60. In the diagram below, $CD = BF = 10$ units and $\angle CED = \angle CAF = 30^\circ$. What would be the area of triangle $\triangle AED$? (Note: Diagram below may not be proportional to scale.)

   A. 100  
   B. $100/\sqrt{3}$  
   C. 50$\sqrt{3}$  
   D. 50 $\sqrt{3}$  
   E. None of the above

61. Two diagonals of a parallelogram intersect each other at coordinates $(17,5,7,5)$ and $(13,5,16)$. Find the lengths of the diagonals.
   A. 13 and 30  
   B. 15 and 20  
   C. 17 and 30  
   D. 17 and 40  
   E. None of the above

62. If $x^2 - 1 = x^2 - 2x + k$, and if $x^2 - 2 = x^2 - 2x + k$, then the value of $(k - 1)^2$ is
   A. 6  
   B. 7  
   C. 9  
   D. 9  
   E. None of the above

63. In the beginning of the year 2004, a person invests some amount in a bank. In the beginning of 2007, the accumulated interest is Rs. 10,000 and in the beginning of 2010, the accumulated interest becomes Rs. 25,000. The interest rate is compounded annually and the annual interest rate is fixed. The principal amount is
   A. Rs. 16,000  
   B. Rs. 18,000  
   C. Rs. 20,000  
   D. Rs. 25,000  
   E. None of the above

64. The tax rates for various income slabs are given below:

<table>
<thead>
<tr>
<th>Income Slab (Rs.)</th>
<th>Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>$&lt; 5000$</td>
<td>10%</td>
</tr>
<tr>
<td>$5000$ to $&lt; 10000$</td>
<td>15%</td>
</tr>
<tr>
<td>$10000$ to $&lt; 15000$</td>
<td>20%</td>
</tr>
<tr>
<td>$15000$ to $&lt; 20000$</td>
<td>25%</td>
</tr>
<tr>
<td>$20000$ to $&lt; 30000$</td>
<td>30%</td>
</tr>
<tr>
<td>$30000$ to $&lt; 50000$</td>
<td>35%</td>
</tr>
<tr>
<td>$50000$ to $&lt; 60000$</td>
<td>40%</td>
</tr>
<tr>
<td>$60000$ to $&lt; 100000$</td>
<td>45%</td>
</tr>
<tr>
<td>$100000$ to $&lt; 200000$</td>
<td>50%</td>
</tr>
<tr>
<td>$200000$ to $&lt; 300000$</td>
<td>55%</td>
</tr>
<tr>
<td>$300000$ to $&lt; 500000$</td>
<td>60%</td>
</tr>
<tr>
<td>$500000$ to $&lt; 700000$</td>
<td>65%</td>
</tr>
<tr>
<td>$700000$ to $&lt; 1000000$</td>
<td>70%</td>
</tr>
<tr>
<td>$1000000$ to $&lt; 1500000$</td>
<td>75%</td>
</tr>
<tr>
<td>$1500000$ to $&lt; 20000000$</td>
<td>80%</td>
</tr>
<tr>
<td>$20000000$ to $&lt; 50000000$</td>
<td>90%</td>
</tr>
<tr>
<td>$50000000$ to $&lt; 100000000$</td>
<td>100%</td>
</tr>
</tbody>
</table>

There are 15 persons working in an organization. Out of them, 3 to 5 persons are failing in each of the income slabs mentioned above. Which of the following is the correct tax range of the 15 persons?
   (If 15 persons earning Rs. 20,000, the tax would be: $1500 + 4000 + 0.05$)
   A. 1350 to 3750, both included  
   B. 1300 to 3500, both excluded  
   C. 2150 to 3750, both included  
   D. 2175 to 3800, both excluded  
   E. None of the above

65. If $a, b, c$ and $d$ are any four different positive integers selected from 1 to 25, then the highest possible value of $(a + b) + (c + d) + (a + c) + (b + d)$ would be
   A. 47  
   B. 49  
   C. 51  
   D. 55  
   E. None of the above

66. An ascending series of numbers satisfies the following conditions:
   i. When divided by 3, 4, 5 or 6, the numbers leave a remainder of 2.
   ii. When divided by 11, the numbers leave no remainder.

The 6th number in this series will be:
67. In an examination, two types of questions are asked: one mark questions and two mark questions. For each wrong answer, one mark question, the deduction is 1/6 of a mark and for each wrong answer to any unattempted question. The question paper has 10 one mark questions and 10 two mark questions. In the examination, each student got all possible marks, between 20 and 30 and every student had different marks. What would be the rank of a student who scored 18 out of 22.5 marks?

A. 5
B. 6
C. 7
D. 8
E. None of the above

68. For a positive integer k, define $f(k)$ such that $f(k) = |a - b|$ where $a$ is an integer and $f(1) = 0$. If the value of $f(1000)$, then the value of $f(n)$ will be:

A. $1003$
B. $1004$
C. $1005$
D. $1006$
E. None of the above

69. Devendra’s house is 50 km West of Pradeep’s house. On Sunday morning, at 10 a.m., they leave their respective houses.

Under which of the following scenarios, the minimum distance between the two would be 40 km?

Scenario I: Devendra walks East at a constant speed of 3 km per hour and Pradeep walks West at a constant speed of 4 km per hour.

Scenario II: Devendra walks East at a constant speed of 5 km per hour and Pradeep walks West at a constant speed of 3 km per hour.

Scenario III: Devendra walks West at a constant speed of 4 km per hour and Pradeep walks East at a constant speed of 3 km per hour.

A. Scenario I only
B. Scenario II only
C. Scenario III only
D. Scenarios I and II
E. None of the above

70. The median of 11 different positive integers is 15 and six of those 11 integers are 8, 12, 20, 6, 34, 22, and 13.

Statement I: The difference between the averages of four largest integers and four smallest integers is 12.25.

Statement II: The average of all the 11 integers is 16.

Which of the following statements would be sufficient to find the largest possible integer of those numbers?

A. Statement I only
B. Statement II only
C. Both Statement I and Statement II are required
D. Neither Statement I nor Statement II is sufficient.
E. Either Statement I or Statement II is sufficient.

71. The parallel sides of a trapezoid $ABCD$ are in the ratio of 4:5. $ABCD$ is divided into an isosceles triangle $ASP$ and a parallelogram $PMCD$ (as shown below). $ABCD$ has a perimeter equal to 1220 meters and $PMCD$ has a perimeter equal to 1000 meters. Find $\angle PMC$, given $\angle BAD = \angle ABC$.

A. $45^\circ$
B. $162.5^\circ$
C. $56^\circ$
D. $125^\circ$
E. A single solution is not possible.

72. A five-digit number has digits in strictly descending order and divisible by 10. By changing the place of the digit in a three-digit integer is constructed in such a way that the new number is also divisible by 10. The difference between the original number and the new number is divisible by 40. How many numbers will satisfy all these conditions?

A. $5$
B. $6$
C. $7$
D. $8$
E. None of the above

73. The centre of a circle inside a triangle is at a distance of 625 cm from each of the vertices of the triangle. If the diameter of the circle is 350 cm, and the circle is touching only two sides of the triangle, find the area of the triangle.
74. If the last 6 digits of \((M! - N!)/\text{fact. } M\) are 999660, which of the following options is not possible for \(M! - N!\)?

Both \(M\) and \(N\) are positive integers and \(M > N\). \(M!\) is factorial \(M\).
A. 190
B. 180
C. 200
D. 225
E. 254

75. A person is standing at a distance of 1800 metres facing a giant clock at the top of a tower. At 5:00 p.m., he can see the tip of the minute hand of the clock at a 30-degree elevation from his eye-level. At 5:10 p.m., the person noticed that the tip of the minute hand made an angle of 60 degrees with respect to his eye-level. Using these measures, he calculated the length of the minute hand is 200 metres. (\(\pi = 3.14\)).
A. 7.2 km/hour
B. 7.5 km/hour
C. 7.8 km/hour
D. 8.4 km/hour
E. None of the above

76. Three pipes are connected to an inverted cone, with its base at the top. Two inlet pipes, A and B, are connected to the top of the cone and can fill the empty cone individually, in 8 hours and 12 hours, respectively. The outlet pipe, C, connected to the bottom, can empty a filled cone in 4 hours. When the cone is completely filled with water, all three pipes are opened. Two of the three pipes remain open for 20 hours continuously and the third pipe remains open for a limited time. As a result, the cone is emptied in 8 hours. Which of the following options would be possible?
A. Pipe A was open for 19 hours.
B. Pipe A was open for 19 hours 30 minutes.
C. Pipe B was open for 19 hours 30 minutes.
D. Pipe C was open for 19 hours 50 minutes.
E. The situation is not possible.
Answer questions 77-84 on the basis of the information given below:

Twitter allows its users to post short and real-time messages known as tweets. Tweets can be of three types: Positive Tweets (in support), Negative Tweets (against) and Neutral Tweets. The following table presents the Number of Votes and Tweets received by various political parties.

<table>
<thead>
<tr>
<th>Parties</th>
<th>Number of Votes</th>
<th>Tweets (Year 2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 2000</td>
<td>Year 2005</td>
</tr>
<tr>
<td>A</td>
<td>329,700</td>
<td>340,200</td>
</tr>
<tr>
<td>B</td>
<td>135,450</td>
<td>154,000</td>
</tr>
<tr>
<td>C</td>
<td>196,230</td>
<td>225,200</td>
</tr>
<tr>
<td>D</td>
<td>27,478</td>
<td>46,450</td>
</tr>
<tr>
<td>E</td>
<td>80,049</td>
<td>49,350</td>
</tr>
<tr>
<td>Other</td>
<td>91,275</td>
<td>189,400</td>
</tr>
</tbody>
</table>

* Any party which has secured less than 2% of the total votes falls under ‘Other Parties’ category. For example, Party E secured less than 2% of total votes, in the year 2000.

Note: If the vote share (percentage of total votes) of a party changes from 15% to 40%, the gain in vote share would be 25% (15% to 40% is 15%).

81. Which of the following options correctly arranges the political parties in descending order of gain in vote share from the year 2005 to the year 2010?
   A. EBDA
   B. EBCDA
   C. EBDA
   D. BCED
   E. BICDA

82. Which of the following parties received maximum number of “neutral tweets” in the year 2010?
   A. Party B
   B. Party C
   C. Party D
   D. Party E
   E. One of the parties categorized under ‘Other Parties’
83. Between 2000 and 2010, in terms of gain in vote share, which of the following cannot be a possible value (approximated to one decimal place) for any party?
   A. 2.0%
   B. 2.1%
   C. 3.1%
   D. 4.1%
   E. 7.5%

84. In 2010, which of the following options has maximum difference between the vote share and seat share?
   A. Party A
   B. Party B
   C. Party C
   D. Party D
   E. Other Parties