DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO.

CIVILS 360's PRELIMSURE 2020 TEST SERIES GENERAL STUDIES PAPER-II TEST 6

Time Allowed: 2 Hours Maximum Marks: 200

INSTRUCTIONS

1.	IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD
	CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR
	MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST
	BOOKLET.

2. Yo	u have	to	enter	vour	Roll	
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Number/Name on the Test Booklet in						
the Box provided alongside. DO NOT						
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- 3. This Test Booklet contains **80 items** (questions). Each item is printed only in English. 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.
- 4. You have to mark all your responses *ONLY* on the separate Answer Sheet provided. See directions in the Answer Sheet.
- 5. All items carry equal marks.
- 6. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
- 7. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator *only the Answer Sheet.* You are permitted to take away with you the Test Booklet.
- 8. Penalty for wrong answers:
 - THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
 - (i) There are four alternatives for the answer to every question. For each question 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 the 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.

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Directions for the following 3 (three)

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

- 1. 4, 9, 16, 25, ?
 - (a) 32
 - (b) 42
 - (c) 55
 - (d) 36
- 2. 2, 6, 12, 20, 30, 42, 56, ?
 - (a) 60
 - (b) 64
 - (c) 70
 - (d) 72
- 3. 79, 87, ?, 89, 83
 - (a) 80
 - (b) 81
 - (c) 82
 - (d) 88

Directions for the following 7 (seven)

items: Read the following three passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage 1

Education, without a doubt, has an important functional, instrumental and utilitarian dimension. This is revealed when one asks questions such as 'what is the purpose of education?'. The answers, too often, are 'to acquire qualifications for employment/ upward mobility', 'wider/higher (in terms of income) opportunities', and 'to meet the needs for trained human power in diverse fields for national development'. But in its deepest sense education is not instrumentalist. That is to say, it is not

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to be justified outside of itself because it leads to the acquisition of formal skills or of certain desired psychological social attributes. It must be respected in itself. Education is thus commodity to be acquired or possessed and then used, but a process of inestimable importance to individuals and society, although it can and does have enormous use value. Education then, is a process of expansion and conversion, not in the sense of converting or turning students into doctors or engineers, but the widening and turning out of the mind—the creation, sustenance and development awareness self-critical independence of thought. It is an inner process of moral-intellectual development.

- 4. What do you understand by the 'instrumentalist' view of education?
 - (a) Education is functional and utilitarian in its purposes.
 - (b) Education is meant to fulfil human needs.
 - (c) The purpose of education is to train the human intellect.
 - (d) Education is meant to achieve moral development.
- 5. According to the passage, education must be respected in itself because
 - (a) it helps to acquire qualifications for employment
 - (b) it helps in upward mobility and acquiring social status
 - (c) it is an inner process of moral and intellectual development
 - (d) All the (a), (b) and (c) given above are correct in this context.
- 6. Education is a process in which
 - (a) students are converted into trained professionals.



- (b) opportunities for higher income are generated.
- (c) individuals develop self-critical awareness and independence of thought.
- (d) qualifications for upward mobility are acquired.

Passage 2

Now India's children have a right to receive at least eight years of education, the gnawing question is whether it will remain on paper or become a reality. One hardly needs a reminder that this right is different from the others enshrined in the Constitution, that the beneficiary - a six year old child cannot demand it, nor can she or he fight a legal battle when the right is denied or violated. In all cases, it is the adult society which must act on behalf of the child. In another peculiarity, where a child's right to education is denied, no compensation offered later can be adequate or relevant. This is so because childhood does not last. If a legal battle fought on behalf of a child is eventually won, it may be of little use to the boy or girl because the opportunity missed at school during childhood cannot serve the same purpose later in life. This may be painfully true for girls because our society permits them only a short childhood, if at all. The Right to Education (RTE) has become law at a point in India's history when the ghastly practice of female infanticide has resurfaced in the form of foeticide. This is "symptomatic of a deeper turmoil" in society which is compounding the traditional obstacles to the education of girls. Tenacious prejudice against the intellectual potential of girls runs across our cultural diversity and the system of

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education has not been able to address

- 7. With reference to the passage, consider the following statements:
 - 1. When children are denied education, adult society does not act on behalf of them.
 - 2. Right to Education as a law cannot be enforced in country.

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

Passage 3

Modern economic theory does differentiate between renewable and non-renewable materials, its approach is to measure everything by means of a money price. Thus, taking various alternative fuels like coal, oil, and water-power; the only difference between them recognised by modern economics is relative cost per equivalent unit. The cheapest automatically the one to be preferred, as to do otherwise would be irrational and uneconomic. From a Buddhist point of view, of course, this will not do since the difference essential between renewable fuels like coal and oil on the one hand and renewable sources like wind power and water-power on the other cannot be simply overlooked. Nonrenewable goods must be used only if their use is indispensable, and then only with the greatest care and highest concern for conservation. To use them carelessly or extravagantly is an act of violence, and while complete nonviolence may not be possible on this



earth, it is nonetheless a duty of man to aim at the ideal of non-violence in all he does.

- 8. Which of the following statements is/are correct on the basis information in the above passage?
 - 1. Buddhist economists totally prohibit the use of nonrenewable source
 - 2. The attitude of modern economists towards natural resources is uneconomic.
 - 3. Complete non-violence is not possible.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) 3 only
- (d) 1 and 3
- 9. The Buddhist viewpoint implies:
 - (a) conservation should be given the highest consideration
 - (b) hydel projects are highly capital intensive
 - (c) oil is to be preferred since it does not produce ash
 - (d) money economics should govern the choice of energy sources
- 10. Buddhist economists are not in favour of:
 - (a) economic development
 - (b) world economy being governed by oil prices
 - (c) using non-renewable sources indiscriminately
 - (d) harnessing wind energy

Directions for the following 2 (two) items: In each of the two following questions, four alternatives are given, out of which three are alike in a certain

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way while one is different. Choose the odd

- 11. Find the odd one out:
 - (a) Tree
 - (b) Root
 - (c) Flower
 - (d) Leaf
- 12. Find the odd one out:
 - (a) English
 - (b) Encyclopedia
 - (c) Russian
 - (d) German
- 13. Pointing towards a photograph, Mr. Sharma said, "She is the only daughter of mother of my brother's sister." How is Mr. Sharma related to the lady in the photograph?
 - (a) Cousin
 - (b) Sister
 - (c) Aunt
 - (d) Daughter in law
- 14. A is the son of C; C and Q are sisters; Z is the mother of Q and P is the son of Z. Which of the following statements is true?
 - (a) P and A are cousins
 - (b) P is the maternal uncle of A
 - (c) Q is the maternal grandfather of Α
 - (d) C and P are sisters

Directions for the following 9 (eight)

items: Read the following two passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage 1

Invasions of exotic species into new geographic areas sometimes naturally and without human agency.



However, human actions have increased this trickle to a flood. Human-caused introductions may occur either accidentally as a consequence of human transport, or intentionally but illegally to some private purpose legitimately to procure some hoped-for public benefit by bringing a pest under control, producing new agricultural products or providing novel recreational opportunities. Many introduced species communities are assimilated into without much obvious effect. However, some have been responsible for dramatic changes to native species and natural communities. For example, accidental introduction of the brown tree snake Boiga irregularis into Guam, an island in the Pacific, has through nest predation reduced 10 endemic forest bird species to the point of extinction. One of the major reasons for the world's great biodiversity is the occurrence of centers of endemism so that similar habitats in different parts of the world are occupied by different groups of species that happen to have evolved there. If every species naturally had access to everywhere on the globe, we might expect a relatively small number successful species to become dominant in each biome. The extent to which this homogenization can happen naturally is restricted by the limited powers of dispersal of most species in the face of the physical barriers that exist to dispersal. By virtue of the opportunities offered transport humans, these barriers have been breached by an ever-increasing number of exotic species. The effects of introductions have been to convert a hugely diverse range of local community compositions into something much more homogeneous. It would be wrong,

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however, to conclude that introducing species to a region will inevitably cause a decline in species richness there. For example, there are numerous species of plants, invertebrates and vertebrates found in continental Europe but absent from the British Isles (many because they have so far failed to recolonize after the last glaciations). Their introduction would be likely to augment British biodiversity. The significant detrimental above where effect noted arises aggressive species provide a novel challenge to endemic biotas ill-equipped to deal with them.

- 15. With reference to the passage, which of the following statements is correct?
 - (a) Introduction of exotic species into new geographical areas always leads to reduced biodiversity.
 - (b) Exotic species introduced by man into new areas have always greatly altered the native ecosystems.
 - (c) Man is the responsible in converting a hugely diverse range of local community compositions into more homogeneous ones.
 - (d) All of the statements are correct
- 16. Why does man introduce exotic species into new geographical areas?
 - 1. To breed exotic species with local varieties.
 - 2. To increase agricultural productivity.
 - 3. For beautification and landscaping.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 and 3
- (c) 1 and 3
- (d) 1, 2 and 3



17. How is homogenization prevented under natural conditions?

- (a) Evolution of groups of species specific to local habitats.
- (b) Presence of oceans and mountain ranges.
- (c) Strong adaptation of groups of species to local physical and climatic conditions.
- (d) All the statements (a), (b) and (c) given above are correct in this context.

18. How have the human beings influence the biodiversity?

- 1. By smuggling live organisms.
- 2. By building highways.
- 3. By making ecosystems sensitive so that new species are not allowed.
- 4. By ensuring that new species do not have major impact on local species.

Which of the statements given above are correct?

- (a) 1 and 2
- (b) 2 and 3
- (c) 1 and 3
- (d) 2 and

Passage 2

Chemical pesticides lose their role in sustainable agriculture if the pests evolve resistance. The evolution of pesticide resistance is simply natural selection in action. It is almost certain to occur when vast numbers of a genetically variable population killed. One or a few individuals may be unusually resistant (perhaps because they possess an enzyme that can detoxify the pesticide). If the pesticide is applied repeatedly, each successive generation of the pest will contain a

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larger proportion of resistant individuals. Pests typically have a high intrinsic rate of reproduction, and so a few individuals in one generation may give rise to hundreds or thousands in the next, and resistance spreads very rapidly in a population. This problem was often ignored in the past, even the though first case of DDT (dichlorodiphenyltrichloroethane)

resistance was reported as early as 1946. There is exponential increase in the numbers of invertebrates that have evolved resistance and in the number of pesticides against which resistance has evolved. Resistance has been recorded in arthropod family of (including dipterans such as mosquitoes and house flies, as well as beetles, moths, wasps, fleas, lice and mites) as well as in weeds and plant pathogens. Take the Alabama leaf-worm, a moth pest of cotton, as an example. It has developed resistance in one or more regions of the world to aldrin, DDT, dieldrin, endrin, lindane and toxaphene. If chemical pesticides brought nothing but, problems, — if their use was intrinsically and acutely unsustainable — then they would already have fallen out of widespread use. This has not Instead, happened. their rate production has increased rapidly. The ratio of cost to benefit for the individual agricultural producer has remained in favour of pesticide use. In the USA, insecticides have been estimated to benefit the agricultural products to the tune of around \$5 for every \$1 spent. Moreover, in many poorer countries, the prospect of imminent mass starvation, or of an epidemic disease, are so frightening that the social and health costs of using pesticides have to be ignored. In general the use of pesticides



is justified by objective measures such as 'lives saved', 'economic efficiency of production' and 'total produced'. In these very fundamental senses, their use may be described as sustainable. In practice, sustainability depends on continually developing new pesticides that keep at least one step ahead of the pests - pesticides that are less persistent, biodegradable and more accurately targeted all the pests.

- 19. "The evolution of pesticide resistance is natural selection in action." What does it actually imply?
 - (a) It is very natural for many organisms to have pesticide resistance.
 - (b) Pesticide resistance among organisms is universal а phenomenon.
 - (c) Some individuals in any given population show resistance after the application of pesticides.
 - (d) None of the statements (a), (b) and (c) given above is correct.
- 20. With reference to the passage, consider the following statements:
 - 1. Use of chemical pesticides has become imperative in all the poor countries of the world.
 - 2. Chemical pesticides should not have any role in sustainable agriculture.
 - 3. One pest can develop resistance to many pesticides.

Which of the statements given above is/are correct?

- (a) 1 and 2
- (b) 3 only
- (c) 1 and 3
- (d) 1, 2 and 3

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- 21. Though the problems associated with the use of chemical pesticides is known for a long time, their widespread use has not waned. Why?
 - (a) Alternatives chemical to pesticides do not exist at all.
 - (b) New pesticides are not invented at
 - (c) Pesticides are biodegradable.
 - (d) None of the statements (a), (b) and (c) given above is correct.
- 22. How do pesticides act as agents for the selection of resistant individuals in any pest population?
 - 1. It is possible that in a pest population the individuals will behave differently due to their genetic makeup.
 - 2. Pests do possess the ability to detoxify the pesticides.
 - 3. Evolution of pesticide resistance is equally distributed in pest population.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2
- (c) 3 only
- (d) 1, 2 and 3
- 23. Why is the use of chemical pesticides generally iustified giving by examples poor and developing countries?
 - 1. Developed countries can afford to do away with use of pesticides by adapting to organic farming, but it is imperative for poor and developing countries use chemical pesticides.
 - 2. In poor and developing countries, pesticide addresses problem of epidemic diseases of crops and eases the food problem.



3. The social and health costs of pesticide use are generally ignored in poor and developing countries.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2
- (c) 2 only
- (d) 1, 2 and 3
- 24. My friend and I started walking simultaneously towards each other from two places 100 m apart. After walking 30 m, my friend turns left and goes 10 m, then he turns right and goes 20 m and then turns right again and comes back to the road on which he had started walking. If we walk with the same speed, what is the distance between us at this point of time?
 - (a) 20 m
 - (b) 15 m
 - (c) 200 m
 - (d) 25 m
- 25. A number when successively divided by 7 and 8 leaves the remainders 3 and 5 respectively. What is the remainder when the same number is divided by 56
 - (a) 38
 - (b) 31
 - (c) 37
 - (d) 26
- 26. A boy had to divide 49471 by 210. He made a mistake in copying the divisor and obtained his quotient as 246 with a remainder 25. What divisor did the boy copy?
 - (a) 310
 - (b) 201
 - (c) 102

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- (d) 120
- 27. If the radius of a circle is increased by 10 %, what is the percentage increase in its area?
 - (a) 10%
 - (b) 20%
 - (c) 21%
 - (d) 100%
- 28. The owner of a boutique decides to calculate the percentage of customers who purchase hats. If 40 per cent of the store's customers decide to purchase items, and of those customers 15 percent purchase hats, then what percent of the store's customers purchase hats?
 - (a) 4%
 - (b) 6%
 - (c) 15%
 - (d) 24%
- 29. The ratio between two numbers is 3 : 4. If each number be increased by 2, the ratio becomes 7: 9. Find the numbers.
 - (a) 12 and 16
 - (b) 30 and 40
 - (c) 24 and 32
 - (d) 6 and 8
- 30. A and B invested in the ratio 3:2 in a business. If 5% of the total profit goes to charity and A's share is Rs. 855, find the total profit.
 - (a) Rs. 2500
 - (b) Rs. 2000
 - (c) Rs. 1500
 - (d) Rs. 1750
- 31. Two men, Vikas and Vishal, working separately can mow a field in 8 and 12 hours respectively. If they work in stretches of one hour alternately, Vikas

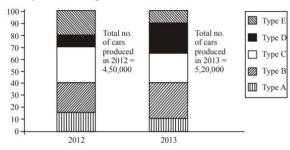


beginning at 8 a.m, when will the mowing be finished?

- (a) 5:30 PM
- (b) 5:30 AM
- (c) 4:00 PM
- (d) 4:30 AM

Directions for the following 5 (five) items: Study the following graph carefully and then answer the questions based on it.

The percentage of five different types of cars produced by the company during two years in given below.



- 32. What was the difference in the production of C type cars between 2012 and 2013?
 - (a) 5,000
 - (b) 7,500
 - (c) 10,000
 - (d) 2,500
- 33. If 85% of E type cars produced during 2012 and 2013 are being sold by the company, then how many E type cars are left unsold by the company?
 - (a) 1,42,800
 - (b) 21,825
 - (c) 29,100
 - (d) 25,200
- 34. If the number of A type cars manufactured in 2013 was the same as that of 2012, what would have been its

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approximate percentage share in the total production of 2013?

- (a) 11
- (b) 13
- (c) 15
- (d) 9

35. Which of the following types of cars was the percentage increase from 2012 to 2013 the maximum?

- (a) A
- (b) E
- (c) D
- (d) B

36. If the percentage production of B type cars in 2013 was the same as that of 2012, what would have been the number of cars produced in 2013?

- (a) 1,12,500
- (b) 1,20,000
- (c) 1,30,000
- (d) Data

Inadequate

Directions for the following 6 (six)

items: Read the following two passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage 1

The art of effective presentation is the fruit of persistent efforts and practice. Your personality is reflected in your presentation. Adequate planning and preparation are essential successful presentation. A thorough preparation is the best antidote for nervousness. If a person is successful in presenting his views and ideas then it will become the greatest obstacle in his career and life. People form a perception about how competent you are by how you present yourself when you stand and speak. A successful



presentation can help a person in winning orders for the company he works for. Most people who work in organizations find that effectiveness and success depend on their ability to organize their ideas and present them effectively. Delivering your message in person provides immediate feedback that helps you clarify points questions. and answer presentations are often more persuasive. As far as possible, one should never read a presentation or memorize it. Then the presentation will lose flexibility and communication will suffer. The spoken word wields great power. Face-to-face interaction demands thinking speaking. Anecdotes, quotations and humorous touches often make interesting. presentation One consult his notes frequently when he is making his presentation. This may create a feeling among listeners that the speaker has taken pains to prepare for the occasion. A positive response will be generated and the speaker will be heard with respect. Speaker's enthusiasm and confidence can influence people to accept or reject an idea in a way that a written document cannot. presentation should be persuasive and should change the audience's attitude. The topic of the presentation must be interesting to the audience. The topic should be of interest to the speaker also otherwise he will go through the motions presentation. making No perfunctory approach should ever be resorted to while making a presentation. It is very important that the speaker is perceived by the audience as credible and qualified to speak about the topic. Speaker must adapt to intellectual level of the audience.

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- 37. Consider the following statements:
 - 1. Persuasive skill-set prerequisite to effective an presentation.
 - 2. At the end of a presentation, offering small gifts to audience by the speaker is a good strategy.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 38. Consider the following statements:
 - 1. Innate stage fright of a speaker can be countered by meticulous preparation of his presentation.
 - 2. Confidence of a speaker is generally taken by the audience as a sign of arrogance.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 39. Consider the following statements:
 - 1. Topic of the presentation must be of relevant interest to the audience to induce their responses.
 - 2. Topic of the presentation may or may not be of intimate interest to the speaker.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 40. Consider the following statements:



- 1. A speaker must memorize his talk so as to introduce more flexibility.
- 2. A written document is more efficacious than an oral presentation as it leaves a lasting impression on the reader.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Passage 2

"Rivers should link, not divide us," said the Indian Prime Minister expressing concern over interstate disputes and urged state governments to show "understanding and consideration, statesmanship and an appreciation of the other's point of view." Water conflicts in India now reach every level; divide every segment of our society, political parties, states, regions and sub-regions within states, districts, castes and groups and individual farmers. Water conflicts within and between many developing countries are also taking a serious turn. Fortunately, the "water wars", forecast by so many, have not yet materialized. War has taken place, but over oil, not water. Water is radically altering and affecting political boundaries all over the world, between as well as within countries. In India. water conflicts are likely to worsen before they begin to be resolved. Till then they pose a significant threat to economic growth, security and health of the ecosystem and the victims are likely to be the poorest of the poor as well as the very sources of water - rivers, wetlands and aquifers. Conflicts might sound bad or negative, but they are logical developments in the absence of

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democratic. legal proper administrative mechanisms to handle issues at the root of water conflicts. Part of the problem stems from the specific nature of water, namely that water is divisible and amenable to sharing: one unit of water used by one is a unit denied to others; it has multiple uses and users and involves resultant trade-Excludability is an inherent problem and very often exclusion costs involved are very high: it involves the issue of graded scales and boundaries and need for evolving a corresponding understanding around them. Finally, the way water is planned, used and managed causes externalities, both positive and negative, and many of them are unidirectional and asymmetric. There is a relatively greater visibility as well as a greater body of experience in evolving policies, frameworks, legal setups and administrative mechanisms dealing with immobile natural resources, however contested the space be. Reformists as well revolutionary movements are rooted in issues related to land. Several political and legal interventions addressing the issue of equity and societal justice have been attempted. Most countries have gone through land reforms of one type or another. Issues related to forests have also generated a body of comprehensive literature on forest resources and rights. Though conflicts over them have not necessarily been effectively adequately resolved, they have received much more serious attention, have been studied in their own right and practical as well as theoretical means of dealing with them have been sought. In contrast, water conflicts have not received the same kind of attention.



- 41. According to the author which of the following is/are consequences of water conflicts?
 - 1. Trans-border conflicts between developing countries.
 - 2. Water bodies will remain unused and unaffected till the conflict is resolved.
 - 3. Water conflicts have altered the political boundaries within countries.

Select the correct answer using the codes given below:

- (a) 1 only
- (b) 2 only
- (c) 3 only
- (d) Both 1 and 3
- 42. Why does the author ask readers not to view conflicts too negatively?
 - 1. Most countries have survived them easily.
 - 2. They bring political parties together.
 - 3. They only affect the grassroot levels.

Select the correct answer using the codes given below:

- (a) 1 only
- (b) 2 only
- (c) Neither 1, 2 nor 3
- (d) All 1. and
- 43. One morning after sunrise, Gopal was facing a pole. The shadow of the pole fell exactly to his right. Which direction was he facing?
 - (a) South
 - (b) East
 - (c) West
 - (d) Data

inadequate

44. In a class of 35 students Kiran is placed 7th from the bottom whereas Sohan is placed 9th from the top. Mohan

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is placed exactly in between the two. What is Kiran's position from Mohan?

- (a) 10
- (b) 11
- (c) 13
- (d) 12

45. A, B and C can do a work in 6, 8 and 12 days respectively. Doing that work together they get an amount of Rs.1350. What is the share of B in that amount?

- (a) Rs. 550
- (b) Rs. 300
- (c) Rs. 450
- (d) Rs.400
- 46. Find the area of a triangle whose sides are 50 m, 78m, 112m respectively and also find the perpendicular from the opposite angle on the side 112 m.
 - (a) 30 m
 - (b) 32m
 - (c) 28 m
 - (d) 34 m
- 47. The sum of length, breadth and height of a room is 19 m. The length of the diagonal is 11 m. what is the cost of painting of total surface area of the room at the rate of Rs.10 per m^2
 - (a) Rs. 240
 - (b) Rs. 2400
 - (c) Rs. 2100
 - (d) Rs. 2200

Directions for the following 4 (four)

items: Read the following one passage and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage 1

An independent, able and upright judiciary is the hallmark of a free



democratic country. Therefore, process of judicial appointments is of vital importance. At present, on account of the Supreme Court's last advisory opinion, the role of the executive and its interference in the appointment of judges is minimal, which, in the light of our previous experience, is most welcome. However, there is a strong National demand for а Judicial Commission on the ground of wider the participation in appointment process and for greater transparency. The composition, the role and the procedures of the proposed National Judicial Commission, must be clearly spelt out, lest it be a case of jumping from the frying-pan into the fire. Recently, there has been a lively debate in England on the subject. A judicial commission has been proposed but there are not many takers for that proposal. In the paper issued this month by the Lord Chancellor's Department on iudicial appointments, the Chancellor has said, "I want every vacancy on the Bench to be filled by the best person available. Appointments must and will be made on merit, irrespective of ethnic origin, gender, marital status, political affiliation, sexual orientation, religion or disability. These are not mere words. They are firm principles. I will not tolerate any form of discrimination." At present, there are hardly any persons from the ethnic minorities manning the higher judiciary and so far not a single woman has made it to the House of Lords. The most significant part of the Lord Chancellor's paper is the requirement "allegations of professional misconduct made in the course of consultations about a candidate for judicial office must be specific and subject to disclosure to

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the candidate". This should go a long way in ensuring that principles of natural justice and fair play are not jettisoned in the appointment process, which is not an uncommon phenomenon

- 48. According to the passage, there has been a demand for a National Judicial Commission to
 - (a) clear the backlog of court cases.
 - (b) make judiciary see eye to eye with executive.
 - (c) wipe out corruption at the highest places.
 - (d) make the appointment process of judges more broad based and clear
- 49. The role and procedure of the National Commission must be spelt out clearly
 - (a) because executive wing will depend on it heavily.
 - (b) because judges will take judicial decisions on the basis of it. .
 - (c) it will be represented by a crosssection of the society.
 - (d) None of these
- 50. What, according to the author, is the typical characteristic of an independent democratic country?
 - (a) Objective process of judicial appointments.
 - (b) Supreme advisory Court's opinion on legal matters.
 - (c) Responsible, free and fair judiciary.
 - (d) Lively and frank debate in the society on the role of judiciary.
- 51. Which of the following forms part of what the Lord Chancellor has said?



- (a) Appointments to judicial posts must take into consideration the aspirations of the weaker sections of the society.
- (b) Vacancies in the judiciary must not remain unfilled.
- (c) Merit should be the sole criterion for judicial appointments.
- (d) Selective discrimination may be preached and also practised.
- 52. Manish ranked sixteenth from the top and twentyninth from the bottom among those who passed examination. Six did boys not participate in the competition and five failed in it. How many boys were there in the class?
 - (a) 45
 - (b) 56
 - (c) 44
 - (d) 55
- 53. In a group of cows and hens, the number of legs are 14 more than twice the number of heads. The number of cows is
 - (a) 5
 - (b) 7
 - (c) 10
 - (d) 12
- 54. Rani, Reeta, Sukhada, Jane and Radhika are friends. Reeta is 18 years of her age, Radhika is younger to Reeta, Rani is in between Radhika and Sukhada while Reeta is in Between Jane and Radhika. If there be a difference of two years between the ages of girls from eldest to the youngest, how old is Sukhada?
 - (a) 10 years
 - (b) 12 years
 - (c) 14 years

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(d) 16

years

55. Five persons entered a lift cabin on the ground floor of an 8-floor house. Suppose that each of them can leave the cabin independently at any floor beginning with the first. What is the total number of ways in which each of the five persons can leave the cabin at any of the 7 floors?

- (a) 7^4
- (b) 7^5
- (c) 7^2
- (d) 7^7

56. There are 10 lamps in a hall. Each of them can be switched on independently. Find the number of ways in which the hall can be illuminated.

- (a) 1024
- (b) 1023
- (c) 1200
- (d) 1030

Directions for the following 6 (six) items: Read the following two passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage 1

The main idea conveyed by the report is that our children do not get a chance to enjoy learning at school because the irrationally svllabi organised, are teaching is text-book centred, and the system of examinations instils fear and encourages mechanical repetition. Textbooks developed along the lines of reconceptualised syllabi can attempt to integrate positive values, life skills, aesthetic sensibility and concern for the environment. They are interactive and make a conscious effort to point both



children and the teachers towards other oflearning sources such as neighbourhood, nature etc. In addition parallel challenges attention. The first is examination reforms. Rigid indifference to individual differences is the major flaw of the present system. From the quality of questions to the manner of evaluation, it drilled preparedness favours ignores independent thought while the unrealistically high cutoffs in coveted colleges are a further sign of systemic inefficiency. It is hardly surprising that the very thought of examinations makes depressed. young Moreover, practices of splitting unified topics into arbitrary bits carrying small marks value encourage teachers to concentrate on scoring topics overlooking importance of perspective and overall understanding. Little surprise that many elite high-fee schools are opting for International Baccalaureate not because it offers status with its global certification but for its flexibility and respect for individual differences in learning. The second area is teacher training, which suffers from obsolete notions. Most teachers are trained mainly to cover the syllabus in a mechanical exam-oriented manner. By insisting that every child move at the same pace in all subjects teachers encourage rote learning and ridicule for those who fall behind. Teacher training, whether for nursery or secondary school teachers, should be embedded courses which have the capacity to develop both the teacher's personality and perspective on society by linking subject learning with reflective and creative project work. The ultimate responsibility lies with universities and institutes of higher learning to ensure

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the quality of all teachers. Initiatives to improve the content of teacher training will ensure utilisation courses desolate university campuses during summer vacations which conceal an enormous waste of infrastructure and expertise. The quality of education is a reflection of the quality of teachers and major improvements in their training and working conditions will motivate the young to pursue a teaching career and determine how India fares in the pursuit of economic and social development in the years to come.

57. According to the author, what is the weakness of the present examination system?

- (a) Teachers do not take into account the nature of questions asked in the examination.
- (b) Teachers are subjective in their assessment of papers.
- (c) Cut-off standards for admissions to good institutions need to be raised.
- (d) It does not consider unique learning patterns of students.

58. Which of the following factors is responsible for / children's dislike of learning?

- 1. Rigid, systematic logical, organisation of syllabus.
- 2. Teaching methodology which does not focus on text books.
- 3. Examination pattern which rewards rote learning.

Select the correct answer using the codes given below:

- (a) 1 only
- (b) Both 1 and 2
- (c) 3 only
- (d) All 1, 2 and 3



- 59. What is the drawback of teacher training courses?
 - (a) They are held during summer vacations so attendance is low.
 - (b) Content is being constantly changed so teachers cannnot keep up.
 - (c) Their focus is on imparting education only from an examination perspective.
 - (d) They focus on making syllabi interactive rather than focusing on examination patterns.

Passage 2

Alzheimer's disease impairs a person's ability to recall memories, both distant and as recent as a few hours before. Although there is no cure yet for the illness, there may be hope for a cure with a protein called nerve growth factor;. The protein is produced by nerve cells in the same region of the brain where Alzheimer's occurs. Based on this relationship, scientists from the University of Sweden and the University of California at San Diego designed an experiment to test whether doses of nerve growth factors could service the effects of memory loss caused by Alzheimer's. Using a group of rats with impaired memory, the scientists gave half of the rats doses of nerve growth factor while giving the other half a blood protein as a placebo, thus creating a control group. At the end of the fourweek test, the rats given the nerve growth factor performed equally to rats with normal memory abilities. While experiments do not show that nerve growth factor can stop the general process of deterioration caused by Alzheimer's they do show potential as a slowing means to the process

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significantly

- 60. This passage is mainly concerned with:
 - (a) cures for Alzheimer's disease
 - (b) impaired memory of patients
 - (c) the use of rats as experimental subjects
 - (d) nerve growth factor as a cure for Alzheimer's
- 61. According to the passage where is nerve growth factor produced in the body?
 - (a) In the pituitary gland
 - (b) In nerve cells in brain
 - (c) In red blood cells in the circulatory system
 - (d) In nerve cells in the special column
- 62. Which of the following can be inferred from the passage?
 - (a) Alzheimer's disease is deadly
 - (b) Though unsuccessful, the experiments did show some benefits derived from new growth factors
 - (c) The experiment did not show any significant benefits from nerve growth factor
 - (d) More work needs to be done to understand the effects of nerve growth factor
- 63. Examine the following statements:
 - 1. Some train are roads.
 - 2. No road is jungle.
 - 3. All flowers are jungle.

Which one of the following conclusions from can be drawn the above statements?

- (a) Some trains are flowers.
- (b) Some trains are jungles.
- (c) Some flowers are trains.



flower (d) No road is

64. Examine the following statements:

- 1. Some dogs are rats.
- 2. All rats are trees.
- 3. Some trees are not dogs.

Which one of the following conclusions be drawn from the above can statements?

- (a) Some tree are dogs.
- (b) All dogs are trees.
- (c) All rats are dogs.
- (d) No tree is dog

65. Examine the following statements:

- 1. Pictures can tell a story.
- 2. All story books have pictures.
- 3. All story books have words.

Which one of the following conclusions be drawn from the above can statements?

- (a) Pictures can tell a story better than words can.
- (b) The stories in story books are very simple.
- (c) Some storybooks have both words and pictures.
- (d) None of the above

66. What should be the number opposite 3?





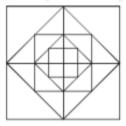


Select the correct answer using the codes given below:

- (a) 1
- (b) 6
- (c) 5
- (d) 4

67. What is the number of squares in figure?

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Select the correct answer using the codes given below:

- (a) 12
- (b) 13
- (c) 15
- (d) 17

Directions for the following 9 (nine)

items: Read the following three passages and answer the items that follow the passages. Your answers to these items should be based on the passages only.

Passage 1

As airlines battle for the skies, it is the traveller who can take wing. It is market compulsion that has driven the three major players in Indian civil aviation to slash their fares by almost half under the newly-introduced apex or advance purchase fare scheme, but for arguably the first time since the privatisation of the industry it is the travelling public that stands to gain the most. The potential spin-offs of this tremendous and go beyond bringing some much needed buoyancy back to a sector that has been performing sluggishly since the effects of 9/11 and the travel advisories issued by various embassies western and high commissions kicked in. The move will certainly change the traditional profile of the air passenger, expand business and travel opportunities for those who could not afford to fly earlier and increase, in



some measure, connectivity throughout Such attempts the country. restructuring fares are, of course, not new. In the West, fierce competition and the unremitting drive to push passenger volumes have led remarkable ticketing innovations. The apex fare scheme, for instance, works for both the consumer and the airline. While it makes travel affordable for one, it helps the other rationalise its operations and ensure that its seats go full. There have been other interesting variations on this theme too, as for instance the idea of the budget airline. It was reported recently that no-frills airlines like Easy Jet and Go-Fly are transforming the aviation industry in the UK by increasing passenger volumes drastically. Well, we have not quite got to that stage as yet, but India-given its size and requirements —would certainly benefit from the expansion of this vital link industry because flying is no longer a luxury, it has become a necessity. There are questions, of course, of the impact this price war will have on the industry and whether predatory pricing practices could end up clipping the wings of one player or the other. In many ways these are early days yet and it will take some time before a clearer picture of the efficacy of such measures emerges. For the moment, however, it is celebration time for the consumer. Of course, as we tighten our seatbelts and take off, we also hope that such costcutting is not at the expense of factors like adequate facilities and, most important, safety.

68. Which of the following is one of the reasons for aviation sector performing sluggishly recently?

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- (a) Stiff competition among the players
- (b) Warning against travel issued by some embassies
- (c) High price of travel
- (d) Lack of adequate facilities
- 69. "... as we tighten our seat-belts and take off ..." What does this signify in the context of the passage?
 - (a) When we start using aviation services.
 - (b) As we stretch our pockets to avail air services.
 - (c) There would be a decline in the facilities.
 - (d) When we board the plane, we have to tighten seatbelt before take-off.
- 70. Which of the following is **not** true in the context of the passage?
 - (a) The reduction in price has been triggered by sluggish performance and competition.
 - (b) In the west, competition had led to evolving new and effective schemes of fare.
 - (c) The customer had so far not enjoyed the major benefits of privatisation ever since, it was done in this sector.
 - (d) More modern type of passengers will avail these travel opportunities.

Passage 2

Ecosystems provide people with a variety of goods and services; food, clean water, clean air, flood control, soil stabilization, pollination, climate regulation, spiritual fulfilment and aesthetic enjoyment, to name just a few. Most of these benefits either are irreplaceable or the technology



replace them necessary to prohibitively expensive. For example, potable fresh water can be provided by desalinating sea-water, but only at great cost. The rapidly expanding human population has greatly modified the Earth's ecosystems to meet their increased requirements of some of the goods and services, particularly food, fresh water, timber, fibre and fuel. These modifications have contributed substantially to human well being and economic development. The benefits have not been equally distributed. Some people have actually been harmed by these changes. Moreover, short-term increases in some ecosystem goods and services have come at the cost of the long-term degradation of others. For example, efforts increase to the production of food and fibre have decreased the ability of some ecosystems to provide clean water, regulate flooding and support biodiversity.

- 71. With reference to the passage, consider the following statements. Expanding human population has an adverse effect on:
 - 1. Spiritual fulfilment
 - 2. Aesthetic enjoyment
 - 3. Potable fresh water
 - 4. Production of food and fibre
 - 5. Biodiversity

Which of the statements given above are correct?

- (a) 1, 2 and 3
- (b) 2, 4 and 5
- (c) 3 and 5
- (d) 1, 2, 3, 4 and 5
- 72. The passage mentions that "some people have actually been harmed by these changes". What does it imply?

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- 1. The rapid expansion population has adversely affected some people:
- 2. Sufficient efforts have not been made to increase the production of food and fibre.
- 3. In the short term some people may be harmed, but in the long term everyone will benefit from modifications in the Earth's ecosystems.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) 1 and 3
- (d) None of the statements given above

Passage 3

A species that exerts an influence out of proportion to its abundance in an ecosystem is called a keystone species. The keystone species may influence both the species richness of communities and the flow of energy and materials through ecosystems. The sea star Pisaster in ochraceus. which lives intertidal ecosystems on the Pacific coast of North America, is also an example of a keystone species. Its preferred prey is the mussel Mytilus californianus. In the absence of sea stars, these mussels crowd out other competitors in a broad belt of the intertidal zone. By consuming mussels, sea star creates bare spaces that are taken over by a variety of other species. A study at the University of Washington demonstrated the influence of Pisaster on species richness by removing sea stars from selected parts of the intertidal zone repeatedly over a period of five years. Two major changes occurred in the areas from which sea stars were



removed. First, the lower edge of the mussel bed extended farther down into the intertidal zone, showing that sea stars are able to eliminate mussels completely where they are covered with water most of the time. Second, and more dramatically, 28 species of animals and algae disappeared from the sea star removal zone. Eventually only Mytilus, the dominant competitor, occupied the entire substratum. Through its effect on competitive relationships, predation by Pisaster largely determines which species live in these rocky intertidal ecosystems.

- 73. What is the crux of the passage?
 - (a) Sea star has a preferred prey.
 - (b) A preferred prey determines the survival of a keystone species.
 - (c) Keystone species ensures species diversity.
 - (d) Sea star is the only keystone species on the Pacific coast of North America.
- 74. With reference to the passage, consider the following statements:
 - 1. Mussels are generally dominant species in intertidal ecosystems.
 - 2. The survival of sea stars is generally determined by the abundance of mussels.

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
- 75. Which of the following is/are implied by the passage?
 - 1. Mussels are always hard competitors for sea stars.

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- 2. Sea stars of the Pacific coast have reached the climax of their evolution.
- 3. Sea stars constitute an important component in the energy flow in intertidal ecosystem.

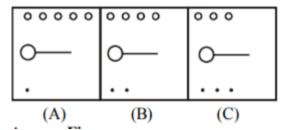
Which of the statements given above is/are correct?

- (a) 1 and 2
- (b) 2 only
- (c) 1 and 3
- (d) 3 only
- 76. Consider the following assumptions:
 - 1. The food chains/food web in an ecosystem are influenced keystone species.
 - 2. The presence of keystone species is a specific characteristic of aquatic ecosystems.
 - 3. If keystone the species is completely removed from an ecosystem, it will lead to the collapse of the ecosystem.

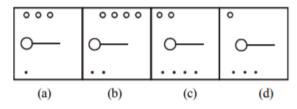
With reference to the passage, which of the above assumptions is/are valid?

- (a) 1 only
- (b) 2 and 3
- (c) 1 and 3
- (d) 1, 2 and 3

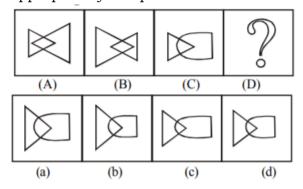
77. Study the problem figures marked (A), (B) and (C) carefully and try to establish the relationship between them. From the answer figures marked a, b, c and d, pick out the figure which most appropriately completes the series







78. Study the problem figures marked (A), (B) and (C) carefully and try to establish the relationship between them. From the answer figures marked a, b, c and d, pick out the figure which most appropriately completes the series



Direction for the following questions: In each of following questions, a statement is given followed by two assumptions numbered 1 and 2. the Consider statement and following assumptions and decide which of the assumptions is implicit.

79. Statement: The state government 'X' is committed to restrict smoke levels on the roads of the metropolis as per the desired parameters.

Assumptions:

- 1. It is possible to determine the smoke levels.
- 2. A committed government can carry forward welfare measures for its people

Select the correct answer using the codes given below:

- (a) Only assumption 1 is implicit.
- (b) Only assumption II is implicit.

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- (c) Either I or II is implicit.
- (d) Both I and II are implicit.
- 80. Statement : Unemployment allowance should be given to all unemployed Indian youth above 18 years of age.

Assumptions:

- 1. There are unemployed youth in India who need monetary support.
- 2. The government has sufficient funds to provide allowance to all unemployed youth.

Select the correct answer using the codes given below:

- (a) Only assumption 1 is implicit.
- (b) Only assumption II is implicit.
- (c) Either I or II is implicit.
- (d) Both I and II are implicit.