

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

TEST BOOKLET NO-25029

MAIN PAPER

Time Allowed: 02:00 hrs

Maximum Marks: 200

COMPREHENSION, REASONING, APTITUDE & MENTAL ABILITY

INSTRUCTIONS TO CANDIDATES

Read the instructions carefully before answering the questions: -

1. This Test Booklet consists of 40 (forty) pages and has 100 (one hundred) items (questions).
2. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
3. Please note that it is the candidate's responsibility to fill in the Roll Number and other required details carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the OMR Answer Sheet liable for rejection.
4. Do not write anything else on the OMR Answer Sheet except the required information. Before you proceed to mark in the OMR Answer Sheet, please ensure that you have filled in the required particulars as per given instructions.
5. Use **only Black Ball Point Pen** to fill the OMR Answer Sheet.
6. All questions are Multiple Choice-based .The answers to these questions have to be marked in the OMR Answer Sheet provided to you.
7. Persons belonging to Persons with Benchmark Disability category (only blind and low vision candidates who are availing the facility of scribe to write answers for them) ARE NOT required to attempt questions related to data interpretation (charts, graphs, tables, data sufficiency etc.) The questions numbers of such questions are highlighted in the paper (i.e. if Question No. 01 is a highlighted question, it would look like **01**). Marks of these questions will be distributed equally amongst the remaining questions for such candidates.
8. Each item (question) comprises of 04 (four) responses (answers). You are required to select the response which you want to mark on the OMR 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.
9. After you have completed filling in all your responses on the OMR Answer Sheet and the examination has concluded, you should hand over to the Invigilator **only the OMR Answer Sheet** . You are permitted to take the Test Booklet with you.
10. **Penalty for wrong answers in Multiple Choice-based Questions:**
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE.
 - (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 the question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to the 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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MULTIPLE CHOICE BASED QUESTIONS

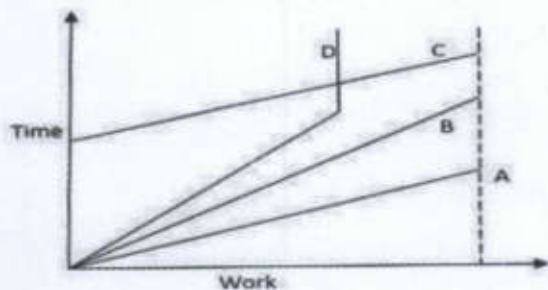
Instructions for Questions 1 to 100:

- Choose the correct answer for the following questions
- Each question carries 2 marks

(100 x 2 = 200 marks)

1. P is shorter than Q but taller than T. R is the tallest and S is shorter than P but not the shortest. Who is second last in the descending order of height?
A. P
B. Q
C. S
D. T
2. In a row of students Ganesh is 7th from one extreme and 11th from the other. Find the total number of students in the row.
A. 17
B. 18
C. 19
D. 20
3. If 50% of $(p - q) = 30\%$ of $(p + q)$, then $p : q$ is equal to ?
A. 5 : 3
B. 4 : 1
C. 3 : 5
D. 1 : 4
4. The product of two numbers is 9375 and the quotient, when the larger one is divided by the smaller, is 15. The sum of numbers is ?
A. 395
B. 380
C. 400
D. 425

1. Consider the figure given below showing the performance of four workers A, B, C and D and answer the question that follows:



Which of the statements given below is not correct?

- A. A is more efficient than B.
 - B. D stopped working after some time.
 - C. A, B and C did the same work.
 - D. None of the above.
6. The organisers of an exhibition decided to keep the entry fee for the exhibition at Rs. 100 on the first day. However, due to the lukewarm response of the public, they later decided to reduce the price by 25% on the second day, resulting in a 20% increase in revenue on that day as compared to the first day. What would have been the percentage increase/decrease in the number of visitors?
- A. 20%
 - B. 40%
 - C. 60%
 - D. 80%
7. In a physical test camp, a kilometre-long race was conducted. In that race, candidate A beat candidate B by 100 metres and candidate B beat candidate C by 100 metres. By how many metres did candidate A beat candidate C?
- A. 200 metres
 - B. 180 metres
 - C. 190 metres
 - D. 210 metres

8. In a cricket Test match, each batsman may have zero, one or two batting innings to play depending on whether he gets to bat in his team's first or second innings. An international Test cricketer has scored 3900 runs in 65 innings. His first innings average is 80 and his second innings average is 30. How many times has that cricketer batted in the first and second innings respectively?
- A. 50, 15
 - B. 39, 26
 - C. 45, 20
 - D. None of the above.

Instructions for the following 3 (three) questions:

Read the following two passages and answer the questions that follow. Your answers to these questions should be based on this passage.

Paragraph-1

As with many agricultural products, the process of growing coffee is complex. It is often portrayed as a trade-off. Increased use of fertilizer and pesticides leads to higher crop yields, but comes at a cost to wildlife and human health. Using fewer agrochemicals is more environmentally friendly, but farmers must face the risk of crop loss from pests and diseases. A recent paper led by researcher Juan Nicolas Hernandez-Aguilera describes how this trade-off may not be as simple as previously thought, and that farmers could be more financially prosperous if they used shade growing systems for a portion of their production. Coffee is typically grown in fields with conspecific trees in the open sun. Hernandez-Aguilera and his co-authors at Cornell University tested the merits of an alternative method of growing coffee under shade trees. Shade-grown production systems mimic forest structure and provide superior habitat for birds compared to open-sun systems. Both birds and shade trees provide ecosystem services to coffee plantations, and these services can save farmers additional expenses by replacing fertilizers and pesticides. More birds mean more prey for pests that can harm a farmer's coffee crop. - Estimates suggest that just one bird can help protect 23-65 pounds of coffee per hectare per year from pests. Additionally, shade trees in shade-grown coffee plantations, usually the *Inga edulis* species, fix nitrogen in the soil, providing additional nutrients to the coffee trees. Hernandez-Aguilera mentions that other services provided by this system, such as reduced temperatures under shade trees, are an important adaptation strategy to climate change. Hernández-Aguilera points out that shade-grown coffee beans are often considered higher-quality in the market, and higher prices may compensate farmers for the relative yield losses from shade-grown systems. "Our estimates can guide the design of market-based mechanisms aimed at promoting sustainable practices in coffee," Hernández-Aguilera explains. "The effective implementation of these tools depends on better incentives and on coffee consumers' knowledge of the interconnectedness between shade-grown coffee, environmental protection, and product quality," he adds.

9. According to the passage, which of the following statements regarding growing of coffee is/are correct?
1. Shade grown production systems are more profitable for farmers because of lower production cost and higher yield.
 2. Coffee plants help recharge soil nutrients by fixing nitrogen in the soil.
 3. Awareness will need to be promoted regarding the impacts of coffee production practices on yield quality for shade grown production systems.

Select the correct answer using the code given below.

- A. 1 and 2 only
 - B. 1 and 3 only
 - C. Only 3
 - D. 1, 2 and 3
10. What is the most logical and rational conclusion that can be drawn from the above passage?
- A. Ecoservices provided by nature can provide a better alternative to the use of fertilisers and will help in conserving ecological diversity.
 - B. Despite lower yields, farmers will always adopt shade grown production system because it is an environmentally sustainable practice.
 - C. Even with suitable support measures, shade grown production systems cannot be adopted for other agricultural crops.
 - D. Preserving wildlife and promoting human health is more important than protecting the livelihoods of coffee producing farmers

Paragraph-2

History teaches that one does not learn from history (the past). This may sound like a boring maxim, but societies are highly selective in their intake of the past, capable of creating memory, and prone to using and abusing their history. Popular memories need to be not only explicit, but embedded in language and traditions. Perhaps, the more precise lesson is that societies should consider carefully the parties claiming a historical mandate. History confused with the tyranny of habit can be an instrument of bloodshed – as the emerging states of the former Yugoslavia learned. And hiding behind history to escape the present can also be an instrument of disaster, as the Brexit campaign's evocation of the English Golden Age has proven.

11. Which of the following is/are the correct conclusions that can be drawn from the passage?
1. Societies that distort or manipulate their past face problems.
 2. Societies do not have the ability to objectively analyse history and learn from it
 3. Societies selectively choose lessons from their past that suit their "self-interests."

Select the correct answer using the code given below.

- A. 1 and 3 only
- B. Only 3
- C. 1, 2 and 3
- D. Only 1

Directions for the following 3 (three) questions:

Consider the information given below and answer the questions that follow.

Shyamsundar is a wholesale supplier of five mango varieties namely Badami, Dussehri, Neelam, Kesar and Alphonso. Alphonso is of better quality than Neelam and is in higher demand than Neelam which has a higher supply than Alphonso. Badami is of higher supply than Neelam and is of better quality than Dussehri. Dussehri is in higher demand than Alphonso but has the second lowest supply. Kesari is of worst quality and is also in lowest demand but has the highest supply. Neelam is in higher demand than Badami and is of better quality than Badami.

12. Which variety of mango is of the best quality?

- A. Alphonso
- B. Dussehri
- C. Badami
- D. Kesari

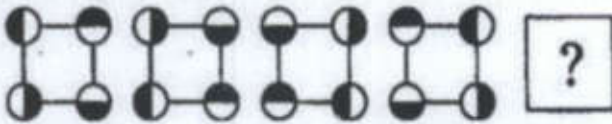
13. Which variety of mango has minimum supply?

- A. Kesar
- B. Dussehri
- C. Alphonso
- D. Badami

14. Which variety of mango has the third highest demand?

- A. Dussehri
- B. Neelam
- C. Badami
- D. Kesari

15. Consider the following sequence of figures which follows a pattern.

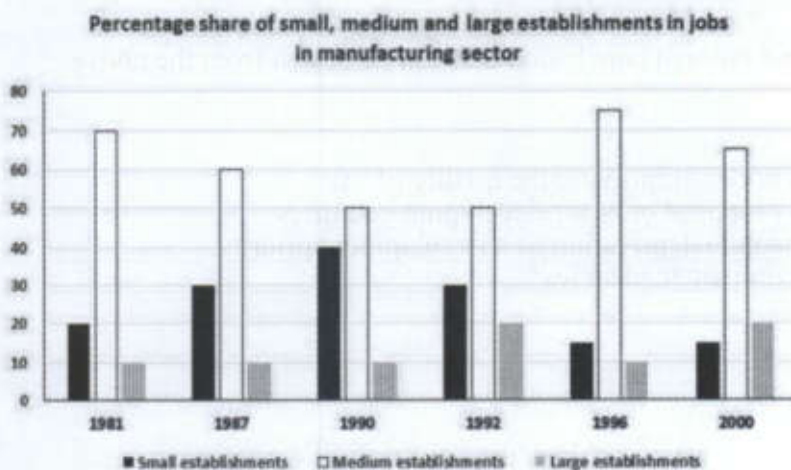


Which of the following figures can be the missing figure in the above sequence

- (a)
- (b)
- (c)
- (d)

Directions for the following 2 (two) questions:

The following graph shows the percentage share of small, medium and large establishments in the total employment provided by the manufacturing sector. Study the graph carefully and answer the questions that follow.



16. In the year 1981 and 1987, the manufacturing sector employed 50 million and 60 million people respectively. What was the difference in the number of employees employed in small establishments in the year 1981 and 1987?
- A. 8 million
 - B. 12 million
 - C. 6 million
 - D. 4 million
17. There were a total of 100,000 workers and 750 medium establishments in the manufacturing sector in the year 1996. What was the average number of persons employed per medium establishment unit in the said year?
- A. 100
 - B. 75
 - C. 125
 - D. 1000

Instructions for the following 3 (three) questions:

Read the following three passages and answer the questions that follow. Your answers to these questions should be based on this passage.

Paragraph-1

The basic needs (BN) approach to development prioritises meeting the basic needs of all people. The actual content of basic needs has been defined differently: they always include the fulfillment of some standard of nutrition (food and water), and the universal provision of health and education services. They sometimes also include other material needs such as shelter and clothing, and non-material needs such as employment, participation and political freedom. The idea of making the fulfillment of some basic human needs a development priority is neither a recent nor a sophisticated one.

18. Which of the following is the most logical and rational conclusion that can be drawn from the above passage?
- A. The emphasis of the basic needs approach is not on improving the quality of life.
 - B. The idea of a basic needs approach has been proposed only for developing countries.
 - C. The basic needs approach aims to remove absolute deprivation as a development priority.
 - D. The basic needs approach will promote materialistic tendencies

Paragraph-2

Our society is constantly changing our minds to buy different things, because we live in a society that will only function if people keep spending. But if everyone thought about what they really want in life, I think this cycle can stop. Society wants people to strive to be rich, when in reality, the wealth disparity is much greater than people realize. So, people are striving to live in a place that is almost impossible. While I am not saying that having nice things is bad, it doesn't take our priorities into account. Our achievements are measured by what we have, but why? If all this energy was put into making the world a better world, I can't even imagine how peaceful a world we would live in.

19. What is the decisive message conveyed by the above passage?
- A. People should not even think about becoming rich and prosperous because it is a never ending desire.
 - B. Society as well as individuals need to re-evaluate what are the essential needs of life.
 - C. People do not need to be explained the gravity of the inequality of wealth that currently prevails in our society, because it is naturally universal.
 - D. Creating a better world is impossible because of the ideological nature of society.

Paragraph-3

Ethical questions are central to the study of international relations, as these are areas of study related to war and peace, trade and production, and law and rights. Yet, a long-standing conventional wisdom suggests that ethics is marginal in international relations. This conventional wisdom has two sources. After World War II, when the discipline of international relations was taking a new shape in the United Kingdom and the United States, a number of prominent scholars with a realist perspective on questions of ethics came to dominate the field. These figures criticized the inappropriate moralism of earlier scholars who placed their faith in the power of law and institutions to improve international relations. Shortly thereafter, the discipline of international relations began to focus on developing a value-free social scientific approach that rejected ethical questions as part of the study of international relations.

20. Which of the following is/are the most logical and rational conclusion(s) that can be drawn from the above passage?
- 1. The realist paradigm as well as the scientific approach are sceptical about morality in international relations.
 - 2. The field of international relations emerged after the Second World War.

Select the correct answer using the code given below.

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 nor 2

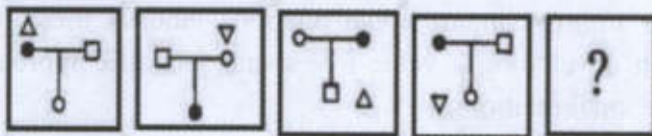
21. Consider the following pattern of numbers:

16	18	22	26
8	9	10	13
20	16	10	11
28	25	22	?

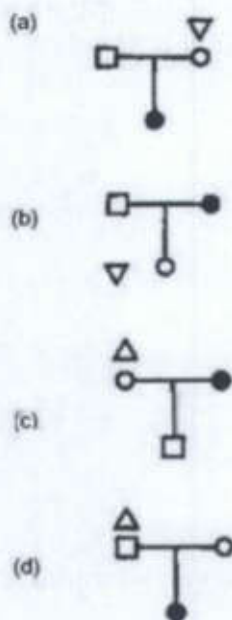
What is the missing number in the above pattern?

- A. 19
- B. 24
- C. 26
- D. 28

22. Consider the figures given below:



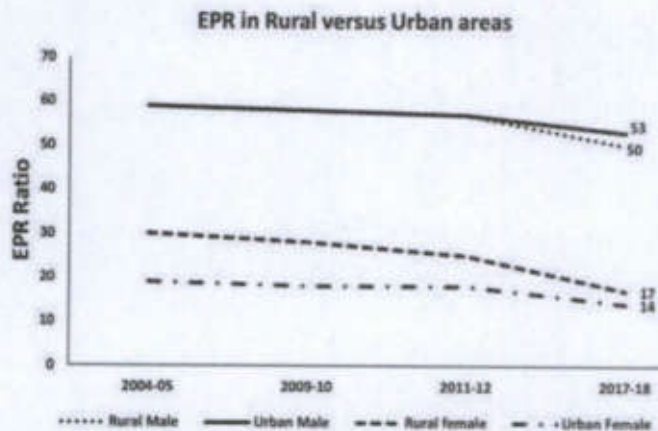
What could be the missing figure in the above sequence?



23. A rectangle has a fixed area of 16 square meters. The length of the sides of a rectangle is always a natural number. What is the maximum and minimum possible perimeter of a rectangle?
- A. 34 m and 16 m
 B. 32 m and 16 m.
 C. 28 m and 14 m.
 D. 36 m and 18 m.
24. If $\text{Palmyra} < \text{Date palm}$; $\text{Date palm} < \text{Queen palm}$ and $\text{Queen palm} > \text{Carota}$, then which of the following is always true?
- A. $\text{Palmyra} > \text{Carota}$
 B. $\text{Palmyra} < \text{Queen Palm}$
 C. $\text{Date palm} = \text{Carota}$
 D. $\text{Date palm} > \text{Carota}$

25.

Consider the graph given below showing the comparison of Employment-Population Ratio (EPR) in rural vs. urban areas. Study the graph carefully and answer the questions that follow.



What is/are the most logical statement(s) that can be concluded after going through the graph carefully?

1. In the year 2017-18, compared to 2011-12, more rural men lost their jobs than urban men.
2. In the year 2017-18, as compared to 2011-12, the employment-to-population ratio (EPR) of rural women recorded a sharper absolute decline than the employment-to-population ratio (EPR) of urban women.

Select the correct answer using the code given above.

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 nor 2

26. If the circum radius of an equilateral triangle be 10 cm, then the measure of its in-radius is?

- A. 5 cm
- B. 10 cm
- C. 20 cm
- D. 15 cm

27. If 'GIVE' is coded as 5137 and 'BAT' is coded as 924, how is 'GATE' coded?

- A. 5427
- B. 5724
- C. 5247
- D. 2547

Directions for the following 3 (three) questions:

Read the following four passages and answer the questions that follow. Your answers to these questions should be based on this passage only.

Paragraph-1

As a highly labour-intensive sector, tourism has the potential to generate a large number of high-quality jobs. In 2016, it employed 25 million direct and over 14 million indirect jobs. Direct employment in the sector is 5.8 per cent of India's total employment. Both direct and indirect employment account for 9.3 per cent of total employment. The sector has many forward and backward linkages, including sectors such as agriculture, retail, transport and financial services, which have the potential to generate further jobs. Recognizing the potential of the sector to generate income and employment, the Government has taken several measures to strengthen infrastructure and facilitate tourism. Recently, India has introduced tourist visa on arrival for tourists from 150 countries, backed by electronic travel authorization (ETA) (renamed as "e-Tourist Visa"). The Ministry of Tourism has launched a 24×7 toll-free tourist helpline in 12 international languages. The Government has initiated several schemes to develop tourist circuits; develop our islands as tourist destinations; build large-scale convention centres in various cities; improve connectivity and develop niches like medical tourism and pilgrimage-based tourism.

28. What is the basic message of this passage?

- A. The share of employment in India's tourism industry is relatively low compared to other sectors because it lacks adequate infrastructure.
- B. India needs to take multi-pronged measures to promote its tourism industry which can help generate employment in various sectors.
- C. Increasing tourism will not help India earn more foreign exchange.
- D. Apart from tourism, other sectors such as agriculture, retail, transport and financial services have very little potential to generate employment independently.

Paragraph-2

During the 'First' Cold War, India successfully balanced its interests between the then two superpowers, the US and the Soviet Union. Although India was inclined towards the Soviet Union in international bodies because it supported issues related to Indian interests such as decolonisation and opposition to racism, it was also a major recipient of Western aid and technology, especially in achieving food self-sufficiency through the Green Revolution. In this new Cold War between the US and China, the choice for India is fairly straightforward, as it has faced a resilient China since China's occupation of Tibet in 1956 and the arrival of the Dalai Lama in India in 1959. Yet, other constraints exist as China is now a land neighbour which has shown no desire to demarcate the long militarised border and which has perpetuated the possibility of local conflict.

29. What is the basic message of this passage?

- A. In this era of the new Cold War, America and China are the superpowers of the world.
- B. India's interests lie in maintaining close ties with the US while keeping a close watch on China.
- C. India must unilaterally address all Chinese concerns – including regarding the Dalai Lama and land boundaries.
- D. India faced problems in the international arena because India historically supported the Soviet Union against the United States.

Paragraph-3

The things we own, the things that capture special moments from our past; it all depends on your relationship with memory, how much you aspire to exist in the past, or how you use the past to inspire your present and future. I know people with vivid memories who have no need for the inspiration or evidence provided by objects. I also know people with greatly diminished memories, but who will not ignore something as trivial as dust. As for me, I know that I have a new drawer to store new memories and in another drawer there is a lot of magical pushing and shoving and adjustment going on as the new things coming in jostle with the things that have occupied that space for years.

30. According to the passage, which of the following statements about the things we remember is/are correct?

- 1. These are essential for people suffering from memory loss to recall past events.
- 2. They lie dormant in a drawer for many years and serve no useful purpose
- 3. These are most likely to be kept by people who like to reminisce about their past. Select the correct answer using the code given below.

- A. 2 and 3 only
- B. Only 3
- C. 1 and 2 only
- D. 1, 2 and 3

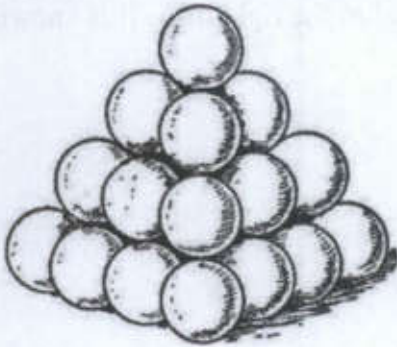
31. If HEROISM is coded as SVILRHN, then how will ALP be coded as?

- A. LTV
- B. ZSX
- C. SGD
- D. ZOK

Directions for the following 2 (two) questions:

Consider the information given below and answer the questions that follow.

A particular number of uniform spherical balls are arranged in the form of a square matrix, each side having n number of balls. Now similar balls are placed over the cavity formed by the four balls of the bottom layer to form the second layer, and so on to form the third and other layers. This process is continued till only one ball is placed in the topmost layer. The figure shown below represents such a situation.



32. How many balls are there in the second layer?

- A. $(n-1) \times (n-1)$
- B. $(n+1) \times (n+1)$
- C. $n \times n$
- D. n

33. How many layers are made including only one ball in the topmost layer?

- A. $n + 1$
- B. $n - 1$
- C. n
- D. $(n-1)$

34. A person cuts an eraser into the shape of a cube with the numbers 1-6 marked on all the faces. If 2, 4 and 6 are adjacent to 1, then which of the following is necessarily true?

- A. 2 is opposite to 6
- B. 1 is adjacent to 3
- C. 3 is adjacent to 5
- D. 3 is opposite to 5

Directions for the following 3 (three) questions:

Consider the information given below and answer the questions that follow.

A, B, C, D, E, F, G and H are eight friends sitting around a circular table and facing outwards. No two females are sitting next to each other. E is sitting second to the right of her husband and third to the left of C. F is sitting second to the right of his wife H, who is not an immediate neighbour of E's husband. D is a male and he is not the husband of E. G is not an immediate neighbour of E. B is sitting second to the right of A. It is known that there are three females and five males in the group.

35. Who is the husband of E?

- A. B
- B. G
- C. C
- D. A

36. Who sits third to the left of E's husband?

- A. C
- B. B
- C. A
- D. D

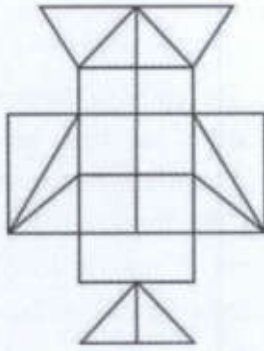
37. Who is sitting opposite to A?

- A. C
- B. F
- C. D
- D. H

38. An ant tries to climb in a straight line up a slippery wall perpendicular to the floor. After climbing 50 cm above the floor, it slips 10 cm. This process of going up and sliding down occurred thrice, as in each subsequent attempt the ant was able to cover twice the distance as compared to the previous attempt, although it slipped thrice the distance it slid in the previous attempt. What will be the final distance covered by the ant upwards from the floor?

- A. 350 cm
- B. 200 cm
- C. 10 cm.
- D. None of these

39. Consider the following figure:



Find the minimum number of straight lines required to construct the given figure:

- A. 28
B. 26
C. 23
D. 24
40. X was born on Monday, 8 June, 1996. On his first birthday and every birthday thereafter, his parents took him to the temple. But if his birthday fell on Saturday or Wednesday, this pattern was not followed. How many times did he go to the temple till the age of 8 years?
- A. 8
B. 6
C. 7
D. 5
41. If the value of a lies between -6 and 3 and the value of b lies between -3 and 3 , then the value of $(a^2 - b^2)$ should be which of the following primes?
- A. -36 and 9
B. -36 and -9
C. 0 and 9
D. 0 and 36

Directions for the following 2 (two) questions:

Read the following passage and answer the questions that follow. Your answers to these questions should be based on this passage.

Paragraph

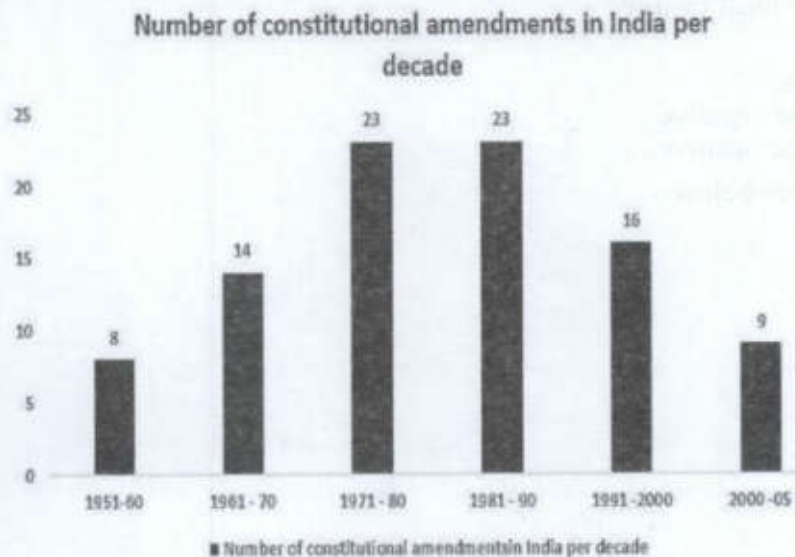
In the last decade, many villages in Bundelkhand have suffered massive depopulation. Recently in the news due to farmer protests, the region, which covers parts of Uttar Pradesh and Madhya Pradesh, has been adversely affected by climate change. At one time, it used to receive 800-900 mm of annual rainfall, but in the last seven years, the rainfall has halved and the average duration of rainy days during the monsoon has come down to 24 days. Due to inadequate rainfall, crop failures have become common. There is hardly any greenery left in many villages, making it difficult for farmers to even rear cattle. Adaptation is a difficult task due to heavy investments in borewells, tractors and threshers as well as farmers growing different and mixed crops in different seasons. While the national media was surprised by the hailstorm in Noida, this type of weather has been causing crop failure in recent years. In 2015, the entire tur crop failed. There is a growing number of farmers abandoning their land and moving to nearby cities to work as labourers. India is fortunate to have monsoons, but it is also uniquely vulnerable to rising temperatures. India ranked 14th in the 2019 Global Climate Risk Index. Over 120 million hectares of the country's land is affected by some form of degradation. This has its own consequences, especially for marginal farmers. According to one estimate, a severe drought can lead to a 24-58% reduction in household income and a 12-33% increase in household poverty. With over 67% of our total cropped area being rain-fed agriculture, weather variability can be very costly, especially for coarse cereals (which are mostly grown in rain-fed areas). A predicted 70% decline in summer rainfall by 2050 will devastate Indian agriculture. Within 80 years, our average temperature during Kharif season could increase significantly (0.7-3.3°C), which would also affect rainfall and possibly lead to a 22% decline in wheat yield during Rabi season, while rice yield could fall by 15%.

42. Which of the following is the most important implication of the above passage?
- A. India's food security and livelihood security of farmers will be seriously threatened solely due to climate change taking place in India.
 - B. Mitigation measures are the need of the hour to reverse the adverse effects of climate change.
 - C. In the era of minimum government maximum governance, governments do not need to provide alternative employment to farmers who leave agriculture due to falling productivity.
 - D. The government needs to invest in flood irrigation systems that use groundwater to maintain current irrigation levels.
43. Which of the following is/are correct conclusions that can be drawn from the passage?
- 1. In the next 7-8 years, the rainfall in Bundelkhand region will be reduced by half.
 - 2. The adverse impacts of climate change on agriculture are likely to increase pressure on urban civil infrastructure.
 - 3. Huge investments are required in the agriculture sector with various adaptation techniques.

Select the correct answer using the code given below.

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

44. The graph given below shows the data for the number of constitutional amendments in India per decade. Study it carefully and answer the questions that follow



What is/are the most logical statement(s) that can be concluded from the observation of the graph?

1. The Constitution of India provides for a unique amendment procedure compared to the constitutions of other countries.
2. The nature of the Indian Constitution is living, it is constantly evolving.

Select the correct answer using the code given below.

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 nor 2

45. A man purchases two air conditioners at Rs 30,000 each, keeping in view the onset of summer. He obtains the entire required amount as a loan from an NBFC at an interest rate of 10%. He agrees to pay the entire amount in three installments. At the end of the first year, he pays Rs 16,000 as the first installment. At the end of the second year, he pays Rs 20,000 as the second installment. What will be the installment amount if he wants to pay the installment at the end of the third year?

A. Rs. 36,000
B. Rs 38,500
C. Rs. 40,500
D. Rs. 56,000

46. If $x + y = 36$, which of the following must be true?

1. Both x and y must be positive.
2. If x is positive, then y must be negative.
3. If x is negative, then y must be positive.

Select the correct answer using the code given below.

A. Only 1
B. Only 3
C. Only 2
D. Neither 1 nor 2 nor 3

47. Consider the series given below:

24/12/19, 6/1/20, 23/1/20, 11/2/20,what will be the next term of this series?

A. 4/3/20
B. 5/3/20
C. 6/3/20
D. 7/3/20

48. Prem is the child of Shubh, he is married to Daya. Bala is the daughter of Shubh, who has only two children. Shubh is the grandfather of Geet. Rathi is the only son of Daya. Prem has two children, and one of them is married to Nupur. Nupur is married to Geet's brother. There are only 7 members in the family. How is Geet related to Bala?

A. Aunt
B. Son
C. Daughter
D. Niece

49. A woman named Y got lost in the desert. In a desperate attempt to get back to her town, she walks 3 km south and then turns right and walks 2 km. She again turns right and walks 3 km. Then she turns left and starts walking straight. In which direction is she walking now?
- A. East
 - B. North
 - C. South
 - D. West

Instructions for the following 3 (three) questions:

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

Paragraph-1

The truth is that 2019 is not 1989 and much has changed in Afghanistan and the outside world. Although Afghan security forces suffered heavy losses last year, it is now highly unlikely that the Taliban will be able to take over and hold Kabul or any other city as before. It is also inconceivable that a “complete withdrawal” of US troops will involve abandoning all the bases they currently hold. Given the advances in technology, social media and education in Afghanistan since 2001 (the number of secondary graduates has risen from 10,000 in 2015 to over 300,000), it is now highly unlikely that the Taliban will be able to control the hearts and minds of Afghans even if they resort to their earlier brutal measures. Thousands of Afghans are educated in India. Given the special place India has in the hearts of the youth and women inspired by Indian development projects and of the hundreds of military officers trained in India, it cannot afford to pursue policies that endanger India's interests.

50. Consider the following assumptions as the basis of the above passage?
- 1. Educated people are less likely to succumb to cruel measures because they understand their rights better and are able to voice their concerns.
 - 2. People are more likely to develop a soft corner in their hearts towards a country which has helped them in their education, training, development work, etc.

While writing the paragraph, which of the above assumptions might have been in the author's mind?

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. None of the above

51. What is the main message of this passage?
- A. Over the past 30 years, Afghanistan has transformed from a brutal Taliban regime to a fully democratic regime.
 - B. The United States should not withdraw its troops from Afghanistan because Afghan security forces are not sufficiently strong.
 - C. If the Taliban return to power, the people of Afghanistan will revolt against the Taliban.
 - D. Armed forces are more or less homogeneous, so changes in external and non-military factors can have a significant impact on the final outcome of a conflict.

Paragraph-2

Climate change and the consequent rapid melting of the Arctic ice sheet is the most significant event that is redefining the global perspective on the Arctic. Current scientific consensus indicates that the Arctic may experience a nearly ice-free summer by 2030, which will pose immense opportunities as well as challenges not only for the island countries but also for the entire international community. While the benefits of oil and gas deposits, marine biological resources and short-distance shipping routes connecting the Pacific and Atlantic Oceans in the Arctic region cannot be denied, the adverse impacts of melting Arctic ice sheet on indigenous communities and marine ecosystems and the resulting increase in global warming cannot be denied equally.

52. The author of this passage is of the opinion that:
- A. The United Nations Convention provides for the use of benefits from the exploitation of yet unexplored resources of the Arctic to mitigate adverse effects resulting from rapid melting of ice.
 - B. Melting of the Arctic ice cover creates economic opportunities and also requires the international community to take steps to mitigate its adverse impacts.
 - C. The benefits arising from the exploitation of the yet unexplored resources of the Arctic should be shared only by the island countries.
 - D. Melting of Arctic ice will submerge all low lying coastal areas around the world.

Direction for the following 3 (all three) questions:

Consider the information given below and answer the questions that follow.

In a school, there are exactly six classrooms in a straight line. Six different classes namely Classes I, II, III, IV, V, and VI are held in these classrooms. In the first period, exactly six teachers of different subjects- Hindi, English, Science, Mathematics, Drawing and Sports-visited these classes such that only one teacher visited each class.

The following information is also known about the teachers who took the various classes:

1. The Drawing teacher went to the classroom located at the extreme left of Class V and at the extreme right of Class II.
2. The Maths teacher went to class III which is next to class II.
3. The English teacher went to the classroom to the extreme left of class I.
4. The Hindi teacher went to class IV, which is the first class from the left end and is located immediate left of the class the Science teacher went to.
5. There are exactly four classes to the left of Class I and Class IV is not adjacent to Class III.

53. Which class did the math teacher go to?

- A. V
- B. VI
- C. III
- D. II

54. The teacher of which subject went to class VI?

- A. Science
- B. Hindi
- C. Drawing
- D. Sports

55. The teacher of which subject went to the classroom which is immediate right of classroom II?

- A. Science
- B. Hindi
- C. Drawing
- D. Mathematics

56. 29 paintings are displayed in an art exhibition, which are made using oil colours or water colours or both types of colours. Oil and water colours have been used in making 16 and 19 of these paintings respectively. What is the number of paintings in which both types of colours have been used?
- A. 5
B. 6
C. 3
D. 8
57. Sheetal went to a sale to buy some pants and skirts. When her friends asked her how many pants and skirts she bought, she replied, "The number of skirts is two less than twice the number of pants bought. Also, the number of skirts is four less than four times the number of pants bought". What is the number of pants and skirts bought by Sheetal?
- A. 2, 2
B. 1, 0
C. 1, 1
D. 4, 2

Directions for the following 5 (five) questions:

Read the following five passages and answer the questions that follow. Your answers to these questions should be based on these passages.

Paragraph-1

The major disparity between China and India is related to merchandise exports. India's share of world merchandise exports rose from 0.5 per cent in 1990 to 1.7 per cent in 2017, while China's share rose from 1.8 per cent to 12.8 per cent during the same period. This has undoubtedly been an important driver of China's rapid growth. The rapid growth in the large-scale and low-tech labour-intensive merchandise export sector led to a contemporaneous increase in demand for relatively low-skilled Chinese labour and also to the demand for massive infrastructure investment, which China invested in. While the labour demand was met by workers leaving the agricultural sector, the demand for infrastructure indicated that investment in infrastructure was cost-effective.

58. What is the basic message of this passage?
- A. India's services exports are higher than that of China.
B. A rapidly growing merchandise sector may have many positive externalities.
C. Increase in export of goods always leads to rapid economic growth.
D. Increase in service sector exports leads to moderate economic growth.

Paragraph-2

A large number of workers engaged in the unorganised sector are not covered under labour regulations and social security acts. This dual nature of the labour market in India may be a result of all the complex and multiple labour laws that make compliance with these regulations extremely costly. In 2016, there were 44 labour laws under the Central Government legislation. More than 100 laws fall under the jurisdiction of state governments. The multiplicity and complexity of laws makes compliance and enforcement of these laws difficult.

59. What is the basic message of this passage?

- A. The government should bring a new law to include all workers in the unorganised sector under the ambit of social security.
- B. Existing labour laws should be simplified to reduce compliance costs, thereby making their enforcement more effective.
- C. The government should transfer a minimum wage directly to workers who are outside the ambit of social security.
- D. Either (a) or (c)

Paragraph-3

Earlier, rural people were always present in Hindi films. It was a regular narrative motif: characters from rural areas would always come to the city. Those films created a division between rural and urban areas: villagers were seen as pure and urban people as impure, villagers as innocent and urban people as corrupt. They created a binary between village and city.

60. According to the passage, which of the following statements is correct regarding Hindi films?

- A. Now, only 'urban people' are portrayed in Hindi films.
- B. The divide that exists between 'rural' and 'urban' people is entirely due to Hindi movies.
- C. Earlier, Hindi films portrayed villagers as 'good' and urban people as 'bad'.
- D. Both (b) and (c)

Paragraph-4

The report titled 'A Quantum Leap for Gender Equality: For a Better Future of Work for All', which was launched earlier this month, shows that unpaid care work is the biggest barrier to women's employment. The report states that about 21.7% of women of the working age group are engaged in full-time unpaid care work. Only 1.5% of men fall into this category. It is high time that we all start sharing the responsibility of care work to build a society where everyone has equal opportunities to progress.

61. What is the basic message contained in this passage?

- A. The responsibility for care work should be shared as much as possible.
- B. All BPL women engaged in full-time care work should be paid minimum wages.
- C. Women engaged in full-time unpaid care work should be counted as unskilled workers.
- D. Increase in women's employment would lead to a big change in GDP growth.

Paragraph-5

Bhim, a small town in Rajasthan, witnessed a heartwarming protest on Mahatma Gandhi's birthday last year. The girl students of the local government school chose to honour the Father of the Nation not by garlanding his photo but by following his teachings - like satyagraha or civil disobedience. Hundreds of girls sat outside the school gate with a basic demand that they need more teachers. At that time, they had only three teachers in a school with an enrolment of 700 girls. Since then, the number of teachers has increased by only two teachers.

62. What is the basic message contained in this passage?

- A. Only the State Governments have failed to provide 'quality education', a fundamental human right.
- B. All government schools should be privatised as they have failed to maintain the prescribed teacher-pupil ratio.
- C. The Gandhian method of protest using Satyagraha is not at all effective in independent democratic India.
- D. None of the above.

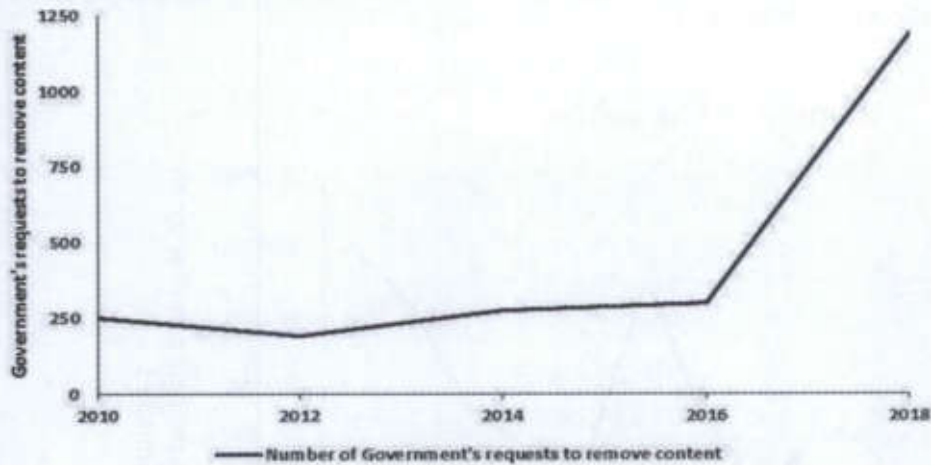
63. Consider the following marks obtained by 30 students of Class IX of a school (total marks out of 100):

10	20	36	92	95	40	50	56	60	70
92	88	80	70	72	70	36	40	36	40
92	40	50	50	56	60	70	60	60	88

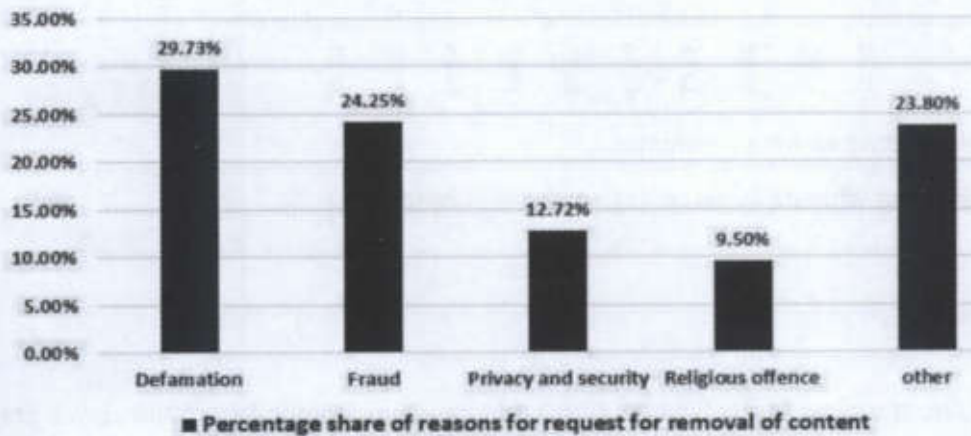
What is the frequency of the digit 40?

- A. 3
- B. 6
- C. 4
- D. 2

64. Consider the graph given below:



Percentage share of reasons for request for removal of content



The above two graphs show the statistics of the number of government requests to remove content related to Google products/services and the percentage share of the reasons for the request. Which of the following are the most logical and rational conclusions that can be drawn?

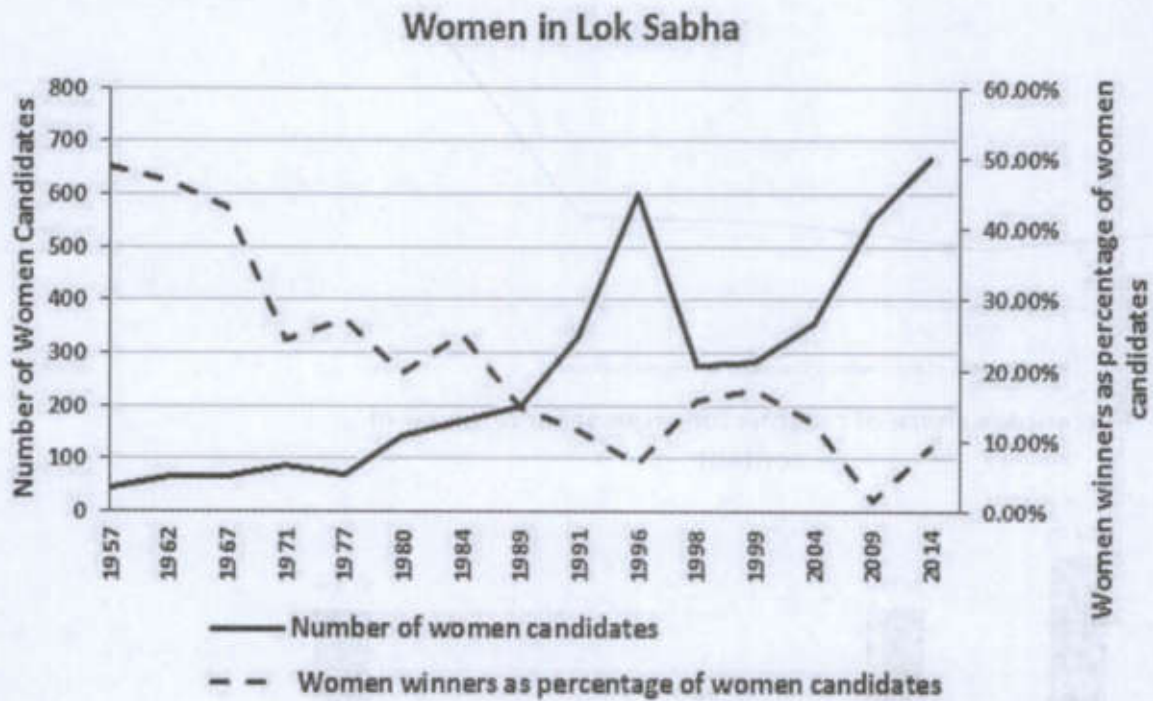
1. Government requests to remove content related to Google products/services increased sharply between 2016 and 2018.
2. The top two reasons for removing content from Google were defamation and fraud.
3. Most of the requests were related to YouTube content.

Select the correct answer using the code given below.

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

65.

The graph given below shows the number of women candidates contesting Lok Sabha elections from 1957 to 2014 and the figures of women winners as a percentage of women candidates. Study it carefully and answer the question that follows:



Which of the following is/are the most logical statement(s) that can be concluded from the above graph?

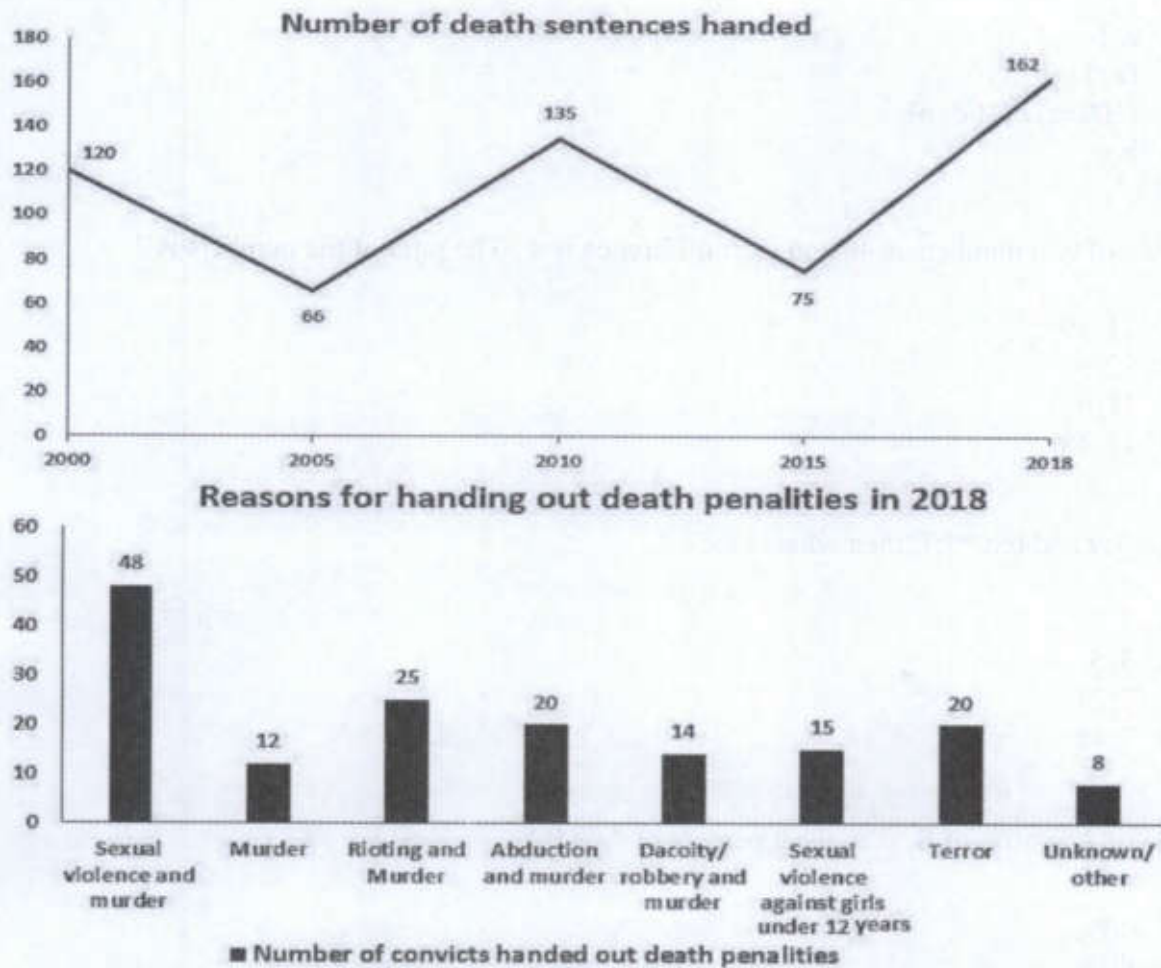
1. Apart from some hiccups, the number of women candidates contesting Lok Sabha elections has seen an upward trend.
2. In 2014, women competing in Lok Sabha elections had a higher success rate than men.

Select the correct answer using the code given below.

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 nor 2

66.

The graph given below gives us the data of number of death sentences awarded by Indian courts in different years and the reasons behind awarding death sentences in the year 2018. Study the graph carefully and answer the question that follows.



What is/are the conclusions that can be drawn from the above graphs?

1. The number of death sentences given by the courts has continuously increased in the country.
2. Laws against gender-based violence became stricter in the country in 2018.
3. Compared to previous years, the number of death sentences increased by 1 in 2018 due to higher number of gender crimes.

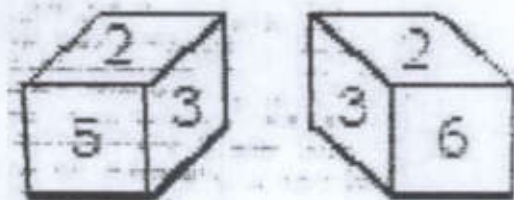
Select the correct answer using the code given below.

- A. Only 1
- B. 1 and 2 only
- C. Only 3
- D. None of these

67. If the numerator of a fraction is increased by $a\%$ and the denominator of the fraction is increased by $b\%$, then what will be the ratio of the new fraction to the original fraction?
- A. a/b
 - B. $(a+1)/(b+1)$
 - C. $(100+a)/(100+b)$
 - D. b/a
68. The sum of two numbers is 40 and their difference is 4. The ratio of the numbers is ?
- A. 21:19
 - B. 22:9
 - C. 11:9
 - D. 11:18
69. If $a:b = 7:9$ and $b:c = 5:7$, then what is $a:c$?
- A. 5:9
 - B. 3:5
 - C. 7:21
 - D. 7:15
70. If 20% of A = 50% of B, then what percent of A is B ?
- A. 30%
 - B. 40%
 - C. 25%
 - D. 15%
71. LCM of two numbers is 225 and their HCF is 5. If one number is 25, the other number will be?
- A. 5
 - B. 25
 - C. 45
 - D. 225

72. The product of two numbers is 9375 and the quotient, when the larger one is divided by the smaller, is 15. The sum of the numbers is?
- A. 395
B. 380
C. 400
D. 425
73. A man purchased 7 bags of rice at the rate of Rs. 800 each, 8 bags of rice at Rs. 1000 each and 5 bags of rice at the rate of 1200 each. What is the average cost of one bag of rice?
- A. Rs. 1000
B. Rs. 980
C. Rs. 1120
D. Rs. 1050

74. From the following two different appearances of dice, find out the number which is opposite to '5'



- A. 2
B. 3
C. 4
D. 6

75. When looking in a mirror it appears that it is 6:30 in the clock. What is the real time?
- A. 6:30
 - B. 5:30
 - C. 6:00
 - D. 5:00
76. If Tuesday falls on 19 July 2019, what will be the day of 16 Feb 2019?
- A. Tuesday
 - B. Wednesday
 - C. Thursday
 - D. Monday
77. Statements:
No cow is a chair.
All chairs are tables.
- Conclusion:
- I. Some tables are chairs.
 - II. Some tables are cows.
 - III. Some chairs are cows.
 - IV. No table is a cow.
- A. Either II or III follow
 - B. Either II or IV follow
 - C. Only I follows
 - D. None of these
78. M is the son of P, Q is the granddaughter of O who is the husband of P. How is M related to O?
- A. Son
 - B. Grandson
 - C. Father
 - D. Uncle

79. My friend walks towards east. After 10 m he took a left turn and goes 5 m and again He took left turn and goes 10 m. How far is he from the starting point?
- A. 5m
 - B. 2m
 - C. 3m
 - D. 4m

Directions for the following 4 (four) questions:

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

Paragraph-1

A crewed mission to space is radically different from other spaceflights. It is not necessary for scientists and engineers to develop human spaceflight capability to be able to do other things. So the million-dollar question is why they are doing it. Although the romanticism of it has constantly changed, the achievement of sending humans into space has been prestigious enough as a goal in itself. So, the bigger and more fundamental question is what is prestige, and is it valuable enough to overlook other equally prestigious endeavors. Is anything as prestigious as human spaceflight? It is hard to say because there is a unique element to human spaceflight. It is tied to intergenerational aspirations and it carries enormous symbolic value. For some reason, exploring asteroids or launching a probe to Pluto does not have the same promotional value. Still, robotic missions cannot be underestimated either. Many of these rival human missions in complexity and design prowess. Like the Curiosity rover on Mars, the upcoming Chandrayaan-2 mission involves landing an ISRO-built rover on the Moon and then operating it remotely. Where manned missions get more complicated is their safety index.

80. According to the passage, which of the following statements is/are correct regarding human mission to space?
- 1. Manned mission into space is a significant milestone in the country's space mission.
 - 2. The economic costs of manned space flight far outweigh the 'symbolic benefits' it provides.
 - 3. Space missions to distant celestial bodies such as Pluto have greater symbolic value than manned space flights.

Select the correct answer using the code given below.

- A. 2 and 3 only
- B. Only 1
- C. Only 3
- D. 1 and 3 only

81. Which of the following is the most important implication of this passage?
- A. At present, human spaceflight is not a complex technological project in any way.
 - B. Manned space missions should be abandoned as they have only symbolic benefits.
 - C. ISRO's upcoming Chandrayaan-2 mission is more complex than human space flights.
 - D. None of the above.
82. The author of this passage is of the opinion that:
- A. Robotic missions involve more complex and challenging technology than manned missions
 - B. Instead of expanding its space mission, India should concentrate on the problems of common people like poverty, health etc.
 - C. India's human space flight mission has lost its promotional value as ISRO will not be the first space organisation to send humans into space.
 - D. The promotional value attached to crewed missions distinguishes them from other space missions.

Paragraph-2

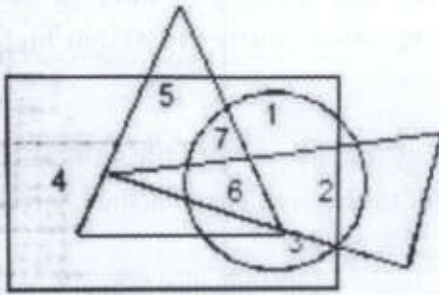
The imbalance between agriculture's contribution to national income and its share in employment remains large and has widened. The manufacturing and services sectors have failed to absorb the excess workforce employed in agriculture. Consequently, value added per worker in agriculture has grown slowly and income per farmer has never exceeded one-third of the income of a non-agricultural worker since the 1980s. It took the country 22 years to double farmers' income at an annual growth rate of 3.31 per cent during 1993-94 to 2015-16; doubling farmers' income between 2015-16 and 2022-23 would require an annual growth rate of 10.4 per cent in real farmers' income.

83. According to the passage, which of the following statements is/are correct regarding the farmers of the country?
- 1. Manufacturing and service sectors in the country have failed, leading to excessive labour force in the agricultural sector.
 - 2. Doubling the income of farmers by 2022-23 is impossible due to the requirement of high growth rate.
 - 3. Shifting of labour force from agriculture to manufacturing sector can play a vital role in achieving the target of doubling the per capita income of farmers.

Select the correct answer using the code given below.

- A. 1 and 3 only
- B. Only 3
- C. 1 and 2 only
- D. 2 and 3

84. Which number is present only in one geometrical figure?



- A. 3
B. 2
C. 5
D. 4
85. If sky is water, water is yellow, yellow is blue, blue is fish, fish is crow, crow is bird and bird is sky in a coding language, then where does the crow live?
- A. In sky
B. In water
C. In yellow
D. In bird
86. $43:12::84: ?$
- A. 46
B. 32
C. 12
D. None of these
87. Fruit, Flower, Stem,.....
- A. Scent
B. Leaf
C. Vegetation
D. Forest

In each question below is given a statement followed by courses of action. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy, etc. On the basis of the information given in the statement, you have to assume everything in the statement to be true, then decide which of the suggested courses of action logically follow(s) for pursuing.

88. A heavy unseasonal downpour during the last two days has paralyzed the, normal life in the state in which five persons were killed but this has provided a huge relief to the problem of acute water crisis in the state.

Courses of action:

- I. The state government should set up a committee to review the alarming situation.
- II. The state government should immediately remove all the restrictions, on use of potable water in all the major cities in the state.
- III. The state government should send relief supplies to all the affected areas in the state.

- A. Only I
- B. Only II and III
- C. Only III
- D. All of the above

89. A large private bank has decided to retrench one-third of its employees in view of the huge losses incurred by it during the past three quarters.

Courses of action:

- I. The Govt. should issue a notification to general public to immediately: stop all transactions with the bank.
- II. The Govt. should direct the bank to refrain from retrenching its employees.
- III. The Govt. should ask the central bank of the country to initiate an enquiry into the bank's activities and submit its report.

- A. Only I
- B. Only II
- C. Only III
- D. Only I and III

90. The school dropout rate in many districts in the state has increased sharply during the last few years as the parents of these children make them work in the fields owned by others to earn enough for them to get at least one meal a day.

Courses of action:

- I. The Govt. should put up a mechanism to provide food grains to the poor people in these districts through public distribution system to encourage the parents to send their wards to school.
- II. The Govt. should close down some of these schools in the district and deploy the teachers of these schools to nearby schools and also ask remaining students to join these schools.
- III. Govt. should issue arrest warrants for all the parents who force their children to work in fields instead of attending classes

- A. Only I
- B. Only II
- C. Only III
- D. Only I and II

91. You are a District Magistrate, and during a surprise visit, you find that a government school is running without proper sanitation facilities. The headmaster argues about lack of funds. What should you do?

- A. Suspend the headmaster immediately
- B. File a complaint to the Education Department
- C. Arrange immediate temporary facilities and report the issue to higher authorities
- D. Ignore as it is not your department

92. A government scheme for farmers is being underutilized because most farmers are unaware of it. What will you do?

- A. Issue an internal memo
- B. Blame the concerned officer
- C. Launch awareness drives using local media and Gram Sabha meetings
- D. Suspend the Officers responsible

93. A female officer in your department complains of harassment by a colleague. What is your immediate step?

- A. Call both for a direct confrontation
- B. Transfer the complainant
- C. Form an internal complaints committee and initiate inquiry
- D. Ignore to avoid controversy

94. You find that tenders were given to companies using forged documents. What do you do?
- A. Cancel tenders and initiate probe
 - B. Let them continue to avoid delay
 - C. Transfer the case to another department
 - D. Ignore as the work is being done
95. Your close friend is cheating in an exam and asks for your help. What will you do?
- A. Help because he is your friend
 - B. Ignore him and focus on your own exam
 - C. Inform the teacher
 - D. Whisper the answer so he doesn't get caught
96. You are assigned a task with a short deadline, but you realize you don't have complete information. What will you do?
- A. Submit incomplete work
 - B. Guess and complete it
 - C. Ask for clarification or help
 - D. Leave the task
97. You are heading a disaster relief team, and there's shortage of food packets. Whom do you prioritize?
- A. Distribute equally
 - B. Give to the workers first
 - C. Prioritize women, children, and elderly
 - D. First come, first served
98. During a field visit, a villager offers you a costly gift out of respect. What is the most ethical action?
- A. Accept it to maintain relations
 - B. Accept and donate it later
 - C. Politely refuse the gift
 - D. Accept and report it

99. Your subordinate is consistently late but is otherwise very efficient. What will you do?
- A. Fire him immediately
 - B. Ignore the delay since he's efficient
 - C. Warn him formally and try to understand the reason
 - D. Reduce his workload
100. As a school principal, you discover that a teacher has been unfairly grading students. What will you do?
- A. Ignore it to maintain the school's image
 - B. Warn the teacher verbally
 - C. Conduct an inquiry and take corrective steps
 - D. Tell students to complain directly

.....X.....

US/10

SPACE FOR ROUGH WORK