



All India Civil Services Coaching Centre

(Under the aegis of Government of Tamil Nadu)

TEST BOOKLET

Test 6 – CSAT Paper II

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. You have to enter your Name on the Test Booklet
3. This Test Book contains 80 items (questions). Each it 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 response ONLY on the separate sheet provided along with the Test Booklet.
5. All items Carry equal marks. There will be **penalty (negative marking)** for wrong answers marked by you in the Answer sheet.
6. There are four alternatives for the answers to every question. For each question for which a wrong answer has been given by the candidate, one third ($\frac{1}{3}$) of the marks assigned to that question will be deducted as penalty.
7. 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 same penalty as above for that question.
8. 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 next 3 questions (Q. nos. 1 to 3): Read the passage given below carefully and select the answers appropriate to the questions.

PASSAGE – 1

What are the alternatives to No First Use? Announcing that India would strike first if it considered it necessary, as Pakistan and the United States do? Some say that our declaration is already meaningless as it covers only a pious hope and does not cover other nuclear-weapon states (NWS). But that aside, a first-strike doctrine is surely destabilizing and does not further the primary purpose of our weapons of deterring blackmail, threat or use of nuclear weapons by an adversary against India. As for other contingencies, there are ways for India to handle them without using nuclear weapons.

1. Which of the following statements is correct, according to the passage?
 - (a) Pakistan has a no first use policy in effect
 - (b) Pakistan does not have a no first policy in effect
 - (c) Pakistan may have a no first use policy in effect
 - (d) Pakistan is a state driven by necessity in nuclear matters
2. Carefully observe the statements given below:
 - (1) India's no first use policy is criticized for its piety
 - (2) India's no first use policy is criticized for its impracticability
 - (3) India's no first use policy is criticized for its non-reciprocity
 - (4) India's no first use policy is criticized for its lack of ambition

Which of the following is the correct pair, according to the passage?

- (a) 1 and 2 only
- (b) 2 and 4 only
- (c) 1 and 3 only
- (d) 2 and 3 only

3. Which of the following is meant by the term destabilizing as it appears in the passage?
 - (a) No first use doctrine is supposed to destabilize the interests of India
 - (b) First use doctrine is supposed to destabilize the enemies
 - (c) No First use doctrine is supposed to stabilize interests of India
 - (d) First use doctrine is supposed to destabilize interests of India

Directions for the next 2 questions (Q. nos. 4 and 5): Read the passage given below carefully and select the answers appropriate to the questions.

PASSAGE–2

Unlike the French Revolution and more akin to the American Revolution, in the Indian case, the constitutional moment was not burdened by inheritance of absolutism. Whatever one might say about British imperial governance, at least by the mid-1940s it bore no resemblance to the absolutism of the late 18th century. To the important extent that revolutions are predetermined by the regimes they overthrow, the inheritance of a responsible and limited government might further vitiate the idea that Indian constitutionalism represented something revolutionary.

4. Which of the following is correct, according to the passage?

- (a) The British imperial government had lost its favour among Indians in the 20th century
- (b) The British imperial government in the 20th century India was not as tyrannical as in the 18th century
- (c) The British imperial government had agreed to a constitution for independent India in the 20th century
- (d) The British imperial government was more despotic in 20th century India than in 18th century India
5. Which of the following can be considered the central motive of the author of the passage?
- (a) To establish that the British Empire was not so unkind to India after all
- (b) To establish that India is more akin to America than France
- (c) To establish that India has a history of avoiding bloody revolutions
- (d) To establish that the foundation of the Indian Republic under the constitution was not a result of a revolution
6. According to the description above, which of the following can be inferred as a 'nudge'?
- (a) Calorie Labels at restaurants
- (b) Graphic warnings for cigarettes
- (c) Labels for energy efficiency on electronic products
- (d) All of the above
7. Which of the following terms best defines a 'nudge' effect?
- (a) Nudges are coercive
- (b) Nudges are obligatory
- (c) Nudges are persuasive
- (d) Nudges are temptations
8. According to the passage, under which of the following categories can 'nudge' fit best?
- (a) Penal
- (b) Moral
- (c) Social
- (d) Constitutional
9. A test paper consists of 10 questions, and each such question has 4 choices. If each question is necessarily attempted, then find the number of ways of answering the test paper.
- (a) 10^4
- (b) 4^{10}
- (c) 4×10
- (d) $4! \times 10!$
10. The students in three classes are in the ratio of 2:3:5. If 40 students are increased in each class, the ratio changes to 4:5:7. Originally, the total number of students were:
- (a) 100
- (b) 180
- (c) 200
- (d) 400
11. Out of 100 families in Mylapore, 45 own radios, 75 have TVs and 25 have VCRs. Only 10 families have all three and each VCR owner also has a TV. If 25 families have radio only, how many have only TV?
- (a) 30
- (b) 35
- (c) 40
- (d) 45

Directions for the next 3 questions (Q. nos. 6 to 8): Read the passage given below carefully and select the answers appropriate to the questions.

PASSAGE-3

Nudges are interventions that fully preserve freedom of choice, but that also steer people's decisions in certain directions. In daily life, a GPS device is an example of a nudge. It respects your freedom; you can ignore its advice if you like. Perhaps you like a more scenic route; perhaps you enjoy seeing familiar landmarks. But the device is there to help you to get your preferred destination.

Many other nudges have similar goals. Signs are nudges. So are text messages, informing customers that a bill is due or that a doctor's appointment is scheduled for the next day; automatic enrolment in pension plans; default settings in computers and cell phones; and payment of automatic payment of credit card bills and mortgages.

Directions for Questions 12 to 14: Answer the questions on the basis of the information given below.

Seven basketball players (A, B, C, D, E, F, and G) are to be honoured at a special luncheon. The players will be seated on the dais in a row. A and G have to leave the luncheon early and so must be seated at the extreme right. B will receive the most valuable player's trophy and so must be in the centre to facilitate presentation. C and D are bitter rivals and therefore must be seated as far apart as possible.

12. Which of the following cannot be seated at either end?
- (a) C
 - (b) D
 - (c) F
 - (d) G
13. Which of the following pairs cannot be seated together?
- (a) B & D
 - (b) C & F
 - (c) D & G
 - (d) E & A
14. Which of the following pairs cannot occupy the seats on either side of B?
- (a) F & D
 - (b) D & E
 - (c) E & G
 - (d) C & F
15. Auto fare in Chennai is Rs.2.40 for the first 1 km, Rs.2.00 per km for the next 4 km, and 1.20 for each additional km thereafter. Find the fare in rupees for k km. ($k > 5$).
- (a) $2.4k + 1.2(2k - 3)$
 - (b) $10.4 + 1.2(k - 5)$
 - (c) $2.4 + 2(k - 3) + 1.2(k - 5)$
 - (d) $10.4 + 1.2(k - 4)$

Directions for the next 3 questions (Q. nos. 16 to 18): Read the passage given below carefully and select the answers appropriate to the questions.

Passage 4

Like Banquo's ghost, the scare of amendments to the Right to Information Act has made a habit of rearing its head every so often. In a recent letter to an RTI activist, the Department of Personnel and Training has confirmed the central government's intention to overhaul the 2005 Act - of course, with the now-familiar caveat that the process would include consultations with the stakeholders. No less than Mrs. Sonia Gandhi argued against the amendments, to little avail, it seems.

So, what chance do the other stakeholders stand? In the time-tested manner of governments and bureaucracies, the department is upfront about some of the amendments while deliberately obfuscating the nature of some others. The door is to be shown to applications deemed to be "frivolous or vexatious." Section 8 of the Act, which prescribes exemptions to the Act, could be amended to "take care of the sensitivity of the office of the Chief Justice of India" as well as to "slightly modify the provision about disclosure of cabinet papers." What this means, shorn of officialise, is this: The office of the CJJ will enjoy full immunity.

Cabinet papers currently being processed are already exempted from scrutiny under Section 8. However, the bar abates once a Cabinet decision has been taken. Undoubtedly, therefore, the "slight" modification hinted at in the letter is aimed at making Cabinet decisions permanently inaccessible and opaque. Another amendment under consideration could disallow single-Commissioner Information Commission benches. If that happens, the disposal of cases could slow down, rendering the Act ineffective.

Then, there is the matter of "frivolous or vexatious" applications. Who is to decide what is vexatious and what is not? Any government department will naturally be vexed by an application that seeks to expose misconduct or corruption. A recent Union Home Ministry communication advised an RTI applicant not to disclose the names of men and women considered for the Padma awards. The anxiety

clearly emanates from the arbitrary manner of deciding the awards.

Under a future version of the Act, all queries relating to the awards could be deemed "vexatious." It is true that the RTI is not always approached in the public interest; for example, there may be a disproportionate use of the Act by insiders, those within officialdom, to pursue their narrow career interests or even personal agendas. But this cannot be an excuse to dilute or degrade an Act that is recognised as being among the best in the world. At a workshop held recently to assess the RTI environment in South Asia, India was held up as model. It would be a great pity if the government was allowed to get away with the retrogressive amendments it has in mind.

16. What is the meaning of Banquo's Ghost according to the passage?
- (a) Political involvement in RTI.
 - (b) Scare of amendments to RTI.
 - (c) Loopholes for bypassing RTI.
 - (d) Constant involvement of bureaucracy in RTI.
17. Why does having a clause, omitting 'frivolous and vexatious' defeat the purpose of RTI?
- (a) 'Frivolous and vexatious' will be subjective to every department, helping them block cases.
 - (b) Frivolous and vexatious cases will increase the work load of the departments.
 - (c) Special hearing will need to be called out to settle the matter of frivolous and vexatious cases.
 - (d) It will help the departments by leaving out cases which are a waste of time.
18. Which is not a proposed amendment to RTI?
- 1. Immunity to the office of Chief Justice of India.
 - 2. Immunity to Cabinet discussion under way.
 - 3. Immunity to Cabinet decisions already taken.
 - 4. Allow single Commissioner Information Commission benches.

Codes:

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

Directions for the next 3 questions (Q. nos. 19 to 23): Read the passage given below carefully and select the answers appropriate to the questions.

Passage 5

What is a language after all? A medium that helps us communicate with others. Indians are used to communicate in more than one language. We often have a mother tongue different from the language we use for work. But not all languages are spelled with letters of the alphabet. Language is sound too.

Once upon a time, when there were no telephones and no electronic media to convey messages across long distances, people used drums and beat out loud rhythms that conveyed messages in sound symbols. Today, that art must be just about obsolete, but drums still speak. The other day when Pandit Hari Mohan Sharma, renowned tabla exponent, performed before a mixed Delhi crowd, he made this aspect of his art amply clear. He quoted the scriptures of classical music that talk of 'naad', or the cosmic sound that is at its basis.

Naad is the fount of bliss, he quoted a verse. This concept applies as much to classical music as to other kinds of music, he explained, pointing out how when homemakers are busy with their chores, they usually listen to songs to help alleviate the burden. Music transports them to the other world making them forget what's in hand. He then went on to give a demonstration of various rhythmic patterns in Teen tala, a cycle of 16 beats in which he showed fractional precision by introducing patterns of odd numbers like five.

19. Indians are used to communicate in more than one language. What language is the author talking of?
- (a) Mother Tongue
 - (b) Musical sound

- (c) Alphabetic expression
- (d) Symbols and signs.

20. "When there were no telephones conveyed messages in sound symbols." Where could this statement prove most true under the circumstances?
- (a) Calling someone with the beat of drum from a high mountain.
 - (b) Inviting someone for lunch or dinner at the other side of the forest.
 - (c) During religious ceremonies in the Temples.
 - (d) Before and during war fares-declaring the beginning and victory - with the beating of drums (nagaras).
21. Extract the term 'fount of bliss' from the following:
- (a) Foundation of bliss
 - (b) Crux of bliss
 - (c) Fountain of bliss
 - (d) Origin of bliss.
22. Radios, transistors TVs and new mobile phones are more popular with menial workers, labour and daily help. Which line from the passage best suits the above statement?
- (a) Indians are used to communicate in more than one language.
 - (b) The scriptures of classical music talk of naad or the cosmic sound that is at its basis.
 - (c) When homemakers are busy with their chores, they usually listen to songs to alleviate the burden.
 - (d) The technology is becoming so popular and wages are getting high that keeping these gadgets has become within the reach of workers.
23. Which of the meaning is the closest 'Obsolete' from the following?
- (a) Extinct and superannuated
 - (b) Current and superseded
 - (c) Archiac and contemporary
 - (d) Primordial and time bound

Directions for the next 3 questions (Q. nos. 24 to 26): Read the passage given below carefully and select the answers appropriate to the questions.

Passage 6

How many really suffer as a result of labour market problems? This is one of the most critical yet contentious social policy questions. In many ways, our social statistics exaggerate the degree of hardship. Unemployment does not have the same dire consequences today as it did in the 1930's when most of the unemployed were primary bread-winners, when income and earnings were usually much closer to the margin of subsistence, and when there were no countervailing social programs for those failing in the labour market. Increasing affluence, the rise of families with more than one wage earner, the growing predominance of secondary earners among the unemployed, and improved social welfare protection have unquestionably mitigated the consequences of joblessness. Earnings and income data also overstate the dimensions of hardship.

Among the millions with hourly earnings at or below the minimum wage level, the overwhelming majority are from multiple-earner, relatively affluent families. Most of those counted by the poverty statistics are elderly or handicapped or have family responsibilities which keep them out of the labour force, so the poverty statistics are by no means an accurate indicator of labour market pathologies.

Yet there are also many ways our social statistics underestimate the degree of labour-market-related hardship. The unemployment counts exclude the millions of fully employed workers whose wages are so low, that their families remain in poverty.

Low wages and repeated or prolonged unemployment frequently interact to undermine the capacity for self-support. Since the number experiencing joblessness at some time during the year is several times the number unemployed in any month, those who suffer as a result of forced idleness can equal or exceed average annual

unemployment, even though only a minority of the jobless in any month really suffer. For every person counted in the monthly unemployment tallies, there is another working part-time because of the inability to find full-time work, or else outside the labour force but wanting a job.

Finally, income transfers in our country have always focused on the elderly, disabled, and dependent, neglecting the needs of the working poor, so that the dramatic expansion of cash and in-kind transfers does not necessarily mean that those failing in the labour market are adequately protected. As a result of such contradictory evidence, it is uncertain whether those suffering seriously as a result of labour market problems number in the hundreds of thousands or the tens of millions, and, hence, whether high levels of joblessness can be tolerated or must be countered by job creation and economic stimulus. There is only one area of agreement in this debate--that the existing poverty, employment, and earnings statistics are inadequate for one of their primary applications, measuring the consequences of labour market problems.

24. Which of the following is the principal topic of the passage?
- (a) What causes labour market pathologies that result in suffering.
 - (b) Which of the currently used statistical procedures are the best for estimating the incidence of hardship that is due to unemployment.
 - (c) Where the areas of agreement are among poverty, employment, and earnings figures.
 - (d) How social statistics give an unclear picture of the degree of hardship caused by low wages and insufficient employment opportunities.
25. The author uses "labour market problems" in lines one to refer to which of the following?
- (a) The overall causes of poverty.
 - (b) Deficiencies in the training of the work force.
 - (c) Trade relationships among producers of goods.

- (d) Shortages of jobs providing adequate income.

26. Which of the following proposals best responds to the issues raised by the author?
- (a) Innovative programs using multiple approaches should be set up to reduce the level of unemployment.
 - (b) A compromise should be found between the positions of those who view joblessness as an evil greater than economic control and those who hold the opposite view.
 - (c) New statistical indices should be developed to measure the degree to which unemployment and inadequately paid employment cause suffering.
 - (d) Consideration should be given to the ways in which statistics can act as partial causes of the phenomena that they purport to measure.

Directions for the next 3 questions (Q. nos. 27 to 31): Read the passage given below carefully and select the answers appropriate to the questions.

Passage – 7

The story of modern pharmaceutical industry in India began in 1959 when, on the recommendation of Justice Ayyangar, a parliamentary committee was formed to formulate a new Patent Act to make pharmaceuticals affordable to Indians. The result of that endeavour was the Indian Patent Act 1970, which by granting process patent protection only, allowed Indian pharma companies to produce and market cheaper versions of the latest drugs by reengineering processes, at a fraction of a cost of the original ones produced in countries offering product patent production. This, coupled with the tremendous re-engineering skills of Indian Chemists laid the foundation of today's pharmaceutical industry. The size of the Indian Pharmaceutical industry was over Rs. 65,000 Crores in 2006-07. The CAGR (compound annual growth rate) from 2002-03 to 2006-07 is 23.4%.

Today India is recognized as one of the lowest cost manufacturers of drugs and pharmaceuticals,

holding 4th position in terms of volume (8%) and 13th in terms of value (1%). Some estimates suggest that by the year 2014, the size of the industry could grow to Rs. 1,00,000 Crores. However, India's joining of WTO in 1995 marked the beginning of the end of process patent regime. In consonance with our obligations under WTO, the government made our IPR laws compliant to TRIPS (Trade Related aspects of Intellectual property Rights) by amending the Indian Patent Act, 1970 in 2005. The 2005 amendment of Indian Patent Act, 1970, marked the end of an era for Indian pharmaceutical industry, an era of process patent only, of reverse engineering and of low cost generic drugs. The amendment has brought in the era of product patents where it will be difficult for our pharma companies to produce cheap generic drugs by reengineering processes.

27. Consider the following statements regarding the above passage:

1. Indian Patent Act was formed on the recommendation of Justice Ayyangar.
2. The Patent Act facilitated the production of drugs at an affordable price.
3. Amendment brought out in 2005 would reverse the process and now no one should expect cheaper varieties by reengineering process.
4. We made our Intellectual Property Rights laws contrary to our obligations under WTO.

Choose the correct option from the codes given below:

- (a) 1, 2 and 3
- (b) 2 and 3
- (c) 2, 3 and 4
- (d) All

28. According to the passage, how the Indian pharmaceutical industry has progressed?

1. It was due to untiring efforts of Indian chemists.
2. Re-engineering process that reduced the cost of original drug.
3. The legislation on patent also facilitated the reduction of the drug price.

Choose the correct option from the codes given below:

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

29. What the author implies by 'India's joining, of WTO in 1995 marked the beginning of the end of process patent regime'?

1. India was under obligation to take some follow up action that were contrary to its interest.
2. Process of re-engineering will be difficult to do.

Choose the correct option from codes given below:

- (a) Only 1
- (b) Only 2
- (c) Both
- (d) None

30. According to the passage, what were the long-term effects of Indian Patent Act, 1970?

1. The size of the Indian pharmaceutical industry grew substantially.
2. The production cost of the drugs fell considerably.
3. India became a leading manufacturer of drugs.

Choose the correct option from the codes given below:

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

31. What is the correct conclusion of the passage?

- (a) Indian Patent Act, 1970 laid the foundation of pharmaceutical industry.
- (b) Amendment of 2005 was contrary to the interest of pharmaceutical industry.
- (c) Both 'a' and 'b'.
- (d) None of the above.

32. A father said to his son, "I was as old as you are at present at the time of your birth". If the father's age is 38 years now, what is the son's age five years back?

- (a) 14 years
- (b) 19 years

- (c) 38 years
(d) 33 years
33. If mangoes are bought at the rate of 30 mangoes for Rs. 750, then how many mangoes must be sold for Rs. 750 so as to make a profit of 20%?
- (a) 20
(b) 24
(c) 25
(d) 36
34. What annual payment will discharge a debt of Rs. 12900 due in 4 years at 5% simple interest?
- (a) Rs. 3300
(b) Rs. 3500
(c) Rs. 3225
(d) Rs. 3000
35. What will come in the place of question mark (?) in the following number series?
3 20 63 144 275 ?
- (a) 468
(b) 528
(c) 324
(d) 432
36. ABC in a right angled triangle, right angled at C and p is the length of the perpendicular from C on AB. If a, b and c are the length of the sides BC, CA and AB respectively, then

(a) $\frac{1}{p^2} = \frac{1}{b^2} - \frac{1}{a^2}$

(b) $\frac{1}{p^2} = \frac{1}{a^2} + \frac{1}{b^2}$

(c) $\frac{1}{p^2} + \frac{1}{a^2} = -\frac{1}{b^2}$

(d) $\frac{1}{p^2} = \frac{1}{a^2} - \frac{1}{b^2}$

Directions (37 & 38): Seven people C, D, E, F, G, H and I are to work in two factories, Factory A and Factory B. The factories need a minimum of three and a maximum of four workers for their new projects. But following rules have to be taken into account before the workers are put on their respective jobs.

Rule 1: C and D cannot work together in the same factory.

Rule 2: H and F have to work for the same factory.

Rule 3: If D and E work for the same factory, then the factory must hire four employees.

Rule 4: G has to work in factory B.

Rule 5: Factory A may hire only four employees if D is one of those employees.

Answer the following questions based on the information given above:

37. Which of the following is a possible placement of the employees?
- (a) Factory A:D, E, C and I Factory B:F, G and H
(b) Factory A:D, H, E and F Factory B:C, G and I
(c) Factory A:C, E and F Factory B:D, G, H and I
(d) Factory A:D, E and I Factory B:C, F, G and H
38. If D works for Factory A, then which of the following statements must be false?
- (a) E works in Factory A
(b) I works in Factory A
(c) H may not work for Factory A
(d) F and I work for the same Factory
39. The numbers are arranged according to a certain rule. Find the number indicated by question mark.
- | | | | | |
|----|---|---|---|---|
| 9 | ▲ | 8 | → | 1 |
| 6 | ▲ | 4 | → | 8 |
| 10 | ▲ | 7 | → | ? |
- (a) 15
(b) 24
(c) 27
(d) 33

40. Examine the information given below.

All the civil servants are loyal.

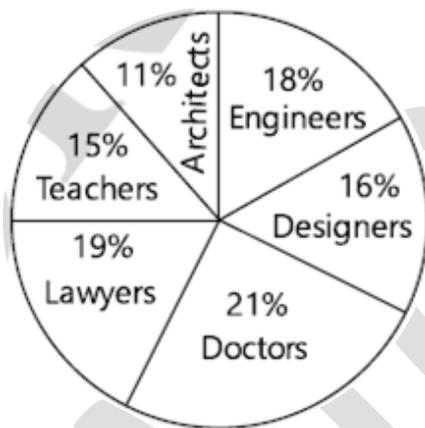
All the loyal persons are patriotic.

Which of the following is not a valid conclusion regarding the above arguments?

- (a) All the civil servants are patriotic
- (b) All the patriotic are civil servants
- (c) Some patriotic are civil servants
- (d) Some loyal persons are civil servants

Directions (41 to 43): The pie-chart depicts a survey conducted on 10500 people to find out various professionals in the town and table depicts the percentage of female among them.

Total No. of Professionals = 10500



Percentage of females professionals	
Doctors	20%
Engineers	60%
Architects	40%
Teachers	80%
Lawyers	40%
Designers	35%

41. What is the ratio of the male engineers and designers to the same-occupation female professionals in the town?

- (a) 41 : 44
- (b) 55 : 53
- (c) 31 : 35
- (d) None of these

42. What is the difference between the total no. of male engineers and total no. of female doctors in the town?

- (a) 210
- (b) 315
- (c) 324
- (d) 630

43. What is the ratio of the number of male architects to the number of male teachers in the town?

- (a) 11 : 5
- (b) 3 : 2
- (c) 5 : 11
- (d) 2 : 3

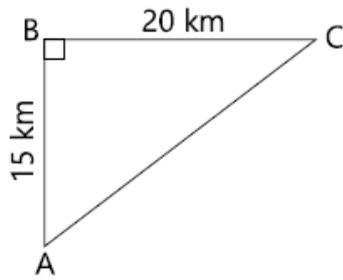
44. At what time between 4 and 5 O'clock, the hour and the minute hands will lie opposite to each other?

- (a) 4-50'-31"
- (b) 4-52'-51"
- (c) 4-53'-23"
- (d) 4-54'-33"

45. From GBPS, a renowned public school of Delhi, 300 students wrote the board examinations, out of which, 45% got distinction. If 40% of the girls got distinction, the number of boys, who wrote the examination, is (here, the number of boys, who got distinction is 35 more than the number of girls who got distinction)

- (a) 120
- (b) 150
- (c) 175
- (d) 125

46. Columbus is travelling along a right triangle. He starts from A, goes to B, then to C. On the way back from C, he decides to traverse a circle touching all the vertices A, B and C. He completes a round and finally reaches A along AC. What is the total distance travelled by Columbus?



- (a) $60 + 25\pi$ Km
- (b) $60 + 50\pi$ km
- (c) $35 + 25\pi$ km
- (d) None of these

47. Three pipes P, Q and R can separately fill a cistern in 4, 8 and 12 hours respectively, Another pipe S can empty the completely filled cistern in 40 hours. Which of the following arrangements will fill the empty cistern in less time than others?

- (a) Q alone is open
- (b) P and S are open
- (c) P, R and S are open
- (d) P, Q and S are open

48. Inside a square plot, a circular garden is developed which exactly fits in the square plot and the diameter of the garden is equal to the side of the square plot which is 28 metres. What is the area of the space left out in the square plot after developing the garden?

- (a) 98 m^2
- (b) 146 m^2
- (c) 84 m^2
- (d) 168 m^2

Direction (49-51): In each of the following questions, two or more statements are to be considered true. Then based on those statements, one has to choose among the given conclusions/options that logically follow from those statements. The answers can be any of these:

- (a) Only Conclusion 1 follows logically.
- (b) Only Conclusion 2 follows logically.
- (c) Both Conclusion 1 and Conclusion 2 follow logically.
- (d) Neither Conclusion 1 Nor Conclusion 2 follows logically.

49. **Statements:**

Some questions are not pleasant.
All unpleasant things need to be avoided.

Conclusions:

- 1. Some questions need to be avoided.
- 2. All questions need to be avoided.

50. **Statements:**

Pets have nets.
Pets eat what they get.

Conclusions:

- 1. All those who have nets eat what they get.
- 2. All those who eat what they get are pets.

51. **Statements:**

Most firemen are physically fit.
All firemen are brave.

Conclusions:

- 1. Most physically fit people are brave.
- 2. Most brave people are physically fit.

Directions (52-54): Read the following passages and answer the items that follow each passage. Your answers to these items should be based on the passages only.

Passage – 8

There are few things in this world that fill me with such wonder as the fact that a man can kill a whale. The scenes in a whaleman's life are varied and very stirring. Sometimes he is floating on the calm ocean, idling about the deck and whistling for a breeze, when all of a sudden the loud cry is heard, "There she blows!" and in a moment the boats are in the water, and he is engaged in all the toils of an exciting chase.

Then comes the battle with the great whale of the deep, with all its risks and dangers. Sometimes he

is unfortunate, the decks are clean, he has nothing to do. At other times he is lucky, "cutting in" and "trying out" engage all his energies and attention. Frequently storms toss him on the angry sea, and show him, if he will but learn the lesson, how helpless a creature he is, and how thoroughly dependent at all times for life, safety, and success, upon the arm of God.

52. Which of the following statement(s) follow(s) from the passage?

1. Storms always make the whaleman realize that he is a helpless creature.
2. The whaleman is fortunate when he has nothing to do.

Select the correct answer using the codes given below:

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

53. Which of the following statement(s) follow(s) from the passage?

1. Whales are seen only in calm seas.
2. The whaleman survives only by chance.

Select the correct answer using the codes given below:

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

54. The author

1. is astonished by the fact that humans can kill whales.
2. thinks that God always protects the whaleman from danger.

Select the correct answer using the codes given below:

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

55. If the number 42573* is completely divisible by 72, then what will be minimum value of the *?

- (a) 4
- (b) 5

(c) 6

(d) 7

Directions (56 to 58): Read the information given below and answer the questions based on them.

1. There is a group of five persons A, B, C, D and E.
2. One of them is a Horticulturist, one is Physicist, one is Journalist one is an Industrialist and one is an Advocate.
3. Three of them A, C and the Advocate prefer tea to coffee and two of them — B and the Journalist prefer coffee to tea.
4. The Industrialist, D and A are friends of one another but two of them prefer coffee to tea.
5. The Horticulturist is C's brother.

56. Who is an Industrialist?

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

57. Which of the following groups include a person who likes tea but is not an Advocate?

- (a) ACE
- (b) BCE
- (c) DE
- (d) None of these

58. Who is the person who likes coffee but is not the Journalist?

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

Directions (59 to 63): Read the following information to answer the given questions.

The Director of the institute has announced that six guest lectures on different areas like Leadership, Decision Making, Quality Circle, Motivation, Assessment Centre and Group Discussion are to be organised only one on each day from Monday to Sunday.

1. Motivation should be organised immediately after Assessment Centre.

2. Quality Circle should be organised on Wednesday and should not be followed by Group Discussion.
3. Decision making should be organised on Friday and there should be a gap of two days between Leadership and Group Discussion.
4. One day there will be no lecture (Saturday is not that day), just before that day Group Discussion will be organised.

59. Which of the following pairs of lectures were organised on first and last day?

- (a) Quality Circle and Motivation
- (b) Group Discussion and Quality Circle
- (c) Group Discussion and Decision Making
- (d) None of these

60. How many lectures are organised between Motivation and Quality Circle?

- (a) One
- (b) Two
- (c) Three
- (d) Four

61. Which day will the lecture on Leadership be organised?

- (a) Tuesday
- (b) Wednesday
- (c) Friday
- (d) None of these

62. On which day, there is no lecture?

- (a) Sunday
- (b) Monday
- (c) Tuesday
- (d) Wednesday

63. Which of the following information is not required for the above lecture arrangements?

- (a) 1 only
- (b) 2 only
- (c) 3 and 4 only
- (d) All are required

64. A cycle wheel makes 1000 revolutions in moving 440 m. What is the diameter of the wheel?

- (a) 7 cm
- (b) 14 cm
- (c) 28 cm

(d) 21 cm

65. Consider the following statements:

- (1) If a two-digit number is added to a number obtained by reversing the digits of the given number, then the sum is always divisible by 11.
- (2) If the digits of a two-digit number are reversed, then the difference of the reversed number and the original number is always divisible by 9.

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

Directions for the next 3 questions (Q. nos. 66 to 68): Read the passage given below carefully and select the answers appropriate to the questions.

PASSAGE – 9

Our present world is simultaneously moving toward the opposing dystopias of hyper centralization and endless fragmentation. China, for instance, is building a massive dictatorship in which the government collects data on the daily transactions of every one of its citizens and uses big data techniques and a social credit system to control its population. On the other hand, different parts of the world see the breakdown of centralized institutions, the emergence of failed states, polarization and a growing lack of consensus over common ends. Social media and the internet have enabled the emergence of self-contained communities, walled off not by physical barriers but by belief in shared identities.

66. Which of the following is correct, according to the passage?

- (a) Hyper centralization is causing endless fragmentation
- (b) Endless fragmentation happened much before hyper centralization
- (c) Hyper centralization and endless fragmentation both are caused by each other

- (d) None of the above
67. Which of the following is correct, according to the passage?
- (a) To create a massive dictatorship, it is necessary to control the population through big data techniques
 - (b) Social media is responsible for the endless fragmentation phenomenon
 - (c) Belief in shared identities cannot be created except by social media
 - (d) Communism is on the rise in the present world
68. Which of the following is cited as a reason for endless fragmentation in the present world?
- (a) Poverty
 - (b) Disagreement
 - (c) War
 - (d) Social Media

Directions for the next 3 questions (Q. nos. 69 to 71): Read the passage given below carefully and select the answers appropriate to the questions.

PASSAGE-10

We tend to be patronizing about the poor in a very specific sense, which is that we tend to think, "Why don't they take more responsibility for their lives?" And what we are forgetting is that the richer you are, the less responsibility you need to take for your own life because everything is taken care for you. And the poorer you are, the more you have to be responsible for everything about your life. Stop berating people for not being responsible and start to think of ways instead of providing the poor with the luxury that we all have, which is that a lot of decisions are taken for us. Even if we do nothing, we are on the right track. For most of the poor, if they do nothing, they are on the wrong track.

69. Which of the following statements are valid, according to the passage?
- (a) The author suggests that the rich despise the poor for not taking responsibilities for their lives

- (b) The author suggests that the rich underestimate the problematic conditions in which the poor live
- (c) The author suggests that the rich are spoiled and pampered
- (d) The author suggests that the rich do not like sharing their organisational structures with the poor

70. Which of the following can be inferred, most appropriately, as the main idea of the passage?

- (a) The poor must be provided with job opportunities
- (b) The poor must be provided wealth equity
- (c) The poor must be inducted into the formal economy
- (d) The poor must be provided systemic navigability

71. Which of the following is termed a luxury in the passage?

- (a) Money
- (b) Organised setups
- (c) Responsibility
- (d) Community

72. A train 130 m long passes a bridge in 21 seconds moving with a speed of 90 km/hr. Find the length of the bridge?

- (a) 400 m
- (b) 395 m
- (c) 405 m
- (d) 390 m

73. A sum borrowed under compound interest doubles itself in 10 years. When will it become four-fold of itself at the same rate of interest?

- (a) 15 years
- (b) 20 years
- (c) 24 years
- (d) 40 years

74. 21 mango trees, 42 apple trees and 56 orange trees have to be planted in rows such that each row contains the same number of trees of one variety only. What is the minimum number of rows?

- (a) 7

- (b) 19
- (c) 17
- (d) 21

- (d) For Judicial Services that are under the Supreme Court of India exclusively

Directions for the next 2 questions (Q. nos. 75 and 76): Read the passage given below carefully and select the answers appropriate to the questions.

Directions for the next 2 questions (Q. nos. 77 and 78): Read the passage given below carefully and select the answers appropriate to the questions.

PASSAGE-11

PASSAGE – 12

The Constitution does not explicitly mention or require 'separation of powers'. This is particularly true of the separation between the executive and legislature, given that it is a parliamentary form of government. On the contrary, it has chapters on the 'Legislative powers of the President/Governor', which confer the power to promulgate ordinances on the executive. It also allows the executive to exercise, to a limited extent, judicial powers, insofar as judicial services are a part of the public service of the State; the separation of subordinate judiciary is a directive principle and hence non-justifiable. However, the separation of powers between the judiciary and executive has been held by the Supreme Court to be a part of the 'basic structure' of the Constitution.

Political Correctness refers to things you can't say in public without fearing withering moral opprobrium. Every society has some ideas that run counter to its foundational ideas of legitimacy and therefore are off-limits in public discourse. In a liberal democracy, one is free to say and believe in private that Hitler was right to kill the Jews, or that slavery was a benevolent institution. Under the U.S First Amendment, one's right to say these things is also constitutionally protected. But considerable moral opprobrium would be rightly brought to bear against any political figure espousing such views. In some European countries, similar statements have been criminalized for many years.

75. Which of the following is correct according to the passage?
- (a) Constitution has inferred provisions for Separation of Powers
 - (b) Constitution has extra legal provisions for the Separation of Powers
 - (c) Constitution has implicit provisions for Separation of Powers
 - (d) Constitution has subordinate provisions for Separation of Powers
76. For which of the following cases can judicial powers be exercised by the executive, according to the passage?
- (a) Only for those Judicial services which are a part of the Public Service of the State
 - (b) For Judicial Services that are present as the part of Public Service of the State and otherwise
 - (c) For Judicial Services that are essentially governed by a law passed by the State

77. Which of the following is correct about free speech, according to the passage?
- (a) Europe is more absolutist than the U.S.
 - (b) Europe is more free speech absolutist than the U.S.
 - (c) The U.S. is more free speech absolutist than Europe
 - (d) The U.S. is more tolerant than Europe.
78. Which of the following is the most appropriate meaning of the term 'opprobrium', in the context laid out by the passage?
- (a) A legal penalty
 - (b) A felicitation
 - (c) A harsh criticism
 - (d) An act of mob outrage

Directions for the next 2 questions (Q. nos 79 and 80): Read the passage given below carefully and select the answers appropriate to the questions.

PASSAGE– 13

The war-mongering flood of all this propaganda in the United States is admitted even by the American press. Such provocative and slanderous aims clearly inspired today's speech by the United States Representative, consisting only of impudent slander against the Soviet Union, to answer which would be beneath our dignity. The heroic epic of Stalingrad is impervious to libel. The Soviet people in the battle of Stalingrad saved the world from fascist plague and that great victory which decided the fate of the world is remembered with recognition and gratitude by all humanity. Only men dead to all shame could try to cast the shining memory of the heroes of that battle.

79. Which of the following is a valid assumption, according to the passage?
- (a) American Press is not neutral
 - (b) American Press is the place where propaganda is manufactured
 - (c) American Press and United States Representative both have equal dislike for the Soviet Union
 - (d) American Press is inclined to serve American interests before the interest of USSR
80. Which of the following expressions best captures the state of the mind of the author of the passage?
- (a) Satirical
 - (b) Challenging
 - (c) Outraged
 - (d) Bitterly Disappointed