INSTRUCTIONS

1. This Test Booklet contains 100 items (questions). Each item comprises four responses (answers). You will select the response which you want to mark on the Answer sheet. In case, you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose ONLY ONE response for each item.

2. All items carry equal marks.

3. Penalty for wrong answers:
   THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY THE CANDIDATE FOR WRONG ANSWER.
   (i) There are four alternatives for the answer to every question. For each question which has a penalty for which a wrong answer has been given by the candidate, one-third of the marks assigned to that question will be deducted as penalty.
   (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to that question.
   (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no penalty for that question.

DIRECTIONS for the following 8 (eight) items : Read the following seven passages and answer the items that follow. Your answers to these items should be based on the passages only.

PASSAGE - 1
The richer States have a responsibility to cut down carbon emissions and promote clean energy investments. These are the States that got electricity, grew faster and now have high per capita income, making them capable of sharing India's burden of becoming eco-friendly. Delhi, for example, can help by generating its own clean electricity using solar rooftop panels or even help poor States finance their clean energy projects. It is no secret that State Electricity Boards, which control 95% of the distribution network, are neck-deep in losses. These losses further discourage State utilities from adopting renewable energy as it is more expensive than fossil fuels.

1. Which among the following is the most logical and rational assumption that can be made from the above passage?
   (a) The richer States must lead in the production and adoption of renewable energy.
   (b) The poor States always have to depend on rich States for electricity.
   (c) The State Electricity Boards can improve their finances by undertaking clean energy projects.
   (d) The high economic disparity between the rich and poor States is the major cause of high carbon emissions in India.

PASSAGE - 2
Set against a rural backdrop, 'Stench of kerosene' is the story of a couple, Guleri and Manak, who have been happily married for several years but do not have a child. Manak's mother is desperate to have a grandchild to carry on the family name. Hence, she gets Manak remarried in Guleri's absence. Manak, who acts as a reluctant but passive spectator, is meanwhile, informed by a friend that Guleri, on hearing about her husband's second marriage, poured kerosene on her clothes and set fire to them. Manak is heartbroken and begins to live as if he were a dead man. When his second wife delivers a son, Manak stares at the child for a long time and blurts out, "He stinks of kerosene."

2. This is a sensitive issue-based story which tries to sensitise the readers about
   (a) Male chauvinism and infidelity
   (b) Love and betrayal
   (c) Lack of legal safeguards for women
   (d) Influence of patriarchal mindset

PASSAGE - 3
The ultimate aim of government is not to rule or control by fear, nor to demand obedience, but conversely, to free every man from fear, that he may live in all possible security. In other words, to strengthen his natural right to exist and work without injury to himself or others. The object of government is not to change men from rational beings into beasts or puppets. It should enable them to develop their minds and bodies in security, and to employ their reason unshackled.

3. Which among the following is the most logical and rational inference that can be made from the above passage?
   (a) The true aim of government is to secure the citizens their social and political freedom.
   (b) The primary concern of government is to provide absolute social security to all its citizens.
   (c) The best government is the one that allows the citizens to enjoy absolute liberty in all matters of life.
   (d) The best government is the one that provides absolute physical security to the people of the country
**PASSAGE - 4**

Our municipal corporations are understaffed. The issue of skills and competencies of the staff poses an even greater challenge. Urban services delivery and infrastructure are complex to plan and execute.

They require a high degree of specialization and professionalism. The current framework within which municipal employees, including senior management, are recruited does not adequately factor in the technical and managerial competencies required. Cadre and recruitment rules only specify the bare minimum in academic qualifications. There is no mention of managerial or technical competencies, or of relevant work experience. This is the case with most municipal corporations. They also suffer from weak organisation design and structure.

4. Which among the following is the most logical and rational assumption that can be made from the above passage?
   (a) The task of providing urban services is a complex issue which requires the organisational expansion of municipal bodies all over the country.
   (b) Our cities can provide better quality of life if our local government bodies have adequate staff with required skills and competencies.
   (c) Lack of skilled staff is due to the absence of institutions which offer the requisite skills in city management.
   (d) Our country is not taking advantage of the demographic dividend to manage the problems associated with rapid urbanization

**PASSAGE - 5**

Flamingos in large flocks in the wild are social extremely loyal. They perform group mating dances. Parents are very fond of their chicks, gathering them into creches for protection while both males and females fly off to search for food.

5. Which among the following is the most logical corollary to the above passage?
   (a) Mass nesting in all species of birds is essential to ensure complete survival of their offspring.
   (b) Only birds have the capacity to develop social behaviour and thus can do mass nesting to raise their chicks in safety.
   (c) Social behaviour in some species of birds increases the odds of survival in an unsafe world.
   (d) All species of birds set up creches for their chicks to teach them social behaviour and loyalty.

**PASSAGE - 6**

Vast numbers of Indian citizens without bank accounts live in rural areas, are financially and functionally illiterate, and have little experience with technology. A research study was conducted in a particular area in which electronic wage payments in Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) are meant to go directly to the poor. It was observed that recipients often assume that the village leader needs to mediate the process, as was the case under the previous paper-based system. Among households under this research study area who claimed to have at least one bank account, over a third reported still receiving MGNREGS wages in cash directly from a village leader.

6. What is the most logical, rational and crucial message that is implied in the above passage?
   (a) MGNREGS should be extended only to those who have a bank account.
   (b) The paper-based system of payments is more efficient than electronic payment in the present scenario.
   (c) The goal of electronic wage payments was not to eliminate mediation by village leaders.
   (d) It is essential to provide financial literacy to the rural poor.

**PASSAGE - 7**

Individuals, groups and leaders who promote human development operate under strong institutional, structural and political constraints that affect policy options. But experience suggests broad principles for shaping an appropriate agenda for human development. One important finding from several decades of human development experience is that focusing exclusively on economic growth is problematic. While we have good knowledge about how to advance health and education, the causes of growth are much less certain and growth is often elusive. Further, an unbalanced emphasis on growth is often associated with negative environmental consequences and adverse distributional effects. The experience of China, with its impressive growth record, reflects these broader concerns and underlines the importance of balanced approaches that emphasize investments in the non-income aspects of human development.

7. With reference to the above passage, consider the following statements:
   1. In developing countries, a strong institutional framework is the only requirement for human development and policy options
   2. Human development and economic growth are not always positively inter-related.
   3. Focusing only on human development should be the goal of economic growth

Which of the above statements is/are correct?
   (a) 1 only  (b) 2 and 3 only  
   (c) 2 only  (d) 1, 2 and 3

8. With reference to the above passage, the following assumptions have been made:
   1. Higher economic growth is essential to ensure reduction in economic disparity.
   2. Environmental degradation is sometimes a consequence of economic growth

Which of the above is/are valid assumption/assumptions?
   (a) 1 only  (b) 2 only
   (c) Both 1 and 2  (d) Neither 1 nor 2

9. If A runs less fast than B, and B runs as fast but not faster than C; then, as compared to A, C runs
   (a) slower than A  
   (b) faster than A  
   (c) with same speed as A  
   (d) Given data is not sufficient to determine

10. Each of A, B, C and D has 100. A pays 20 to B, who pays 10 to C, who gets 30 from D. In this context, which one of the following statements is not correct?
    (a) C is the richest
(b) D is the poorest.
(c) C has more than what A and D have together.
(d) B is richer than D

11. In a town, 45% population read magazine A, 55% read magazine B, 40% read magazine C, 30% read magazines A and B, 15% read magazines B and C, 25% read magazines A and C; and 10% read all the three magazines. What percentage do not read any magazine?
(a) 10%
(b) 15%
(c) 20%
(d) 25%

12. Examine the following statements:
1. Lady's finger is tastier than cabbage.
2. Cauliflower is tastier than lady's finger.
3. Cabbage is not tastier than peas.
The conclusion that can be drawn from these statements is that
(a) peas are as tasty as lady's finger.
(b) peas are as tasty as cauliflower and lady's finger.
(c) cabbage is the least tasty of the four vegetables.
(d) cauliflower is tastier than cabbage.

13. Shahid and Rohit start from the same point in opposite directions. After each 1 km, Shahid always turns left and Rohit always turns right. Which of the following statements is correct?
(a) After both have travelled 2 km, the distance between them is 4 km.
(b) They meet after each has travelled 3 km.
(c) They meet for the first time after each has travelled 4 km.
(d) They go on without ever meeting again.

14. In a 500 metres race, B starts 45 metres ahead of A, but A wins the race while B is still 35 metres behind. What is the ratio of the speeds of A to B assuming that both start at the same time?
(a) 25:21
(b) 25:20
(c) 5:3
(d) 5:7

15. Two equal glasses of same type are respectively 1/3 and 1/4 full of milk. They are then filled up with water and the contents are mixed in a pot. What is the ratio of milk and water in the pot?
(a) 7:17
(b) 1:3
(c) 9:21
(d) 11:23

16. Out of 130 students appearing in an examination, 62 failed in English, 52 failed in Mathematics, whereas 24 failed in both English and Mathematics. The number of students who passed finally is
(a) 40
(b) 50
(c) 55
(d) 60

17. In a group of persons travelling in a bus, 6 persons can speak Tamil, 15 can speak Hindi and 6 can speak Gujarati. In that group none can speak any other language. If 2 persons in the group can speak two languages only and one person can speak all the three languages, then how many persons are there in the group?
(a) 21
(b) 22
(c) 23
(d) 24

18. In a parking area, the total number of wheels of all the cars (four-wheelers) and scooters/motorbikes (two-wheelers) is 100 more than twice the number of parked vehicles. The number of cars parked is
(a) 35
(b) 45
(c) 50
(d) 55

19. The mangroves can shed tons of leaves per acre every year; fungi and bacteria break down this leaf litter and consume it, then they are consumed by tiny worms and crustaceans, which in turn feed small fish, which feed larger fish and birds and crocodiles.
Which among the following is the most logical inference of the above statement?
(a) Coastal areas cannot have food chains without mangroves.
(b) Mangroves are an essential component of all marine ecosystems.
(c) Mangroves have a crucial role in some of the coastal food chains.
(d) The composition of marine flora and fauna is largely determined by mangroves.

20. "By liberty I mean the eager maintenance of that atmosphere in which men have the opportunity to be their best selves." Which one of the following expresses the view implied in the above statement?
(a) Liberty is the absence of restraint on human action.
(b) Liberty is what law permits people to perform.
(c) Liberty is the ability to do what one desires.
(d) Liberty is the maintenance of conditions for the growth of human personality.

DIRECTIONS for the following 8 (eight) items: Read the following six passages and answer the items that follow. Your answers to these items should be based on the passages only.

Passage - 1
Human history abounds in claims and theories confining the right of governing to a few select citizens. Exclusion of the many is justified on the ground that human beings may be rightfully segregated for the good of society and viability of the political process.

21. Which one of the following statements is least essential as a part of the argument in the above passage?
(a) Man seeks control over external things affecting him.
(b) In society, there are 'super' and 'sub' human beings.
(c) Exceptions to universal citizen participation are conducive to systemic efficacy.
(d) Governing implies recognition of disparities in individual capacities.

Passage - 2
By 2050, the Earth’s population will likely have swelled from seven to nine billion people. To fill all those stomachs - while accounting for shifting consumption patterns, climate change, and a finite amount of arable land and potable water – some experts say food production will have to double. How can we make the numbers add up? Experts say higher yielding crop varieties and more efficient farming methods will be crucial. So will waste reduction. Experts urge cities to reclaim nutrients and water from waste streams.
and preserve farmland. Poor countries, they say, can improve crop storage and packaging and rich nations could cut back on resource-intensive foods like meat.

22. Which one of the following statements best sums up the above passage?
(a) The population of the world is growing very fast.
(b) Food security is a perennial problem only in developing countries.
(c) The world does not have enough resources to meet the impending food scarcity.
(d) Food security is increasingly a collective challenge.

PASSAGE - 3
Many people in India feel that if we cut our defence expenditure on weapon-building, we can create a climate of peace with our neighbours, subsequently reducing the conflict or creating a no-war situation. People who proclaim such ideas are either the victims of war or the propagators of false argument.

23. With reference to the above passage, which of the following is the most valid assumption?
(a) Building of weapons systems by us has instigated our neighbours to wage wars against us.
(b) The greater spending on weapon-building by us would lessen the possibility of armed conflict with our neighbours.
(c) It is necessary to have state of the art weapons systems for national security.
(d) Many people in India believe that we are wasting our resources on weapon-building.

PASSAGE - 4
India accounts for nearly a fifth of the world’s child deaths. In terms of numbers, it is the highest in the world - nearly 16 lakhs every year. Of these, more than half die in the first month of life. Officials believe that the reason for this is the absence of steps to propagate basic health practices relating to breast feeding and immunisation. Also the large reproductive population of 2.6 crore remains bereft of care during the critical phases of pregnancy and post-delivery. Added to this is the prevalence of child marriages, anaemia among young women and lack of focus on adolescent sanitation, all of which impact child death rates.

24. Which is the critical inference that can be made from the above passage?
(a) A lot of Indians are illiterate and hence do not recognize the value of basic health practices.
(b) India has a very huge population and the government alone cannot manage public health services.
(c) Universalization and integration of maternal health and child health services can effectively address the problem.
(d) The nutrition of women in child bearing age does not affect child mortality rate.

PASSAGE - 5
Foods travel more than the people who eat them. Grocery stores and supermarkets are loaded with preserved and processed foods. This, however, often leads to environmental threats, such as pollution generated by long distance food transportation and wastage of food during processing and transportation, destruction of rain forests, reduced nutritional content, increased demand for preservation and packaging. Food insecurity also increases as the produce comes from regions that are not feeding their own population properly.

25. With reference to the above passage, which of the following statements is/are true?
1. Consuming regionally grown food and not depending on long travelled food is a part of eco-friendly behaviour.
2. Food processing industry puts a burden on our natural resources.

Select the correct answer using the code given below:
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

PASSAGE - 6
I must say that, beyond occasionally exposing me to laughter, my constitutional shyness has been of no disadvantage whatever. In fact I can see that, on the contrary, it has been all to my advantage. My hesitancy in speech, which was once an annoyance, is now a pleasure. Its greatest benefit has been that it has taught me the economy of words. I have naturally formed the habit of restraining my thoughts. And I can now give myself the certificate that a thoughtless word hardly ever escapes my tongue or pen. I do not recollect ever having had to regret anything in my speech or writing. I have thus been spared many a mishap and waste of time. Experience has taught me that silence is part of the spiritual discipline of a votary of truth. Proneness to exaggerate, to suppress or modify the truth, wittingly or unwittingly, is a natural weakness of man, and silence is necessary in order to surmount it. A man of few words will rarely be thoughtless in his speech; he will measure every word. We find so many people impatient to talk. There is no chairman of a meeting who is not pestered with notes for permission to speak. And whenever the permission is given the speaker generally exceeds the time-limit, asks for more time, and keeps on talking without permission. All this talking can hardly be said to be of any benefit to the world. It is so much waste of time. My shyness has been in reality my shield and buckler. It has allowed me to grow. It has helped me in my discernment of truth.

26. The author says that a thoughtless word hardly ever escapes his tongue or pen. Which one of the following is not a valid reason for this?
(a) He has no intention to waste his time.
(b) He believes in the economy of words.
(c) He believes in restraining his thoughts.
(d) He has hesitancy in his speech.

27. The most appropriate reason for the author to be spared many a mishap is that
(a) he hardly utters or writes a thoughtless word.
(b) he is a man of immense patience.
(c) he believes that he is a spiritual person.
(d) he is a votary of truth.

28. For the author, silence is necessary in order to surmount
(a) constitutional shyness.
(b) hesitancy in speech.
(c) suppression of thoughts.
(d) tendency to overstate.

29. Twelve people form a club. By picking lots, one of them will host a dinner for all once in a month. The number of dinners a particular member has to host in one year is
30. An automobiles owner reduced his monthly petrol consumption when the prices went up. The price-consumption relationship is as follows:

<table>
<thead>
<tr>
<th>Price (in ` Per litre)</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly consumption (in litres)</td>
<td>60</td>
<td>48</td>
<td>40</td>
<td>30</td>
</tr>
</tbody>
</table>

If the price goes up to `80 per litre, his expected consumption (in litres) will be
(a) 30  (b) 28  (c) 26  (d) 24

31. Consider the figures given below:

To fit the question mark, the correct answer is
(a)  (b)  (c)  (d) 

32. Consider the following matrix:

<table>
<thead>
<tr>
<th>3</th>
<th>8</th>
<th>10</th>
<th>2</th>
<th>?</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>56</td>
<td>90</td>
<td>2</td>
<td>20</td>
<td>0</td>
</tr>
</tbody>
</table>

What is the missing number at '?' in the matrix?
(a) 5  (b) 0  (c) 7  (d) 3

33. What is the missing number 'X' of the series 7, X, 21, 31, 43?
(a) 11  (b) 12  (c) 13  (d) 14

34. Four cardboard pieces of specific shapes are shown in the following figure:

Which one of the following figures given can be formed by joining these pieces together?
(a)  (b)  (c)  (d) 

35. In a test, a candidate attempted only 8 questions and secured 50% marks in each of the questions. If he obtained a total of 40% in the test and all questions in the test carried equal marks, how many questions were there in the test?
(a) 8  (b) 10  (c) 15  (d) 16

36. A father is nine times as old as his son and the mother is eight times as old as the son. The sum of the father’s and the mother’s age is 51 years. What is the age of the son?
(a) 7 years  (b) 5 years  (c) 4 years  (d) 3 years

37. Four persons A, B, C and D consisting of two married couples are in a group. Both the women are shorter than their respective husbands. A is the tallest among the four. C is taller than B. D is B’s brother. In this context, which one of the following statements is not correct?
(a) All four have family ties.
(b) B is the shortest among the four.  
(c) C is taller than D.  
(d) A is B’s husband.

38. Consider the following statements:
1. A man had a wife, two sons and daughters in his family
2. The daughters were invited to a feast and the male members of the family went out to take part in a picnic
3. The man’s father did not return from his work.
Which of the following statements is true?
(a) Only the man’s wife was left at home.
(b) It is likely that the man’s wife was left at home.
(c) None was left at home.
(d) More than one person was left at home.

39. Geeta: Naresh has become a better boxer since he started meditation.
Radha: Impossible, A boxer’s most important asset is his aggressiveness.
Radha’s statement reflects her belief that
(a) meditation tends to make a person less aggressive.
(b) meditation has little or no effect on the person who practises it.
(c) Naresh was a poor boxer earlier because he was not aggressive enough.
(d) Naresh would not have taken to meditation as he was a boxer.

40. All good athletes want to win and all athletes who want to win eat a well-balanced diet; therefore all athletes who do not cat a well-balanced diet are bad athletes.
The best conclusion from this statement is that
(a) no bad athlete wants to win.
(b) no athlete who does not eat a well-balanced diet is a good athlete.
(c) every athlete who eats a well-balanced diet is a good athlete.
(d) all athletes who want to win are good athletes.
DIRECTIONS for the following 7 (seven) items: Read the following four passages and answer the items that follow. Your answers to these items should be based on the passages only.

PASSAGE - 1

India has suffered from persistent high inflation. Increase in administered prices, demand and supply imbalances, imported inflation aggravated by rupee depreciation, and speculation - have combined to keep high inflation going. If there is an element common to all of them, it is that many of them are the outcomes of economic reforms. India's vulnerability to the effects of changes in international prices has increased with trade liberalisation. The effort to reduce subsidies has resulted in a continuous increase in the prices of commodities that are administered.

41. What is the most logical, rational and crucial message that is implied in the above passage?
(a) Under the present circumstances, India should completely avoid all trade liberalisation policies and all subsidies.
(b) Due to its peculiar socio-economic situation, India is not yet ready for trade liberalisation process.
(c) There is no solution in sight for the problems of continuing poverty and inflation in India in the near future.
(d) Economic reforms can often create a high inflation economy.

PASSAGE - 2

No Right is absolute, exclusive or inviolable. The Right of personal property, similarly, has to be perceived in the larger context of its assumed legitimacy. The Right of personal property should unite the principle of liberty with that of equality, and both with the principle of cooperation.

42. In the light of the argument in the above passage, which one of the following statements is the most convincing explanation?
(a) The Right of personal property is a Natural Right duly supported by statutes and scriptures.
(b) Personal property is a theft and an instrument of exploitation. The Right of personal property is therefore violative of economic justice.
(c) The Right of personal property is violative of distributive justice and negates the principle of cooperation.
(d) The comprehensive idea of economic justice demands that the Right of each person to acquisition of property has to be reconciled with that of others.

PASSAGE - 3

The conflict between man and State is as old as State history. Although attempts have been made for centuries to bring about a proper adjustment between the competing claims of State and the individual, the solution seems to be still far off. This is primarily because of the dynamic nature of human society where old values and ideas constantly yield place to new ones. It is obvious that if individuals are allowed to have absolute freedom of speech and action, the result would be chaos, ruin and anarchy.

43. The author's viewpoint can be best summed up in which of the following statements?
(a) The conflict between the claims of State and individual remains unresolved.
(b) Anarchy and chaos are the obvious results of democratic traditions.
(c) Old values, ideas and traditions persist despite the dynamic nature of human society.
(d) Constitutional guarantee of freedom of speech is not in the interest of society.

PASSAGE - 4

Climate change is a complex policy issue with major implications in terms of finance. All actions to address climate change ultimately involve costs. Funding is vital for countries like India to design and implement adaptation and mitigation plans and projects. Lack of funding is a large impediment to implementing adaptation plans. The scale and magnitude of the financial support required by developing countries to enhance their domestic mitigation and adaptation actions are a matter of intense debate in the multilateral negotiations under the United Nations Framework Convention on Climate Change (UNFCCC). The Convention squarely puts the responsibility for provision of financial support on the developed countries, taking into account their contribution to the stock of greenhouse gases (GHGs) in the atmosphere. Given the magnitude of the task and the funds required, domestic finances are likely to fall short of the current and projected needs of the developing countries. Global funding through the multilateral mechanism of the Convention will enhance their domestic capacity to finance the mitigation efforts.

44. According to the passage, which of the following is/are a matter of intense debate in the multilateral negotiations under UNFCCC regarding the role of developing countries in climate change?
1. The scale and size of required financial support.
2. The crop loss due to climate change in the developing countries.
3. To enhance the mitigation and adaptation actions in the developing countries.
Select the correct answer using the code given below:
(a) 1 only (b) 2 and 3 only (c) 1 and 3 only (d) 1, 2 and 3

45. In this passage, the Convention puts the responsibility for the provision of financial support on the developed countries because of
1. their higher level of per capita incomes.
2. their large quantum of GDP.
3. their large contribution to the stock of GHGs in the atmosphere.
Select the correct answer using the code given below:
(a) 1 only (b) 1 and 2 only (c) 3 only (d) 1, 2 and 3

46. With regards to developing countries, it can be inferred from the passage that climate change is likely to have implications on their
1. domestic finances.
2. capacity for multilateral trade.
Select the correct answer using the code given below:
(a) 1 only (b) 2 only
47. Which one of the following is essentially discussed in the passage?
   (a) Conflict between developed and developing countries regarding support for mitigation
   (b) Occurrence of climate change due to excessive exploitation of natural resources by the developed countries
   (c) Lack of political will on the part of all the countries to implement adaptation plans.
   (d) Governance problems of developing countries as a result of climate change

48. Between 6 PM and 7 PM the minute hand of a clock will be ahead of the hour hand by 3 minutes at
   (a) 6:15 PM  (b) 6:18 PM  (c) 6:36 PM  (d) 6:48 PM

49. There are 5 tasks and 5 persons. Task-1 cannot be assigned to either person-1 or person-2. Task-2 must be assigned to either person-3 or person-4. Every person is to be assigned one task. In how many ways can the assignment be done?
   (a) 6 (b) 12 (c) 24 (d) 144

50. The monthly incomes of Peter and Paul are in the ratio of 4 : 3. Their expenses are in the ratio of 3 : 2. If each saves `6,000 at the end of the month, their monthly incomes respectively are (in `)
   (a) 24,000 and 18,000  (b) 28,000 and 21,000  (c) 32,000 and 24,000  (d) 34,000 and 26,000

51. Two cities A and B are 360 km apart. A car goes from A to B with a speed of 40 km/hr and returns to A with a speed of 60 km/hr. What is the average speed of the car?
   (a) 45 km/hr  (b) 48 km/hr  (c) 50 km/hr  (d) 55 km/hr

52. Which one of the following is possible?
   (a) D is 20 years old  (b) F is 18 years old  (c) F is 19 years old  (d) F is 20 years old

53. What is the number of logically possible orders of all six cousins in terms of increasing age?
   (a) 1  (b) 2  (c) 3  (d) 4

54. In a society it is customary for friends of the same sex to hug and for friends of opposite sex to shake hands when they meet. A group of friends met in a party and there were 24 handshakes. Which one among the following numbers indicates the possible number of hugs?
   (a) 39  (b) 30  (c) 21  (d) 20

55. Two men, Anil and David, and two women, Shabnam and Rekha are in a sales group. Only two speak Tamil. The other two speak Marathi. Only one man and one woman can drive a car. Shabnam speaks Marathi. Anil speaks Tamil. Both Rekha and David can drive.
Which of the following statements is true?
   (a) Both the Tamil speakers can drive a car.
   (b) Both the Marathi speakers can drive a car.
   (c) Both of those who can drive a car speak Marathi.
   (d) One of those who can drive a car speaks Tamil.

56. In a plane, line X is perpendicular to line Y and parallel to line Z; line U is perpendicular to both lines V and W; line X is perpendicular to line V.
Which one of the following statements is correct?
   (a) Z, U and W are parallel.
   (b) X, V and Y are parallel.
   (c) Z, V and U are all perpendicular to W.
   (d) Y, V and W are parallel.

57. A cow costs more than 4 goats but less than 5 goats. If a goat costs between `600 and `800, which of the following is a most valid conclusion?
   (a) A cow costs more than `2,500.
   (b) A cow costs less than `3,600.
   (c) A cow costs between `2,600 and `3,800.
   (d) A cow costs between `2,400 and `4,000.

58. A society consists of only two types of people fighters and cowards. Two cowards are always friends. A fighter and a coward are always enemies. Fighters are indifferent to one another. If A and B are enemies, C and D are friends, E and F are indifferent to each other, A and E are not enemies, while Band F are enemies.
Which of the following statements is correct?
   (a) B, C and F are cowards.
   (b) A, E and F are fighters.
   (c) B and E are in the same category.
   (d) A and F are in different categories.

59. In a box of marbles, there are three less white marbles than the red ones and five more white marbles than the green ones. If there are a total of 10 white marbles, how many marbles are there in the box?
   (a) 26  (b) 28  (c) 32  (d) 36

60. Candidates in a competitive examination consisted of 60% men and 40% women. 70% men and 75% women cleared the qualifying test and entered the final test where 80% men and 70% women were successful.
Which of the following statements is correct?
   (a) Success rate is higher for women.
   (b) Overall success rate is below 50%.
   (c) More men cleared the examination than women.
   (d) Both (a) and (b) above are correct.
Climate change is already making many people hungry all over the world, by disrupting crop yields and pushing up prices. And it is not just food but nutrients that are becoming scarcer as the climate changes. It is the poorest communities that will suffer the worst effects of climate change, including increased hunger and malnutrition as crop production and livelihoods are threatened. On the other hand, poverty is a driver of climate change, as desperate communities resort to unsustainable use of resources to meet current needs.

61. Which among the following is the most logical corollary to the above passage?
(a) Government should allocate more funds to poverty alleviation programmes and increase food subsidies to the poor communities.
(b) Poverty and climate impacts reinforce each other and therefore we have to re-imagine our food systems.
(c) All the countries of the world must unite in fighting poverty malnutrition and treat poverty as a global problem.
(d) We must stop unsustainable agricultural practices immediately and control food prices.

The Global Financial Stability Report finds that the share of portfolio investments from advanced economies in the total debt and equity investments in emerging economies has doubled in the past decade to 12 percent. The phenomenon has implications for Indian policy makers as foreign portfolio investments in the debt and equity markets have been on the rise. The phenomenon is also flagged as a threat that could compromise global financial stability in a chain reaction, in the event of United States Federal Reserve's imminent reversal of its "Quantitative Easing" policy.

62. Which among the following is the most rational and critical inference that can be made from the above passage?
(a) Foregin portfolio investments are not good for emerging economies.
(b) Advanced economies undermine the global financial stability.
(c) India should desist from accepting foreign portfolio investments in the future.
(d) Emerging economies are at a risk of shock from advanced economies.

Open defecation is disastrous when practised in very densely populated areas, where it is impossible to keep away human faeces from crops, wells, food and children's hands. Groundwater is also contaminated by open defecation. Many ingested germs and worms spread diseases. They prevent the body from absorbing calories and nutrients. Nearly one-half of India's children remain malnourished. Lakhs of them die from preventable conditions. Diarrhoea leaves Indians' bodies smaller on average than those of people in some poorer countries where people eat fewer calories. Underweight mothers produce stunted babies prone to sickness who may fail to develop their full cognitive potential. The germs released into environment harm rich and poor alike, even those who use latrines.

63. Which among the following is the most critical inference that can be made from the above passage?
(a) The Central and State governments in India do not have enough resources to afford a latrine for each household.
(b) Open defecation is the most important public health problem of India.
(c) Open defecation reduces the human capital of India's workforce.
(d) Open defecation is a public health problem in all developing countries.

We generally talk about democracy but when it comes to any particular thing, we prefer a belonging to our caste or community or religion. So long as we have this kind of temptation, our democracy will remain a phoney kind of democracy. We must be in a position to respect a man as a man and to extend opportunities for development to those who deserve them and not to those who happen to belong to our community or race. This fact of favouritism has been responsible for much discontent and ill-will in our country.

64. Which one of the following statements best sums up the above passage?
(a) Our country has a lot of diversity with its many castes, communities and religions.
(b) True democracy could be established by providing equal opportunities to all.
(c) So far none of us have actually understood the meaning of democracy.
(d) It will never be possible for us to establish truly democratic governance in our country.

The existence/establishment of formal financial institutions that offer safe, reliable and alternative financial instruments is fundamental in mobilising savings. To save, individuals need access to safe and reliable financial institutions, such as banks, and to appropriate financial instruments and reasonable financial incentives. Such access is not always available to all people in developing countries like India and more so, in rural areas. Savings help poor households manage volatility in cash flow, smoothen consumption, and build working capital. Poor households without access to a formal savings mechanism encourage immediate spending temptations.

65. With reference to the above passage, consider the following statements:
1. Indian financial institutions do not offer any financial instruments to rural households to mobilise their savings.
2. Poor households tend to spend their earnings/savings due to lack of access to appropriate financial
instruments.

Which of the statements given above is/are correct?
(a) 1 only  (b) 2 only.
(c) Both 1 and 2  (d) Neither 1 nor 2

66. What is the crucial message conveyed in the passage?
(a) Establish more banks.
(b) Increase the Gross Domestic Product (GDP) growth rate
(c) Increase the interest rate of bank deposits
(d) Promote financial inclusion

PASSAGE - 6

Governments may have to take steps which would otherwise be an infringement on the Fundamental Rights of individuals, such as acquiring a person's land against his will, or refusing permission for putting up a building, but the larger public interest for which these are done must be authorized by the people (Parliament). Discretionary powers to the administration can be done away with. It is becoming more and more difficult to keep this power within limits as the government has many number of tasks to perform. Where discretion has to be used, there must be rules and safeguards to prevent misuse of that power. Systems have to be devised which minimise, if not prevent, the abuse of discretionary power. Government work must be conducted within a framework of recognised rules and principles, and decisions should be similar and predictable.

67. Which among the following is the most logical assumption that can be made from the above passage?
(a) Government should always be given wide discretionary power in all matters of administration.
(b) The supremacy of rules and safeguards should prevail as opposed to the influence of exclusive discretion of authority.
(c) Parliamentary democracy is possible only if the Government has wider discretionary power.
(d) None of the above statements is a logical assumption that can be made from this passage.

68. A selection is to be made for one post of Principal and two posts of Vice-Principal. Amongst the six candidates called for the interview, only two are eligible for the post of Principal while they all are eligible for the post of Vice-Principal. The number of possible combinations of selectees is
(a) 4  (b) 12
(c) 18  (d) None of the above

69. A student has to opt for 2 subjects out of 5 subjects for a course, namely, Commerce, Economics, Statistics, Mathematics I and Mathematics II. Mathematics II can be offered only if Mathematics I is also opted. The number of different combinations of two subjects which can be opted is
(a) 5  (b) 6
(c) 7  (d) 8

70. A person ordered 5 pairs of black socks and some pairs of brown socks. The price of a black pair was thrice that of a brown pair. While preparing the bill, the bill clerk interchanged the number of black and brown pairs by mistake which increased the bill by 100%. What was the number of pairs of brown socks in the original order?
(a) 10  (b) 15
(c) 20  (d) 25

71. The number of persons who read magazine X only is thrice the number of persons who read magazine Y. The number of persons who read magazine Y only is thrice the number of persons who read magazine X. Then, which of the following conclusions can be drawn?
1. The number of persons who read both the magazines is twice the number of persons who read only magazine X.
2. The total number of persons who read either one magazine or both the magazines is twice the number of persons who read both the magazines.

Select the correct answer using the code given below:
(a) 1 only  (b) 2 only
(c) Both 1 and 2  (d) Neither 1 nor 2

72. The graph below depicts the earnings of A and B over the period 2000 to 2010:

From the graph, which one of the following can be concluded?
(a) On the average A earned more than B during this period.
(b) On the average B earned more than A during this period.
(c) The earnings of A and B were equal during this period.
(d) The earnings of A were less as compared to B during this period.

73. Two pipes A and B can independently fill a tank completely in 20 and 30 minutes respectively. If both the pipes are opened simultaneously, how much time will they take to fill the tank completely?
(a) 10 minutes  (b) 12 minutes
(c) 15 minutes  (d) 25 minutes

74. Each of the six different faces of a cube has been coated with a different colour i.e., V, I, B, G, Y and O. Following information is given:
1. Colours Y, O and B are on adjacent faces.
2. Colours I, G and Y are on adjacent faces.
3. Colours B, G and Y are on adjacent faces.
4. Colours O, V and B are on adjacent faces.
Which is the colour of the face opposite to the face coloured with O?
(a) B  (b) V
(c) G  (d) I

75. Consider the following statements followed by two conclusions:
Statements : Some men are great.
             Some men are wise.

Conclusion I : Men are either great or wise.
Conclusion II : Some men are neither great nor wise.
Which one of the following is correct?
(a) Only conclusion I is valid
(b) Only conclusion II is valid
76. Consider the following statements:
1. Some claim to have seen UFOs (Unidentified Flying Objects).
2. Life on other heavenly bodies is considered to be a possibility.
3. Voyage to space is now an established fact.
From the above statements, it may be concluded that
(a) UFOs are heavenly bodies
(b) UFOs are sent from other heavenly bodies
(c) Some living species in other heavenly bodies are more intelligent than man
(d) Nothing definite can be said about the UFOs

77. If ABC × DEED = ABCABC; where A, B, C, D and E are different digits, what are the values of D and E?
(a) D = 2, E = 0  (b) D = 0, E = 1
(c) D = 1, E = 0  (d) D = 1, E = 2

78. Year-wise variation of the price of a certain commodity is shown in the following graph:

The price of the commodity in the year 1990
(a) must have been `10/-
(b) must have been `12/-
(c) must have been any where between `10/- and `20/-
(d) is higher than that in the year 1991

79. The proportion of expenditure on various items by two families A and B are represented in the following Bar Charts:

From these charts, we can conclude that
(a) Family A spent more money on food than Family B.
(b) Family B spent more money on food than Family A.
(c) Family A and Family B spent the same amount on food.
(d) The expenditure on food by Family A and Family B cannot be compared.

80. Usha runs faster than Kamala, Priti runs slower than Swati, Swati runs slower than Kamala. Who is the slowest runner?
(a) Kamala  (b) Priti  (c) Swati  (d) Usha
1. (a) is correct as this assumption is inherent in the first part of the passage which says that the richer states, having grown, have the capability to share India's burden of becoming eco-friendly.
(b) is absurd as nowhere the passage talks about poor states being dependent on rich States for electricity.
(c) is wrong as clean energy projects are more expensive than the traditional fossil fuels.
(c) is wrong as the major cause of high carbon emissions in India is development using cheaper energy sources which have higher carbon emissions.
2. (d) (a) is wrong as the passage is not at all related to Male chauvinism and infidelity
(b) is wrong as Love and betrayal is not the issue the passage is trying to sensitise about. The passage is more about a mothers' influence on her child. How she governed his life?
(c) is wrong as the passage is not at all related to Lack of legal safeguards for women. Guleri didn't resorted for any such protection.
(d) is correct as discussed in (b). The real reason behind this situation was Manak's mother. He could not realise her wife's love as he was under the influence of her mother's mindset.
3. (b) is correct as it talks about absolute social security to all the citizens which is the essence of the passage. Refer the 1st sentence, 'to free every man from fear, that. he may live in all possible security.'
(c) is wrong as the passage does not talk about absolute liberty in all matters of life rather it calls to develop the citizen's minds and bodies in security. Refer last sentence.
(d) is wrong as the passage talk about absolute security and not just physical security as 'all possible security' mentioned in 1st sentence refers to physical and mental (refer last sentence) security.
4. (b) is wrong as the passage does not talk about organisational expansion of municipal bodies all over the country.
(b) is correct as the passage clearly talks about lack of adequate staff with required skills and competencies in the municipal corporations or local government bodies and that these skills are very much required as the operations are quite complex. Hence the assumption that our cities can provide better quality of life with quality staff is clearly marked out.
(c) is wrong as the passage does not talk about the reasons for the lack of skilled staff.
(d) is wrong as the demographic dividend and the problems associated with rapid urbanization are out of context of the passage.
5. (c) (a), (b) and (d) are wrong as they talk about birds in general. The passage talks specifically about Flamingos.
(c) is correct as it talks about some species of birds.
6. (d) is wrong as it is out of context of the passage. Further extended MGNREGS only to those who have a bank account would go against the very essence of the scheme.
(b) is wrong in spite of the paper-based system of payments being more efficient than electronic payment system. This is not the main message of the passage.
(c) is wrong as it negates the fact mentioned in the passage. Refer the second sentence which says, 'electronic wage payments in MGNREGS are meant to go directly to the poor.'
(d) is absolutely correct as the opening sentence clearly says that citizens living in rural areas, are financially illiterate. So it is essential to provide financial literacy to the rural poor.
7. (c) is wrong as the passage does not talk about focusing only on human development. It do talks about an unbalanced emphasis on growth but that, in any case, does not mean focusing only on human development.
2 is absolutely correct as the passage clearly says an unbalanced emphasis on growth is often associated with negative environmental consequences and adverse distributional effects.
1 is wrong as it is completely out of context of the passage.
8. (b) is wrong as the passage nowhere talks about economic disparity rather it talks about health, education or other non-income aspects of human development. The passage is essentially about drawing a balance between economic growth and human development.
2 is the correct assumption as unbalanced growth sometimes lead to environmental degradation.
9. (b) A < B < C
Now, compared to A, C runs faster than A.
10. (c) According to question, A, B, C and D each carry `100.
\[ \text{A} \xrightarrow{20} \text{B} \xrightarrow{10} \text{C} \xleftarrow{30} \text{D} \]
\[ 80 \quad 120 \quad 140 \quad 70 \]
Here, option (c) is not correct. C has more than what A and D have together.
11. (c) 

Number of population who read the magazine
= \((45 + 55 + 40) - (30 + 25 + 15) + 10\)
= 140 – 70 + 10
= 80%

Number of population who do not read magazine
= 100 – 80 = 20%

12. (c) Cauliflower > Lady finger > Cabbage
But Peas > Cabbage
The conclusion that can be drawn from these statements is that cabbage is the least tasty among the four vegetables.

13. (b) After both have travelled 3 km, their positions would be on follows.

```
Left

1 km

S

R

1 km

Right

Destination point
```

Hence, (b) is correct.

14. (a) Total distance = 500m
Distance covered by A = 500m
Distance covered by B = 500 – 45 – 35
= 500 – 80
= 420

\[
\text{speed of A} = \frac{\text{distance of A}}{\text{time}} = \frac{500}{\text{time}} = \frac{500}{420} = \frac{25}{21}
\]

15. (a) Let the capacity of each of the equal glass = x litre
Each glass containing \(\frac{x}{3}\) and \(\frac{x}{4}\) of milk.
The quantities of milk in first and the second glasses were \(\frac{x}{3}\) and \(\frac{x}{4}\) respectively

\[
= \left(\frac{x}{3} + \frac{x}{4}\right) = \frac{4x + 3x}{12} = \frac{7x}{12}
\]
So, the quantities of water in the first and the second glasses were

\[
= \left(\frac{x}{3} \cdot \frac{3x}{4}\right) = \frac{8x + 9x}{12} = \frac{17x}{12}
\]

Ratio of milk and water = \(\frac{7x}{12} : \frac{17x}{12}\) or 7 : 17

16. (a)

```
62
English

24
2

52
Mathematics
```

Total students = 130
Total students failed = (62 + 52) – 24
= 114 – 24 = 90

Number of students passed finally = 130 – 90 = 40

17. (c) Let a = Speaks one language
Let b = Speaks two language
Let c = Speaks three language
then
\[a + 2b + 3c = 6 + 15 + 6\]
\[a + 4 + 3 = 27\]
a = 20
\[\therefore \text{Total number of persons in the group} = 20 + 2 + 1 = 23.\]

18. (c) Let number of cars be x
Let number of scooters / motor bikes = y
\[\therefore \text{Total number of parked vehicles} = x + y\]
According to question
\[4x + 2y = 2(x + y) + 100\]
\[4x + 2y = 2x + 2y + 100\]
x = 100
\[x = 50\]

Hence, Number of cars parked is 50.

19. (c) The passage clearly talks about the role Mangroves play in some of the coastal food chains. Other food chains - with or without Mangroves - might exist but they are not mentioned in the passage. So (c) is correct. The passage does not say that no food chain is possible without Mangroves so (a) is wrong. (b) is also wrong as the passage does not talk about Mangroves being an essential component of all marine
ecosystems. Further (d) is also wrong for the same reasoning as the passage does not talk about the composition of marine flora and fauna.

20. (d) (a) is wrong because the sentence says that liberty means the eager maintenance of that atmosphere which might require restrictions as well. 
(b) is wrong because if the people work only according to the law they might become good citizens but might not work to their best selves. 
(c) is wrong because if people do what they desire it might lead to materialist thinking which is not the best self.  
(d) is correct because with the growth of human personality the people would be their best selves. 

21. (a) (a) is not or least essential as a part of the argument because it is irrelevant in the context of the passage. 
(b) is essential as a part of the argument as the ‘super’ and ‘sub’ human beings refers to the ‘few select citizens’ and the ‘excluded ones’.  
(c) is essential as a part of the argument as the second sentence clearly says this.  
(d) is essential as the recognition of disparities in individual capacities leads to the exclusion policies. 

22. (d) (a) is wrong as it states a fact mentioned in the passage. It does not sum up the passage. 
(b) is wrong as the passage does not restrict the problem to the developing countries only. 
(c) is wrong as the passage only says that the food production will have to double. It does not talk about food scarcity at all. Rather it talks about how to meet the required target. 
(d) correctly sums up the passage. Food security is increasingly a collective challenge and the passage suggests means to combat it. 

23. (b) (a) is wrong as the passage says that if we can cut our defence expenses we can find peace or Building of weapons systems by us will instigated our neighbours to wage wars against us is a false propaganda.  
(b) is correct as the passage supports weapon-building by India. It can also be inferred from the passage that India wants to establish peace with our neighbours. So ‘weapon-building would lessen the possibility of armed conflict with our neighbours’ is the most valid assumption. 

Although (c) is also an assumption but use of the words ‘state of the art and national security’ does not make it the most valid assumption.  
(d) is an inference but not an assumption. 

24. (c) The questions asks for the critical inference. (d) is a wrong as it presents a contradictory logic as mentioned in the passage. (a) and (b) are correct statements in the context of the passage but they present only part logic of the passage. Only (c) presents the most critical inference as it highlights the problem and the solutions mentioned in the passage. 

25. (b) The passage talks about the preserved and processed foods or the Food processing industry and the various impacts it produces - pollution, wastage of food and rain forests, reduced nutritional content, increased demand for preservation and packaging. All this leads to put a burden on our natural resources. So 2 is true. 1 is not correct as the passage does not talk about the regionally grown food. It talks about regions with good produce feeding other parts of the world leaving their own region hungry. So 1 is not correct. 

26. (a) The first six sentences of the passage clearly answers the question. (b), (c) and (d) are clearly mentioned in these sentences. It is not mentioned that the author has no intention to waste his time but what is mentioned is that his constitutional shyness saves or spares him a lot of time. 

27. (a) The first half or the first 7-8 sentences of the passage clearly explains the shyness of the author or his hesitancy in speech which has restrained his thoughts. As a result no thought less word is uttered from him while speaking or writing and hence he has never regretted his speech or writing. This has spared him from many a mishap and waste of time. Immense patience and spiritual person cannot be related to him at all. The author sarcastically mentions that ‘silence is part of the spiritual discipline of a votary of truth’. So (a) is correct answer. 

28. (d) The 10th sentence of the passage ‘Proneness to exaggerate, to ______ in order to surmount it’ clearly suggests ‘tendency to overstate’ as the answer. So (d) is correct answer. 

29. (d) We cannot predict the number of dinners for a particular member from the given data. It may be possible that by choosing members from picking lots, one may have to host a dinner more than one times. 

30. (a) The product of price (in /litre) and the monthly consumption (in litres) is constant. This constant is equal to 2400. 

\[
\text{Expected consumption when the price goes up to } 80 \\
\text{per litre} = \frac{2400}{80} = 30 \text{litres}
\]

31. (a) The ‘Δ’ is shifting one corner to the next in the clockwise direction and each time it is getting inverted. Thus, the Δ should appear at the top left corner pointing upward. Rest of the elements are shifting positions in the counter clockwise direction. 

32. (a) In each column, let the number at the top be ‘x’ and the one at the bottom is ‘(x – 1)’. The relation between columns are given by 

\[(x)(x – 1) = 3(3 – 1) = 6
\]

Therefore, \[5(5 – 1) = 20\] 

33. (c) 

\[\begin{array}{cccc}
7 & x & 21 & 31 \\
+6 & +8 & +10 & +12 \\
\end{array}\]

34. (d) By combining the given fragment, we get figure (d). 

35. (b) Let each question carry x marks. 

According to question 

\[\Rightarrow 8x \times \frac{50}{100} = 40\]
36. (d) Let the son’s age = $x$
   Age of Father = $9x$
   Age of Mother = $8x$
   Now, According to question
   $8x + 9x = 51$
   $\Rightarrow 17x = 51$
   $x = 3$ years

37. (c) Given, A is tallest among the four. Hence, A is male, D is also male, as D is the brother of B. Then, B and C are females. D is the husband of C. D is the shorter than A and is taller than B. These, B is the shorter from above only (c) is incorrect.

38. (b)

39. (a) Radha did not accept the argument that a person becomes a better boxer after meditation. The reason for this is that a boxer, according to her, should be aggressive. This indicates that Radha believes that meditation makes a person less aggressive.

40. (b) The given statement can be represented as–

41. (d) The passage clearly talks about the high inflation in India and its inability to contain it due to the innumerable external factors which are a result of the economic reforms. So (d) is correct.
   (a) is wrong as it talks about avoiding all trade liberalisation policies and all subsidies which is more of a solution of the problem of inflation but not a message of the passage.
   (b) is wrong as it talks about reasons for India’s non-readiness to take up the trade liberalisation process. It is out of scope of the passage

(c) is wrong as the passage does not talk about poverty at all.

(d) is wrong as it negates the basic premise of the passage. According to the passage ‘No Right is absolute, exclusive or inviolable whereas (a) says that The Right of personal property is a Natural Right.

(b) is wrong as it presents another extreme stand on Personal property by equating it to theft and an instrument of exploitation. It misses out the assumed legitimacy of the right and does not see it in the context.

(c) is wrong as it talks about The Right of personal property being violative of distributive justice and negating the principle of cooperation. It does not explain the argument.

(d) is correct as it clearly explains the argument by mentioning that the Right of each person to acquisition of property has to be reconciled with that of others. Refer the principle of cooperation mentioned in the last sentence.

42. (d)

Note: Economic justice, which touches the individual person as well as the social order, encompasses the moral principles which guide us in designing our economic institutions. These institutions determine how each person earns a living, enters into contracts, exchanges goods and services with others and otherwise produces an independent material foundation for his or her economic sustenance. The ultimate purpose of economic justice is to free each person to engage creatively in the unlimited work beyond economics, that of the mind and the spirit.

The Three Principles of Economic Justice: Like every system, economic justice involves input, output, and feedback for restoring harmony or balance between input and output. Within the system of economic justice as defined by Louis Kelso and Mortimer Adler, there are three essential and interdependent principles: Participative Justice (the input principle), Distributive Justice (the out-take principle), and Social Justice (the feedback principle). Like the legs of a three-legged stool, if any of these principles is weakened or missing, the system of economic justice will collapse.
43. (a) (a) is correct as the passage talks about the conflict between man and State. Moreover, the passage confirms that this is a continuous tussle and is as old as the state history. The solution seems to be still far off suggests that the conflict will remain unresolved.

(b) and (d) are wrong as they present only the idea contained in the last line of the passage.

(c) is wrong as the passage clearly mentions that old values and ideas constantly yield place to new ones which is contrary to what is mentioned in (c). Moreover, it is not the author’s viewpoint.

44. (c) The passage clearly talks about 1 and 3. Refer the 4th sentence, 'The scale and magnitude of the financial support ______ multilateral negotiations under the United Nations Framework Convention on Climate Change (UNFCCC)', which mentions 1 and 3 both. Crop failure, which is an effect of climate change, is not mentioned in the passage.

45. (c) Refer the 5th sentence, 'The Convention squarely puts the ______ stock of greenhouse gases (GHGs) in the atmosphere', which clearly mentions 3. 1 and 2 are not mentioned in the passage.

46. (a) Refer the second last sentence, 'Given the magnitude of the task and the funds required, domestic finances are likely to fall short of the current and projected needs of the developing countries', which clearly shows that climate change is likely to have implications on their domestic finances. 2 is not mentioned in the passage.

47. (a) The passage clearly depicts the tussle between developed and developing countries regarding support for mitigation. The developing nations need financial support to adapt to the new measures and they want the developed nations to bear the expense of what they have caused. (b), (c) and (d) are wrong because the passage does not mention either of exploitation of natural resources, lack of political will or governance problems.

48. (c) Between 6 PM and 7 PM, the hour hand and the minute hand coincide at 6 hr ‘m’ minutes.

\[ m = \frac{30 \times 2}{11} = \frac{30 \times 6 \times 2}{11} = \frac{328}{11} \text{ mins.} \]

Hence, the hour hand and minute hand coincide at 6 hr 32\(\frac{8}{11}\) mins.

After 3 minutes, i.e. at 6:36 PM the minute hand of a clock will be ahead of the hour hand by 3 minutes.

49. (c) Here are five persons, and 5 tasks

So, When T2 task is fixed for person 3

<table>
<thead>
<tr>
<th>Task</th>
<th>1</th>
<th>2</th>
<th>T2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

Task 1 no. of ways = 2
Task 2 no. of ways = 1
Task 3 no. of ways = 3

Task 4 no. of ways = 3
Task 5 no. of ways = 3

Total no. of ways for condition I = 3 + 3 + 3 + 2 + 1 = 12

Condition II

When task T2 is given to person 4

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

No. of ways for Task T1 = 2
No. of ways for Task T2 = 1
No. of ways for Task T3 = 3
No. of ways for Task T4 = 3
No. of ways for Task T5 = 3

Total number of ways for condition II = 3 + 3 + 3 + 2 + 1 = 12

Total number of ways for condition I and II = 12 + 12 = 24

50. (a) Let the Income of Peter and Paul are 4x and 3x

Let the Expenses of Peter and Paul are 3y and 2y

So, According to question

\[ 4x - 3y = 6000 \quad \text{... (i)} \]

\[ 3x - 2y = 6000 \quad \text{... (ii)} \]

Now, From equation (i) and equation (ii)

\[ 4x - 3y = 3x - 2y \]

\[ \therefore x = y \Rightarrow y = x \]

Now, put the value of y in equation (i), we get

\[ \Rightarrow x = 6000 \]

\[ \therefore 4x = 24000 \quad 3x = 18000 \]

Monthly Incomes of Peter and Paul are \$24000 and \$18000 respectively.

51. (b) Average speed of two cars at a speed \(V_1\) and \(V_2\) km/hr

\[ \frac{2V_1V_2}{V_1 + V_2} = \frac{2 \times 40 \times 60}{60 + 40} = \frac{2 \times 40 \times 60}{100} = 48 \text{ km/hr} \]

Sol. 52 & 53.

<table>
<thead>
<tr>
<th>E A C B/D F D/B</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 21 20 19 18 17</td>
</tr>
</tbody>
</table>

52. (b) F is 18 years old.

53. (b) Two orders is possible in increasing age.

54. (c) Let x be the number of women.

Let y be the number of men.

Total number of hand shakes = \(xy = 24\)

Then, the possible factors of x and y are x = 6 or 4, y = 4 or 6

Number of hugs = \(^3C_2 + ^4C_2\)

\[ = ^6C_2 + ^4C_2 = \frac{6 \times 5}{2 \times 1} + \frac{4 \times 3}{2} = 15 + 6 = 21 \]
55. (d) | Shabnam  | Marathi  | No Driving |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Anil</td>
<td>Tamil</td>
<td>No Driving</td>
</tr>
<tr>
<td>Rekha</td>
<td>Tamil/Marathi</td>
<td>Driving</td>
</tr>
<tr>
<td>David</td>
<td>Marathi/Tamil</td>
<td>Driving</td>
</tr>
</tbody>
</table>

From above table, it can be concluded that only of those who can drive car can speaks Tamil.

56. (d) ![Diagram]

From above diagram, it is clear that Y, V and W are parallel.

57. (d) Let 'g' be the cost of goats.

\[
4g < \text{Cow} < 5g
\]

Now, Given a goat price = `600
\[
2400 < \text{Cow} < 3000 \quad \text{(i)}
\]

Given, a goat price = `800
\[
3200 < \text{Cow} < 4000 \quad \text{(ii)}
\]

Hence, it can be seen that from above equations that cow cost is between `2400 and `4000.

58. (b) ![Diagram]

From above table, it is clear that A, E and F are fighters.

59. (b) White Marbles | Red Marbles  
10 | 13  
White Marbles | Green Marbles  
10 \* y | 5  
Now, total number of Marbles = 5 + 10 + 13 = 28

60. (c) Let initial population be 100

<table>
<thead>
<tr>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>33</td>
<td>21</td>
</tr>
</tbody>
</table>

It is clear that more men cleared the examination than women.

61. (b) A corollary is a proposition that follows from one already proved. (b) is the most appropriate as the passage clearly states that poverty and climate impacts reinforce each other. Poverty leads to climate deterioration (due to unsustainable use of resources, refer last line) and climate change leads to poverty.

(a) and (c) are wrong as they talk about poverty alleviation, increase in food subsidies, etc. in alienation. They have got nothing to do with climate change.

(d) is wrong as it suggests solution to curb climate change (stop unsustainable agricultural practices) and poverty (control food prices). It does not talk about their inter-dependence.

62. (d) The passage asks for the most rational and critical inference from the passage. (a) is wrong as it just portrays one part of the passage. The portfolio investments have both the good and bad effects. (b) is wrong as the passage suggests threat from the portfolio investments. It cannot be stated from the passage that Advanced economies will always undermine the global financial stability. There are a lot of other external factors working simultaneously. For similar reasons (c) is wrong. (d) is the most rational and critical inference as portfolio investments definitely impacts emerging economies in certain cases so there is a risk.

Note: Portfolio investments: Portfolio investments are passive investments, as they do not entail active management or control of the issuing company. Rather, the purpose of the investment is solely financial gain. This is in contrast to foreign direct investment (FDI), which allows an investor to exercise a certain degree of managerial control over a company. For international transactions, equity investments where the owner holds less than 10% of a company's shares are classified as portfolio investments. These transactions are also referred to as "portfolio flows" and are recorded in the financial account of a country's balance of payments. Portfolio investments include transactions in equity securities, such as common stock, and debt securities, such as banknotes, bonds, and debentures.

Quantitative Easing: Quantitative easing (QE) is a type of monetary policy used by central banks to stimulate the economy when standard monetary policy has become ineffective. A central bank implements quantitative easing by buying financial assets from commercial banks and other financial institutions, thus raising the prices of those financial assets and lowering their yield, while simultaneously increasing the money supply. This differs from the more usual policy of buying or selling short-term government bonds to keep interbank interest rates at a specified target value.
Quantitative easing can help ensure that inflation does not fall below a target. Risks include the policy being more effective than intended in acting against deflation (leading to higher inflation in the longer term, due to increased money supply), or not being effective enough if banks do not lend out the additional reserves.

63. (b) (a) is out of context of the passage. The passage does not talk about resources to afford a latrine for each household.
   (c) is wrong as the passage does not talk about the reduction of the human capital of India's workforce.
   (d) is wrong as the passage suggests open defecation as a public health problem in India. Refer last 3rd sentence, 'Diarrhoea leaves Indians' bodies smaller on average than those of people in some poorer countries where people eat fewer calories.'
   (b) is the most critical inference as it has severe effects - malnourishment, diarrhoea, underweight mothers - on a huge Indian population and needs immediate attention.

64. (b) (a) is wrong as it is a general statement and does present the crux of the passage.
   (c) is wrong as the opening line of the passage says that people talk about democracy (or understand democracy) but they have a weakness favouring their caste or community or religion.
   (d) is wrong as it projects an extreme situation which is out of the scope of the passage.
   (b) is the most appropriate statement as it talks about providing equal opportunities to all irrespective of the caste or community or religion. That's what is a True democracy.

65. (b) Clearly only 2 is correct. 1 is wrong as the passage says that 'Such access is not always available to all people in developing countries like India and more so, in rural areas.' This means that they are sometimes available.2 is correct as mentioned in the last sentence of the passage.

66. (d) The crucial message conveyed in the passage is to promote financial inclusion such that every citizen of the country has access to bank accounts and can save money so as to have better finances. Establishing more banks is a route to financial inclusion. Increasing the interest rate of bank deposits would promote savings. So (d) is correct.

67. (b) (a) is clearly wrong as the passage nowhere talks about discretion power in all matters of administration. It talks about certain situations mentioned in the 1st sentence.
   (b) is correct as the passage talks about the supremacy of rules and safeguards, refer last sentence. Further the 3rd sentence, 'Where discretion has to be ................. misuse of that power reinforces the prevalence of rules and safeguards as opposed to the influence of exclusive discretion of authority.
   (c) is wrong as it negates what the passage mean by Parliamentary democracy - authorized by the people.

68. (d) Number of ways to select Principal = \( ^2C_1 \)
   Number of ways to select Vice Principal = \( ^5C_2 \)
   Total number of ways = \( ^2C_1 + ^5C_2 \)
   \[ = 2 + \frac{5 \times 4}{2 \times 1} = 2 + 10 \]
   Number of possible combinations of selecte
   \[ = 2 \times 10 = 20 \]

69. (c) If mathematics I is not opted, then two subjects out of four subjects have to be opted for.
   \[ \therefore \text{Number of ways in which two subjects can be opted for } \]
   \[ = \frac{4 \times 3}{2} = 6 \]
   It mathematics II is opted, then it can be offered only if mathematics I is also opted for Number of ways in which two subjects can be opted for
   \[ = 6 + 1 = 7. \]

70. (d) Let number of a pairs of brown socks = y
    Price of brown socks = x
    Price of black socks = 3x
    According to question
    \[ \Rightarrow 5 \times 3x + yx = 100 \]  \(...(i)\)
    Now, clerk has interchanged socks pairs then price is increased by 100%
    \[ 3xy + 5x = (15x + yx) \times \frac{100}{100} \]
    \[ = 3xy + 5x = 30x + 2xy \]  \(...(ii)\)
    \[ \Rightarrow 30x + 2yx = 3xy + 5x \]
    \[ \Rightarrow 25x = xy \]
    \[ y = 25 \]
    \[ \therefore \text{So, number of brown socks } = 25 \]

71. (*) Data Inconsistent.

72. (a) From given years 2000 to 2007
    Earnings of A > Earnings of B
    So, Average of A > Average of B
    Hence, It can be conducted that the average A earned more than B during this period.

73. (b) Time taken by both tanks = \[ \frac{30 \times 20}{30 + 20} \]
    \[ = \frac{30 \times 20}{50} \]
    \[ = 12 \text{ min} \]

74. (c) From 2 and 3, I and B are on opposite faces. From 1 and 4, Y and V are adjacent to O.

```
  Y
 / \
I   O   B
 \
V   G
```

Hence, G is the colour of the face opposite to the face coloured with O.
75. (d) 

Wise Men Great

or

Wise Men Great

Conclusion I : False
Conclusion II : False

76. (d)

77. (c) ABC × DEED = ABCABC
We know that, when we write any Number in form of ABCABC then that number must be divisible by 13 , 11 and 7 or ABCABC is multiple of 1001
So, 1001 = DEED
1001 = 13 × 11 × 7
ABC × DEED = ABCABC
⇒ ABC × 1001 = ABCABC
On comparing
D = 1, E = 0

78. (c) From the graph commodity price are between ` 10 and ` 20.

79. (c) A spent on food = 20,000 × \frac{50}{100} = ` 10000

B spent on food = 1,00,000 × \frac{10}{100} = ` 100,00
So, Both A and B spent same amount on the food.

80. (b) According to question,
Priti < Swati < Kamala < Usha
From the above, it can concluded that priti is the slowest runner.