



TEST FORM NUMBER

Maximum Marks : 450

Total Questions : 150

Time Allowed : 135 Min.

INSTRUCTIONS TO CANDIDATE**Read the following instructions carefully before you begin to attempt the questions.**

- (1) This booklet contains 150 Questions in all three sections having two modules each:

Section-I : 60 minutes	Section-II : 60 minutes	Section-III : 15 minutes
Module-I: Mathematical Abilities (30 Questions)	Module-I: English Language and Comprehension (45 Questions)	Module-I: Computer Knowledge Test (20 Questions)
Module-II: Reasoning and General Intelligence. (30 Questions)	Module-II: General Awareness (25 Questions)	

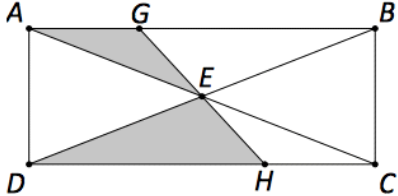
- (2) All the questions are compulsory and carry equal marks. It will be mandatory for the candidates to qualify all the sections of Paper-I.
- (3) Before you start to attempt the questions, you must explore this booklet and ensure that it contains all the pages and find that no page is missing or replaced. If you find any flaw in this booklet, you must get it replaced immediately.
- (4) Each question carries negative marking also as 1/3 mark will be deducted for each wrong answer.
- (5) Answer must be shown by completely blackening the corresponding circles on the Answer-Sheet against the relevant question number by pencil or Black/Blue ball pen only.
- (6) A machine will read the coded information in the OMR Answer-Sheet. In case the information is incompletely different from the information given in the application form, the candidature of such candidate will be treated as cancelled.
- (7) The Answer-Sheet must be handed over to the Invigilator before you leave the Examination Hall.
- (8) Failure to comply with any of the above Instructions will make a candidate liable to such action/penalty as may be deemed fit.
- (9) Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any question.
- (10) Mobile phones and wireless communication device are completely banned in the examination halls/rooms. Candidates are advised not to keep mobile phones/any other wireless communication devices with them even switching it off, in their own interest. Failing to comply with this provision will be considered as using unfair means in the examination and action will be taken against them including cancellation of their candidature.
- (11) No rough work is to be done on the Answer-Sheet.
- (12) No candidate can leave the examination hall before completion of the exam.

NAME OF CANDIDATE:.....
 DATE :..... CENTRE CODE :.....
 ROLL No

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

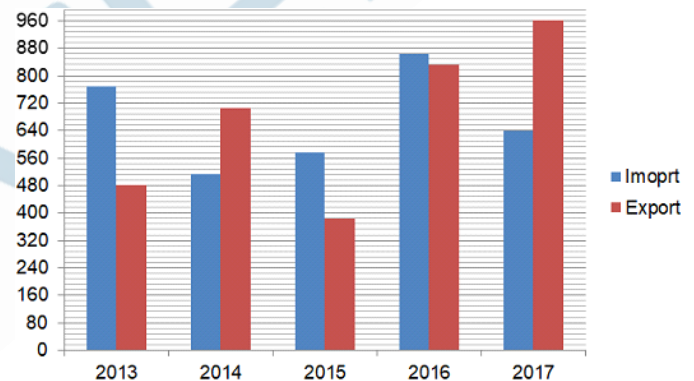
Section-I : 60 minutes

Mathematical Abilities

1. After striking a floor, a rubber ball rebound $(4/5^{\text{th}})$ of the height from which it has fallen. Find the total distance (in meters) that it covers before coming to rest, if it is gently dropped from a height of 100 meters.
(A) 900 metres (B) 800 metres
(C) 720 metres (D) 640 metres
2. A and B can do a task alone in 25 and 40 days, respectively. Now according to a new method, they work on alternate days with A starting the work and after every 2 days of work, they take 1 day holiday and after holiday the person who worked on the last day before holiday resumes the work. With this method, how many days will they take to complete whole task?
(A) 45 days (B) 46 days
(C) 54 days (D) 53 days
3. Four numbers are such that when average of any of the three numbers is added with the remaining fourth number, the numbers obtained are 348, 380, 420 and 364 respectively find the largest number among them.
(A) 192 (B) 252
(C) 168 (D) 144
4. A trader bought an article for Rs. 900. He sells this article at a discount of 10% and thereby makes a profit of 25%. What was the marked price of the article?
(A) Rs. 1250 (B) Rs. 1650
(C) Rs. 1125 (D) Rs. 1450
5. The price of wheat goes down by 10% and so a customer is able to buy 5 kg more wheat for Rs 270. What was the difference between the original and reduced price of wheat per kg?
(A) 80-paise (B) Rs. 1.2
(C) 40-paise (D) 60-paise
6. Rajiv took a loan of certain amount from a bank offering a compound interest of 12% p.a. compounded annually, for 3 years. At the end of second year, he paid Rs. 5197 and cleared all his dues by paying Rs. 1204 at the end of third year. Find the amount of loan taken by Rajiv.
(A) Rs. 4500 (B) Rs. 8000
(C) Rs. 5000 (D) Rs. 6000
7. In the given figure ABCD is a rectangle in which AB = 8 cm and AD = 2 cm. What is the area of the shaded region?
- 
- (A) 8 cm^2 (B) 4 cm^2
(C) 6.4 cm^2 (D) 7.2 cm^2
8. A tangent of length 16 cm, drawn from point P, is touching a circle at point Q, and the distance between the point P and the centre of circle is 20 cm, find the radius of the circle.
(A) 15 cm (B) 12 cm
(C) 18 cm (D) 22 cm

9. If a right rectangular prism has faces with areas 35 cm^2 and 56 cm^2 , and volume of the prism being 280 cm^3 , then what is the surface area (in cm^2) of the prism?
(A) 262 cm^2 (B) 254 cm^2
(C) 264 cm^2 (D) 248 cm^2
10. A regular hexagon has side 20 cm each. What is the enclosed area of the largest equilateral triangle which will fit inside this hexagon?
(A) $300\sqrt{3} \text{ cm}^2$ (B) $240\sqrt{3} \text{ cm}^2$
(C) $200\sqrt{3} \text{ cm}^2$ (D) $360\sqrt{3} \text{ cm}^2$
11. The value of $[\sec x(1 - \sin x)(\sin x + \cos x)(\sec x + \tan x)]/[\sin x(1 + \tan x) + \cos x(1 + \cot x)]$.
(A) $\sin x \cos x$ (B) $2 \sin x$
(C) $\operatorname{cosec} x \sec x$ (D) $2 \cos x$
12. If $x^3 - 3x^2 + 4x + 2 = 0$ has roots p, q and r, then what is the value of $1/p + 1/q + 1/r$?
(A) -2 (B) 0
(C) 2 (D) -1

Direction: (13-15): The given bar graph shows the imports (in kg) and exports (in kg) of steel by a country from 2013 to 2017.

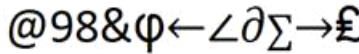
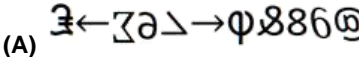
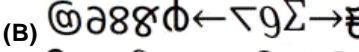
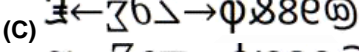
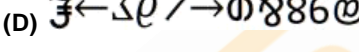


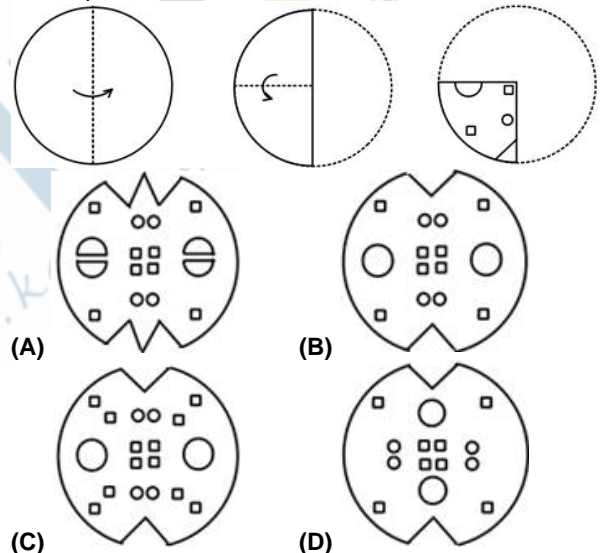
13. What is the ratio of total imports of steel in 2013 and 2015 together to total exports of steel in 2014 and 2016 together?
(A) 7:8 (B) 8:7
(C) 7:6 (D) 6:7
14. Total amount of imports of steel in 2014 and 2016 together is how much percent more/less than total amount of export of steel in 2017?
(A) 43.33% (B) 46.67%
(C) 42.44% (D) 45.67%
15. What is the difference between average quantity of imports and exports of the steel between 2013 and 2017?
(A) $22/3 \text{ kg}$ (B) $32/3 \text{ kg}$
(C) 0 kg (D) 9 kg
16. The coordinates of a triangle are A(2, 5), B(-2, 3) and C(0, -3); then find the equation of the median AD?
(A) $8x - 5y + 3 = 0$ (B) $6x - 3y + 4 = 0$
(C) $5x - 3y + 5 = 0$ (D) $4x - 2y + 7 = 0$
17. The smallest integer for which the inequality $\{(x - 5)/(x^2 + 2x - 35)\} > 0$ is true is:
(A) 0 (B) -6
(C) -5 (D) -7

18. A ladder 3.8 metres long is standing against a wall and the foot of the ladder is 3.2 metres away from the foot of the wall. If the top of the ladder now slips by 0.6 metres, then the foot of the ladder shifts approximately by:
 (A) 0.16 metres (B) 0.31 metres
 (C) 0.88 metres (D) 1.02 metres
19. A boat is being rowed away in still water, from a 420 m high cliff at the speed of 6 km/h, what is the approximate time taken for the angle of depression of the cliff of the boat to change from 60° to 45° ? (Take $\sqrt{3} = 1.732$)
 (A) 2 minutes (B) 5 minutes
 (C) 8 minutes (D) 12 minutes
20. If $a = 997$, $b = 998$ and $c = 999$ then, find the value of $a^3 + b^3 + c^3 - 3abc$.
 (A) 8982 (B) 10000
 (C) 7925 (D) 9999
21. The height, length and width of room is 8 metres, 12 metres and 6 metres, respectively. Find the cost painting the four walls of the room if the cost of painting an area of 12 m^2 is Rs. 100.
 (A) Rs. 28,800 (B) Rs. 14,400
 (C) Rs. 2,400 (D) Rs. 4,200
22. Find the ratio of mean proportional of '4' and '9' to the fourth proportional of '3', '5' and '6'.
 (A) 5:6 (B) 1:4
 (C) 2:3 (D) 3:5
23. A number leaves 17 as remainder when divided by 754. If the same number is divided by 13, then which of the following would be the remainder?
 (A) 4 (B) 8
 (C) 2 (D) 0
24. A sum when invested at compound interest of 20% p.a., compounded annually amounts to Rs. 9,936 after $(11\frac{1}{4})$ years. Find the sum invested.
 (A) Rs. 5,400 (B) Rs. 6,000
 (C) Rs. 7,200 (D) Rs. 6,400
25. Ratio of marked price and cost price of an article is 5:4, respectively. If the article is sold after giving a discount of 12% such that there is a profit of Rs. 40, then find the marked price of the article.
 (A) Rs. 800 (B) Rs. 500
 (C) Rs. 750 (D) Rs. 660
26. Find the simplified value of:
 $\sqrt{41 + 12\sqrt{5}} v$
 (A) $(6 - \sqrt{5})$ (B) $(6 + \sqrt{5})$
 (C) $(2 + \sqrt{3})$ (D) $(3 - \sqrt{2})$
27. If length of the diagonal BD of a square ABCD is 12.5 cm, then find the area of the square.
 (A) 75.525 cm^2 (B) 82.50 cm^2
 (C) 78.125 cm^2 (D) 80.125 cm^2
28. Find the value of $\{\cot 10^\circ \times \cot 20^\circ \times \cot 60^\circ \times \cot 80^\circ \times \cot 70^\circ\}$
 (A) $(1/\sqrt{3})$ (B) 1
 (C) $\sqrt{3}$ (D) 0
29. Rakesh spends 50% of his income. If his income is increased by 20% while his expense is increased by 8%, then find the percentage change in his savings.
 (A) 12% (B) 32%
 (C) 25% (D) 18%


30. ABCD is an isosceles trapezium where $AB \parallel DC$. If $AB = 4 \text{ cm}$, $DC = 8 \text{ cm}$ and area of trapezium is 9 cm^2 , then find the height of the trapezium.
 (A) 1.25 cm (B) 1.50 cm
 (C) 1.75 cm (D) 2.00 cm

Reasoning and General Intelligence


31. Select the option that most correctly resembles the mirror image of the given figure when a mirror is placed to its right side.

 (A) 
 (B) 
 (C) 
 (D) 
32. Find out from amongst the four alternatives I, II, III and IV, as to how the pattern would appear on the sheet when the sheet is folded at the dotted line and is punched as shown.




33. Select the option that is related to the fifth number in the same way as the second number is related to the first number and the fourth number is related to the third number.
 $27:53:: 84:80:: 96:?$
 (A) 117 (B) 105
 (C) 140 (D) 118
34. Select the option that is related to the third letter cluster in the same way as the second letter cluster is related to first letter cluster.
 $EGIK: HKNQ:: JLNP:?$
 (A) LORU (B) MPRV
 (C) MRSU (D) MPSV
35. Alex walked for 4 m towards the north from point A then he took a right turn and walked for 6 m. Finally he took a right turn and reached point C which is to the east of point A. Ron started walking to the south from point B and walked for the half of the shortest distance between points A and C. He took a right turn and walked for 9m. Finally he took a right turn to reach point C which is to the west of B. What is the difference of distances walked by both?

- (A) 15 m (B) 1 m
(C) 7 m (D) 11 m
36. K's father G is A's brother. M, who is A's sister-in-law, is R's daughter. T has two sons only. K is granddaughter of R. A, who is a male, has only one sibling. How is M related to T?
(A) Sister (B) Niece
(C) Granddaughter (D) Daughter-in-law
37. In a certain code language, 'cure and heal' is coded as '219', 'heal the scar' is coded as '509', then what is the code for the word 'heal'?
(A) 2 (B) 1
(C) 0 (D) 9
38. In a coded language, RETAIN is coded as 24, BESIDES is coded as 35 and PROCEDURE is coded as 63, then what is the code for GIVEN ?
(A) 8 (B) 15
(C) 24 (D) 80
39. In the following question, correct the equation by interchanging two numbers on the same side.
 $120 \div 3 + 14 \times 4 - 11 = 100 - 15 \times 26 \div 13$
(A) 11 and 14 (B) 15 and 13
(C) 3 and 4 (D) 100 and 26
40. What day of the week was 17 September, 2012?
(A) Saturday (B) Thursday
(C) Sunday (D) Monday
41. In the following question, a dice has six faces 4, 6, 8, s, t and u. Four positions of the same cube are given. What will be on the bottom face if '6' is at the top of the cube?
- 


(I)



(II)



(III)



(IV)
- (A) 8 (B) u
(C) t (D) 4
42. In the question below, two statements are given followed by conclusions: I, II and III. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.
Statements: All wants are wishes.
No need is a want.
Conclusions: I. Some wishes are not needs.
II. No need is a wish.
(A) Only I follows (B) Only II follows
(C) Both I and II follow (D) Either I or II follows
43. In the question below, two statements are given followed by conclusions: I, II and III. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.
Statements: Some leaflets are pamphlets.
No pamphlet is a page.
Conclusions: I. All pamphlets are leaflets.
II. No page is a leaflet.
III. Some leaflets are pages.
- (A) Only I follows (B) Either I or III follows
(C) Only I and II follow (D) Either II or III follows
44. Select the term that will replace the question mark (?) in the following series.
BEF, HIJ, ?, TQR, ZUV
(A) OLM (B) LNO
(C) NMN (D) LMN
45. Select the missing number from the given options.
- | | | |
|----|---|----|
| 12 | 6 | 9 |
| 56 | 2 | 13 |
| 17 | 8 | ? |
- (A) 10 (B) 9
(C) 7 (D) 5
46. Six different coloured boxes have different sizes. Red is larger than at least two boxes. Black is smaller than both green and white ones. Orange is smaller than red and yellow. White is larger than green. Only two boxes are larger than black one. Which of the following is correct?
(A) Orange box is larger than green box
(B) White box is smaller than only one box
(C) Green box is smaller than red box
(D) Yellow box is larger than only one box
47. Three of the following four number-pairs are alike in a certain way and one is different. Find the odd one out.
(A) 8 : 70 (B) 13 : 175
(C) 9 : 90 (D) 11 : 127
48. In the question below, a statement is given followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Decide which of the conclusions logically follows.
Most of the athletes are swimmers. Some swimmers are artists.
Conclusion I: No athlete can be an artist.
Conclusion II: Some swimmers are athletes.
(A) Only conclusion I follows
(B) Only conclusion II follows
(C) Both conclusions follow
(D) Neither conclusion I nor conclusion II follows
49. Arrange the following words in a logical and meaningful order:
(1) Prescription (2) Physiotherapist
(3) Accident (4) Rest
(5) Medicine (6) Injury
(A) 3,6,2,5,1,4 (B) 3,6,2,1,4,5
(C) 3,6,2,1,5,4 (D) 3,6,4,2,1,5
50. A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
BBBBBBOB, BBBOBBBB, BBBBBOBB,
BBOBBBBB, BBBBBOBB
(A) BBBBBOBB (B) BBBBBOBB
(C) BBBBBOBB (D) BOBBBBBB
51. 110 soldiers are standing in a queue from front to end. A's position from the front is 56th. What is A's position from the end of the given queue?

- (A) 55th (B) 54th
 (C) 56th
 (D) Cannot be determined

52. In the question below, three statements are given followed by conclusions: I and II. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statements: All mats are toys.
 No gloss are mats.

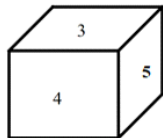
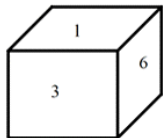
Conclusions: I. Some toys are mats.
II. Some toys are not gloss.

- (A) Only I follows.
 (B) Both I and II follow.
 (C) Either I or II follows.
 (D) None of the conclusions follow
53. In the question below, there are two statements followed by an inference. Mark the correct option accordingly.
 (a) It is easier to move goods from foreign countries to India than to move goods from state to state within India itself.
 (b) Indian government has reduced tariffs for imported goods.
Inference: Foreign companies are investing a lot in India.
 (A) The inference is definitely true.
 (B) The inference is definitely false.
 (C) The inference is probably true or false.
 (D) The inference cannot be drawn.

54. Three of the following letter pairs are similar in some manner and one is different. Find the odd one.
 (A) CFI (B) EJO
 (C) BDF (D) DHP

55. Three sisters and three brothers of a family are sitting in a linear row such that the sisters are facing north while the brothers are facing south. W is sitting to the immediate right of her brother. H is sitting at one of the corners. G is not facing south direction. O is sitting second to the left of Y. O is facing south. Two persons are sitting to the right of G. G is not the brother of W. Y is adjacent to neither H nor N. One person is sitting in between N and G who are facing toward opposite directions. Which of the following is the set of sisters?
 (A) H, W and G (B) N, O and H
 (C) Y, G and W (D) G, W and N

56. Two positions of the same cube are shown below. Which number appears on the face opposite to the number 2?



- (A) 2 (B) 3
 (C) 1 (D) 4

57. Arrange the following words as per the order in the dictionary.

1. Wagner 2. Wagged
 3. Wabash 4. Waggon
 5. Wackily
 (A) 3 5 2 1 4 (B) 3 5 1 4 2
 (C) 3 2 1 4 5 (D) 3 5 2 4 1

58. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices be represented first by its row and next by its column. e.g. 'A' can be represented by 01, 14 etc. and 'M' can be represented by 56, 68 etc. Similarly, you have identify the set for the word 'GRAVEL'. (MATRIX)

MATRIX I

	0	1	2	3	4
0	M	G	R	O	L
1	O	R	L	G	M
2	G	O	M	L	R
3	R	L	O	M	G
4	L	M	G	R	O

MATRIX II

	5	6	7	8	9
5	P	A	D	V	E
6	V	E	P	A	D
7	A	P	E	D	V
8	E	D	V	P	A
9	D	V	A	E	P

- (A) 20,24,97,66,65,40 (B) 01, 02,75,79,96,31
 (C) 13,02,65,89,75,40 (D) 42,24,75,58,59,23

59. Kritika is as many years older than Shikha as she is younger than Mukul. Sum of present ages of Kritika, Shikha and Mukul is 63 years. If age of Mukul after 11 years is 39 years, then what is the difference between present ages of Mukul and Shikha?
 (A) 12 years (B) 10 years
 (C) 14 years (D) 16 years
60. Which of the following will be a leap year?
 (A) 3402 (B) 3156
 (C) 3398 (D) 3262

Space For Rough Work

Section-II : 60 minutes

English Language and Comprehension

61. In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error' as your answer.
He made a few (A)/ extra money by writing (B)/ stories for a local (C)/ science fiction magazine. (D)
- (A) A (B) C
(C) B (D) D

Directions: (62-66): Read the following passage carefully and answer the questions.

Civil, foreign and World Wars were fought in a period when even the toughest armor could not stop the most lethal weapon. At the turn of the century, it is observed that protective gear was greatly scaled back, retreating once more from full-body armor to strategically placed metal plates. As battlefields grew farther apart and cannon fire spelled imminent death, and as the fighting grew less personal and more distanced (like the relationship between the men who called the orders to those who marched to them), men wore metal plates over their uniforms and donned metal helmets to protect against gunfire. These plates were placed over the heart, which often beat with a fear that was hardly aided by the presence of a thin metal sheet and, later, a tightly-woven polymer simply known as Kevlar.

Kevlar, or light and ultra-strong plastic polymers that are tightly woven into a flexible fabric, became popular after its discovery and implementation in the 1960s. It is now used in everything from sporting equipment—tennis rackets, Formula 1 cars, boating sails—to personal protective equipment like bulletproof vests. Despite all the advances in chemical compounds that form some of the strongest materials on Earth, and which are often used to mitigate the damage wrought by firearms or natural disasters, the science that has gone into the fireproofing and weaponization of simple polymers has more recently returned to its Arizona roots. Two years ago, researchers at the Air Force Research Laboratory announced that they would be looking into an age-old fiber to more fully explore its cooling and temperature regulation properties, and its use toward strengthening current synthetic fibers. That fiber was silk. Artificial spider silk, the researchers suggested, could make for a lighter, stronger and more breathable body armor than even Kevlar.

62. Apart from bulletproof vests, which of the following is Kevlar not used in today?
- (A) Formula 1 cars (B) boating sails
(C) tennis rackets (D) mattresses
63. Which of the following has recently been suggested by researchers as a new fiber that can be better than Kevlar for body armour purposes?
- (A) Artificial spider silk (B) Wool
(C) Japanese seaweed (D) Eggshells
64. It can be understood from the passage that prior to Kevlar, which of the following was used to protect against gunfire?
- (A) Wood (B) Glass
(C) Metal (D) Cloth

65. Which of the following statements about Kevlar is false?
- (A) It is made of ultra-strong plastic polymers
(B) It was discovered and implemented in the 1960s.
(C) It is woven into a flexible fabric that acts as a bulletproof vest.
(D) It can withstand high temperatures.
66. Which of the following do researchers wish to explore when examining an age-old fiber's potential for body armour?
- (A) its cooling and temperature regulation properties
(B) its tensile strength
(C) its elasticity
(D) its weight

Directions: (67-71): Read the following passage carefully and answer the questions.

Beginning roughly 2,000 years ago, the Calusa enjoyed centuries of dominance as the undisputed rulers of southwest Florida. Theirs was a complex society with trade routes spanning hundreds of miles; a powerful military; and built works including wide canals, islands made of shells and towering buildings. Unlike the Maya, Aztecs and Inca, the Calusa built their kingdom, which stretched from modern Tampa Bay to Ten Thousand Islands and as far east as Lake Okeechobee, without agriculture.

Researchers have long wondered how a society that collected all of its food by fishing, hunting and gathering was able to secure enough food to support its ambitious construction projects and military might. Now, a new study published in the Proceedings of the National Academy of Sciences reveals details of how the Calusa stockpiled live fish in massive holding pens, or "watercourts," built out of oyster shells. The idea that these waters courts held fish is not new, writes George Dvorsky for Gizmodo, but the paper is the first to conduct a systematic analysis of the ancient structures. The remains of these watercourts—the largest of which is seven times larger than an NBA basketball court—are located near Fort Myers in Mound Key, where the Calusa's capital city of Calos stood for 500 years.

Radiocarbon dating placed the construction of the watercourts between 1300 and 1400 A.D. This timeframe coincided with the second phase of construction of Calusa king Caalus' manor—a massive building that could hold 2,000 people at the time of its completion, according to Spanish documents. The watercourts could also have been an innovation prompted by a drop in sea level that occurred around 1250, potentially impacting "fish populations enough to help inspire some engineering innovation," says Karen Walker, study co-author and an archaeologist at the Florida Museum, in a statement. Bones and scales excavated from the ancient holding pens belonged to mullet, pinfish and herring, all schooling species that might have been easily herded inside.

67. As per the passage, which of the following tribes built their empire without agriculture?
- (A) Incas (B) Aztecs
(C) Maya (D) Calusa
68. Which of the following is not a feature of the Calusa empire?
- (A) a powerful navy
(B) Trade routes spanning hundreds of miles

- (C) Islands made of shells
(D) Wide canals
69. As per the passage, why did the Calusa people build watercourts?
(A) for recreational purposes
(B) for storing fish
(C) for drowning enemies
(D) for aesthetic purposes
70. Which of the following statements about watercourts is false as per the passage?
(A) They were built out of oyster shells.
(B) They held mullet, pinfish and herring.
(C) Their remains are located near Fort Myers.
(D) They were located on the outskirts of the empire.
71. Which of the following could have played a contributing role in the construction of watercourts by the Calusa people?
(A) A drop in sea level that occurred around 1250
(B) A change in ocean currents
(C) A change in wind patterns
(D) A change in ocean temperatures

Directions: (72-76): Read the following passage carefully and answer the questions.

Abu Hureyra is an important archaeological site in Syria, known for artifacts documenting early adoption of agriculture in the region. It may also be recognized as the only known human settlement to have been hit by a fragment of a comet. The site, now under the waters of Lake Assad, was quickly excavated between 1972 and 1973 before construction of the Tabqa Dam flooded the area. During the excavation, archaeologists realized that there were really two sites, one on top of the other. The first was a Paleolithic settlement of hunter-gatherers, and the second was a farming town, with new buildings of a different style.

A new analysis of samples of soil and artifacts salvaged from the original excavation has revealed a surprising finding: The Paleolithic village at Abu Hureyra was indirectly hit and destroyed by fragments of a comet that slammed into Earth about 12,800 years ago. The researchers think that upon entering Earth's atmosphere, the already-fractured comet likely broke up into several more pieces, many of which didn't reach the ground. Instead, they produced a string of explosions in the atmosphere known as airbursts. Each airburst was as powerful as a nuclear blast, instantaneously vaporizing the soil and vegetation underneath and producing powerful shock waves that destroyed everything for tens of kilometers around. The village at Abu Hureyra was hit by one of these shock waves.

72. What are artifacts of Abu Hureyra known for?
(A) documenting the early domestication of animals
(B) documenting the invention of the wheel
(C) documenting the early adoption of agriculture
(D) documenting the early use of tools
73. As per the passage, what is an airburst?
(A) a nuclear blast
(B) a supersonic wave
(C) an explosion in the atmosphere caused by a comet
(D) an explosion in the atmosphere caused by a meteor

74. During the excavation of the archaeological site, what did the researchers realise?
(A) that there were two sites atop each other
(B) that there were three sites atop each other
(C) that the site was older than they had thought
(D) that the site was the only one to be hit by a comet
75. How was it discovered that the site of Abu Hureyra was hit by a comet?
(A) during the excavation process
(B) after an analysis of soil and artifact samples
(C) after repeated excavation process
(D) after the construction of the dam flooded the area and threw up previously unknown artifacts
76. Which of the following statements about Abu Hureyra is false as per the passage?
(A) It is now under the waters of Lake Assad.
(B) It was flooded by the construction of the Tabqa Dam.
(C) It used to be a Paleolithic settlement of hunter-gatherers.
(D) It was one of the few human settlements to be hit by a comet.
77. In the following question, out of the four alternatives, choose the one which best expresses the meaning of the given word.
Irreverence
(A) Restive (B) Disrespect
(C) Avarice (D) Amity
78. In the following question, out of the four alternatives, choose the one which can be substituted for the given words/sentence.
Kindness shown to somebody when they are being punished
(A) Chutzpah (B) Chronic
(C) Clemency (D) Citation
79. In the following question, four different spellings of a word are given, out of which only one is correct. Find the correct spelling of the given word.
(A) anxious (B) anxous
(C) anxuuous (D) anxiuous
80. In the following question, a sentence is given with a phrase or idiom in brackets. Select the option given below that can replace the bracketed phrase. This confirms that the group has not only (run out) of money, but has exhausted its political capital, too.
(A) run after (B) run into
(C) run over (D) No Improvement
81. In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error' as your answer.
She had to practice (A)/ flying in various weather (B)/ conditions before she (C)/ could got her pilot's license. (D)
(A) B (B) D
(C) A (D) C
82. In the following question, a sentence has been given in Active/ Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.
The authorities had sanitised the park benches.
(A) The park benches were being sanitised by the authorities.

- (B) The park benches had been sanitised by the authorities.
 (C) The park benches were sanitised by the authorities.
 (D) The park benches have been sanitised by the authorities.

Directions: (83-87): In the following passage, some of the words have been left out and replaced by a blank. First read the passage and try to understand what it is about. Then fill in the blanks as per the questions given.

Throughout the world, from the humblest _____ to the most lavish mansion, our homes have always been a respite from the world. For many of us, our daily lives now _____ by quarantine, our homes have suddenly become our world. When we think of the technology that makes our homebound life bearable, we call to mind those electronic devices that allow us to remain connected to the outside world. However, it might _____ us to know that, for our ancestors, many of the objects we take for granted, like napkins, forks and mattresses, were also once marvels of comfort and technology—available to only the few. Our temperature-controlled homes filled with comfortable furniture and lights that turn on at the flick of a switch are luxuries _____ to the kings and queens of the past. Those things that were once only the purview of royalty—chandeliers, comfortable seating, bed pillows—have become such a part of our everyday lives that we forget that all but the basic necessities for survival were once out of reach for all but the upper _____ of society. Our homes are castles beyond what they could have ever imagined.

83. the humblest _____ to the most lavish
 (A) abode (B) abide
 (C) adept (D) adopt
84. our daily lives now _____ by quarantine
 (A) averted (B) apprised
 (C) upended (D) undertaken
85. it might _____ us to know that,
 (A) suppose (B) surprise
 (C) command (D) convince
86. are luxuries _____ to the kings and queens
 (A) understandable (B) urged
 (C) cynical (D) unfathomable
87. but the upper _____ of society.
 (A) echelons (B) eons
 (C) aliens (D) allures
88. In the question below, an idiom is given, followed by four options. Select the option that gives the correct meaning of the idiom.
 My experiment was a failure, so I'm **back to the drawing board**.
 (A) something unexpected and unpleasant
 (B) full of hope and enthusiasm
 (C) back to the beginning because the current attempt was unsuccessful
 (D) a controversial issue or situation that is awkward or unpleasant to deal with.
89. In the following question, out of the four alternatives, choose the one which can be substituted for the given words/sentence.
 One who is a centre of attraction
 (A) Cynosure (B) Crescendo

- (C) Counterfeit (D) Demagogue

90. In the following question, a sentence has been given in Direct/ Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Direct/ Indirect speech.
 "Do you have some extra money?" I said to her.
 (A) I asked her if she had some extra money.
 (B) I asked her do you have some extra money.
 (C) I asked her did she have some extra money.
 (D) I asked her if she has some extra money.
91. In the following question, a sentence has been given in Active/ Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.
 The countries face a lot of rainfall during the summer months.
 (A) A lot of rainfall has been faced by the countries during the summer months.
 (B) A lot of rainfall had been faced by the countries during the summer months.
 (C) A lot of rainfall is faced by the countries during the summer months.
 (D) A lot of rainfall will be faced by the countries during the summer months.
92. In the question given below, rearrange the sentences in the correct order, and choose the correct option. The first and sixth (last) statements are given in the right sequence and are fixed.
 1. Opera refers to a dramatic art form.
 P. The drama in opera is presented using the primary elements of theater such as scenery, costumes, and acting.
 Q. By contrast, in musical theater an actor's dramatic performance is primary, and the music plays a lesser role.
 R. It originated in Europe.
 S. It involves the display of emotional content to the audience as much through music as through the lyrics.
 6. However, the words of the opera are sung rather than spoken.
 (A) PQRS (B) RSQP
 (C) QPRS (D) PSQR
93. In the question below, an idiom is given, followed by four options. Select the option that gives the correct meaning of the idiom.
 I go to visit my grandfather only **once in a blue moon** as he lives in a remote farmhouse.
 (A) whenever one feels appropriate
 (B) at a rapid pace
 (C) very rarely
 (D) fairly often
94. In the following question, a sentence has been given in Direct/ Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Direct/ Indirect speech.
 "I will not go with John," said the boy.
 (A) The boy said that he would not go with John.
 (B) The boy said that he will not go with John.
 (C) The boy said that he would not be going with John.
 (D) The boy said that he would not be going without his uncle.
95. In the following question, a sentence is given with a phrase or idiom in brackets. Select the option given below that can replace the bracketed phrase.

At the dairy case, choose lower-fat products while at the meat counter, (go into) lean or extra-lean beef and pork.

- (A) go off (B) go out
(C) go for (D) No Improvement

96. In the following question, choose the word opposite in meaning to the given word.

- Dormant
(A) Illicit (B) Mild
(C) Active (D) Rigid

97. In the following question, a sentence has been given in Direct/ Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Direct/ Indirect speech.

- "I went to the store after the movie," said the woman.
(A) The woman said that she went to the store after the movie.
(B) The woman said that she had gone to the store after the movie.
(C) The woman said that she has gone to the store after the movie.
(D) The woman said that she goes to the store after the movie.

Directions: (98-102): In the following passage, some of the words have been left out and replaced by a blank. First read the passage and try to understand what it is about. Then fill in the blanks as per the questions given. The Drimolen Paleocave System is part of South Africa's Unesco World Heritage Site called the Cradle of Humankind, a collection of limestone caves near Johannesburg that are one of Africa's two great _____ of hominid fossils. More than 900 have been found, representing at least 5 different species, during _____ that began nearly a century ago. The big problem in South Africa has been dating all these finds. East Africa's rift valleys, the continent's other great hominin fossil source, feature layers of volcanic ash that can be dated by _____ the decay of radioactive elements, thereby dating the fossils within. In many South African caves, by contrast, older, fossil-filled sections have _____ into lower areas. Modern humans operated mines in the area, too. The result is a confusing and complicated landscape that _____ easy reconstruction.

98. two great _____ of hominid fossils.

- (A) sources (B) spurs
(C) surmises (D) spears

99. during _____ that began nearly

- (A) expirations (B) excitement
(C) excavations (D) expeditions

100. can be dated by _____ the decay

- (A) calculation (B) measuring
(C) ensuring (D) seizing

101. sections have _____ into lower areas.

- (A) descent (B) categorized
(C) collapsed (D) conspired

102. landscape that _____ easy reconstruction.

- (A) denigrates (B) divides
(C) deploys (D) defies

103. In the question given below, rearrange the sentences in the correct order, and choose the correct option. The first and sixth (last) statements are given in the right sequence and are fixed.

1. Steve was born in Tokyo in 1950.

P. Steve then moved to Cyprus to study at the Mediterranean University.

Q. He moved to London with his parents when he was 5 years old.

R. Steve started school there and his father began work at the hospital.

S. He lived in England for 2 years then moved to Jordan where he lived there for 10 years.

6. Unfortunately, he did not succeed and returned to Jordan.

- (A) PQRS (B) QRSP
(C) QPRS (D) PSQR

104. In the following question, out of the four alternatives, choose the one which best expresses the meaning of the given word.

- Laconic
(A) Conceited (B) Pomp
(C) Concise (D) Demented

105. In the given sentence, a blank is given indicating that something is missing. From the given four options, choose the one that provides the correct word to be filled in the blank, thereby making the sentence grammatically and contextually correct.

The criminal begged for parole, but the judge remained _____ for a life sentence

- (A) onerous (B) adamant
(C) timid (D) dauntless

General Awareness

106. Which River demarcated the Mahajanpadas of Magadha and Anga?

- (A) Gandak (B) Kosi
(C) Assi (D) Champa

107. How much is the difference of time between any two consecutive longitudes?

- (A) 10 minutes (B) 14 minutes
(C) 4 minutes (D) 30 minutes

108. Under which pardoning power of the President, one form of punishment is substituted by a lighter form?

- (A) Commutation (B) Remission
(C) Respite (D) Reprieve

109. Champaran Satyagraha was against which of the following?

- (A) Tinkathiya System (B) High rent
(C) Outsiders (D) Illegal transfer of land

110. Who is the author of the book titled "The Fractured Himalaya"?

- (A) Nirupama Rao (B) Radhika Menon
(C) Robin Sharma (D) Hermann Hesse

111. Which of the following is the apex banking institution of India that regulates the monetary policy?

- (A) Reserve Bank of India (B) Union Bank of India
(C) State Bank of India (D) Bank of India

112. To promote the welfare of Anganwadi workers in the state which government will equip Anganwadi workers with smartphones?

- (A) Punjab (B) Karnataka
(C) Tamil Nadu (D) Uttar Pradesh

113. Which of the following is NOT one of the books written by Mahatma Gandhi?

- (A) The Story of My Experiments with Truth
(B) Hind Swaraj
(C) The Discovery of India
(D) Satyagraha in South Africa

114. In which country political theory of 'Fascism' started?
 (A) Japan (B) Russia
 (C) Italy (D) China
115. Which OTT platform, in collaboration with the Ministry of Information & Broadcasting, has launched a short video series 'Azadi Ki Amrit Kahaniya'?
 (A) Amazon Prime (B) Disney + Hotstar
 (C) Netflix (D) Sony LIV
116. The Raleigh Commission (1902) was appointed to recommend reforms in:
 (A) The education system (B) Draught management
 (C) The judicial system (D) The police system
117. Who is the director of the recently released movie "Shershaah"?
 (A) Anurag Kashyap (B) Vishal Bhardwaj
 (C) Ashutosh Gowariker (D) Vishnuvardhan
118. What is the sex ratio of Kerala as per census 2011?
 (A) 1024 (B) 1084
 (C) 1044 (D) 1064
119. Identify the INCORRECT statement about Public Distribution System (PDS) in India.
 (A) From 1997, PDS became Targeted Public Distribution System (TPDS) for targeted consumers.
 (B) Revamped Public Distribution System (RPDS) was launched in June 1992
 (C) Those living below the poverty line get food grains at subsidized prices.
 (D) PDS has been abandoned in the country since 2007
120. Lord Curzon placed the question of setting up a 'stately' memorial for Queen Victoria, on her death in January 1901 to the public. The princes and people of India responded generously to his appeal for funds and Lord Curzon derived the total cost of construction of this monument amounting to _____ of rupees from their voluntary subscriptions.
 (A) One Crore, five lakhs
 (B) One Crore, fifteen lakhs
 (C) One Crore, twenty-five lakhs
 (D) One Crore, fifty lakhs
121. The part of the Himalayas lying between Satluj and Kali rivers is known as _____.
 (A) Punjab Himalaya (B) Nepal Himalayas
 (C) Kumaon Himalayas (D) Assam Himalayas
122. Which country will host the World Dairy Summit 2022?
 (A) United Kingdom (B) Ireland
 (C) South Korea (D) India
123. The song 'Jana-Gana-Mana' composed by Rabindra Nath Tagore was first published in January 1912 under the title of _____.
 (A) Matribhoomi
 (B) Jay Hey
 (C) Rashtra Jagriti
 (D) Bharat Bhagya Vidhata
124. Who was the founder of Satya Shodak Sabha in Maharashtra?
 (A) Gopal Baba Wala
 (B) Dr. Baba Saheb Ambedkar
 (C) Dr. Atmaram Pandurang
 (D) Jyotiba Phule
125. Mount Merapi volcano is located in which country?
 (A) NewZealand (B) Japan
 (C) Indonesia (D) China
126. Which organization publishes the report "World Economic Outlook"?
 (A) Economist Intelligence Unit (EIU)
 (B) Asian Development Bank (ADB)
 (C) New Development Bank (NDB)
 (D) International Monetary Fund (IMF)
127. In which of the following market forms a firm does not exercise control over price?
 (A) Mixed Competition (B) Monopoly
 (C) Oligopoly (D) Perfect Competition
128. Name the disease with which Edward Jenner is associated.
 (A) Cholera (B) Typhoid
 (C) Smallpox (D) Paralysis
129. Who is the only scientist in the world to have won the Nobel Prize in Chemistry twice?
 (A) Linus Carl Pauling (B) Roger D. Kornberg
 (C) Madame Curie (D) Frederick Sanger
130. What is Marble Cancer?
 (A) Disease in animals due to marble mines
 (B) Soil degradation due to marble mines
 (C) Cancer in human due to working in mines
 (D) Corrosion of marble due to acid rain

Space For Rough Work

Section-III : 15 minutes

Computer Knowledge

131. A pathway within a computer that carries data between hardware components is called_____.
- (A) Digital signal (B) Carrier signal
(C) Switching (D) Data bus
132. In database terms, _____ is a request for data or information from a database table or combination of tables.
- (A) Query (B) Rollback
(C) Form (D) Report
133. Which is a pen-shaped handheld instrument used with touch screen input devices or graphics tablets?
- (A) Case (B) Stylus
(C) Printer (D) Plotter
134. In MS Excel, if we want to select the entire column, which of the following shortcut key must be used?
- (A) Ctrl + Alt (B) Ctrl + Alt + Del
(C) Shift + Ctrl (D) Ctrl + Space
135. In Computer Terminology, what is the full form of SMPS?
- (A) Switched Mode Power Supply
(B) Settled Mode Power Supply
(C) Switch Mode Packet Switch
(D) Supply Mode Packet Switch
136. Which among the following is a free open-source operating system (OS) based on UNIX?
- (A) Windows (B) Linux
(C) DOS (D) Python
137. The topology which has highest reliability and are typically used for things like home automation, smart HVAC control, and smart buildings is_____.
- (A) Ring topology (B) Bus topology
(C) Mesh topology (D) Star topology
138. _____ has officially launched its new Windows operating system 'Windows 11', recently.
- (A) Microsoft (B) Google
(C) Adobe (D) Facebook
139. _____ refers to the measurement of data that is transferred between two points within a set amount of time.
- (A) Latency (B) Bandwidth
(C) Meta-data (D) Stack
140. Which among the following are the small toggle switches used to configure the hardware devices?
- (A) Headers (B) Beacons
(C) Packets (D) Jumpers
141. Which of the following statements about a Null character is true?
- (A) It is a character with all its bits set to zero
(B) It always has the same value as FALSE
(C) It can be entered by pressing SHIFT key
(D) As an integer, it is represented as -1
142. What is the term used for a file that contains specifications for another file?
- (A) Minifile (B) Microfile
(C) Masterfile (D) Metafile
143. Which among the following was the largest social networking site in the world in early 2000s?
- (A) OurSpace (B) Sharespace
(C) MySpace (D) Orkut
144. Third generation computers emerged due to the development of which of the following technology?
- (A) Semiconductor (B) VLSI
(C) Vacuum tubes (D) Integrated circuits
145. Which is a type of malicious code or software that looks legitimate but can take control of your computer?
- (A) Trojan horse (B) Worm
(C) Virus (D) Time bomb
146. In windows computer, which among the following acts a 'holding bay' for deleted items, such as files and folders?
- (A) Recycle bin (B) Junk
(C) Spam (D) Draft
147. Which one of the following is NOT a High-level Language (HLL)?
- (A) JAVA (B) BASIC
(C) Assembly language (D) FORTRAN
148. _____ is an error in the source code of a program that can be pointed out by the Compiler.
- (A) Logical errors (B) Semantic errors
(C) Syntax errors (D) Runtime errors
149. Which among the following is the pictorial representation that depicts a process, system or computer algorithm?
- (A) Algorithm (B) Loop
(C) Array (D) Flowchart
150. A small piece of software that is used to remove a bug, within an operating system or software program is called as_____.
- (A) Stack (B) Version
(C) Patch (D) Index

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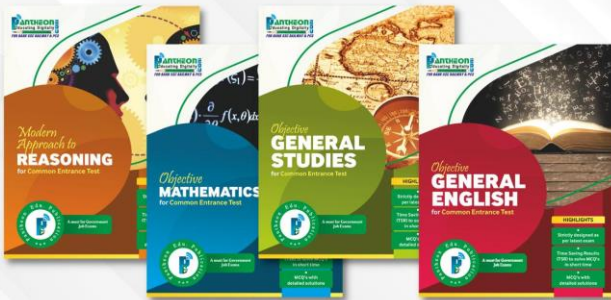
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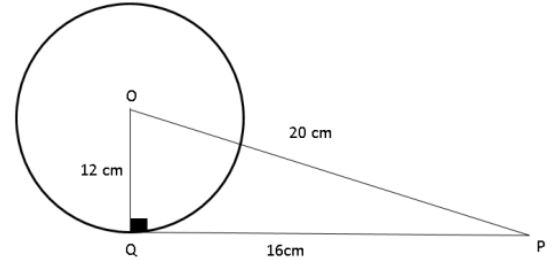
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Mathematical Abilities

- Answer: (A)**
 The total distance it travels would be given by the infinite sum of the series:
 $100 + 2 [100 \times (4/5) + 100 \times (4/5)^2 + 100 \times (4/5)^3 \dots]$
 $100 + 160 \times [1/(1 - 4/5)] = 100 + 160 \times 5 = 900$ meters
 Hence, option a.
- Answer: (B)**
 Let total work be 200 units (LCM of 25 and 40).
 Efficiency of A = $200/25 = 8$ units per day
 And, efficiency of B = $200/40 = 5$ units per day
 Total work done in first 3 days = $8 + 5 = 13$ units
 In 45 days, $13 \times 15 = 195$ units were done.
 On 46th day, B works and completes it in the 46th day.
 So, total time taken = 46 days
 Hence, option b.
- Answer: (B)**
 Let the four numbers be A, B, C and D respectively.
 According to question;
 $3A + B + C + D = 3 \times 348 = 1044$ ---(1)
 $3B + C + D + A = 3 \times 380 = 1140$ -----(2)
 $3C + D + A + B = 3 \times 420 = 1260$ -----(3)
 $3D + A + B + C = 3 \times 364 = 1092$ -----(4)
 Adding (1), (2), (3) and (4), we get
 $6 \times (A + B + C + D) = 4536$
 $A + B + C + D = 756$
 So, we get A = 144, B = 192, C = 252 and D = 168
 Hence, option b.
- Answer: (A)**
 Selling price of the article = $1.25 \times 900 = \text{Rs. } 1125$
 Marked price of the article = $1125/0.90 = \text{Rs. } 1250$
 Hence, option a.
- Answer: (D)**
 Let us assume that the price of wheat be Rs. 'x' and the quantity be 'y' kg.

	Price	Quantity	Total Expenditure
Original	x	y	270
Changed	0.9x	y + 5	270

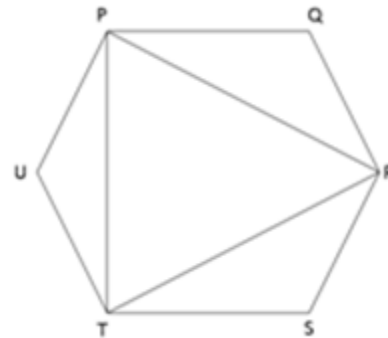
According to question;
 $x \times y = 270$ (i)
 And, $0.9x \times (y + 5) = 270$ (ii)
 By solving equation (i) and (ii), we get
 $x = 6$
 So, the changed price would be equal to 5.4
 So, the difference between the original and reduced price is 60-paise.
 Hence, option d.
- Answer: (C)**
 Let Rajiv took a loan of Rs. 'x' from the bank.
 According to question;
 $1.12 \times (1.2544 \times x - 5197) = 1204$
 $1.2544 \times x - 5197 = 1075$
 $1.2544 \times x = 6272$
 So, x = 5000
 Hence, option c.
- Answer: (B)**
 Area of the rectangle = $8 \times 2 = 16 \text{ cm}^2$
 In triangle DEH and triangle BEG:
 Angle EDH = angle EBG
 Angle DEH = angle BEG
 DE = BE
 So, triangle DEH is congruent to triangle BEG. (AAS rule)
 Similarly, and triangle HEC is congruent triangle AEG.
 So, the area of the shaded region is equal to the sum of area of triangle DEH and triangle AEG which one-fourth of total area of the rectangle = $1/4 \times 16 = 4 \text{ cm}^2$
 Hence, option b.
- Answer: (B)**



Since, PQ is a tangent to the circle, and the distance between them is 20 cm.
 Radius of the circle can be calculated using Pythagoras theorem
 So, $OP^2 = QP^2 + OQ^2$
 $400 = 256 + OQ^2$
 $OQ^2 = 144$
 $OQ = 12 \text{ cm}$
 Hence, option b.

- Answer: (A)**
 Let the dimensions of the rectangular prism be x cm, y cm and z cm.
 So, areas of separate faces are $xy \text{ cm}^2$, $xz \text{ cm}^2$ and $yz \text{ cm}^2$
 So, $(xy) \times (xz) \times (yz) = (xyz)^2$
 $35 \times 56 \times yz = 280 \times 280$
 So, $yz = (280 \times 280)/(35 \times 56) = 40 \text{ cm}^2$
 The surface area = $2 \times (35 + 56 + 40) = 2 \times 131 = 262 \text{ cm}^2$
 Hence, option a.

- Answer: (A)**



In regular hexagon PQRSTU, length of each side is 20 cm.
 So, the length of PT = $20\sqrt{3} \text{ cm}$
 So, the largest equilateral triangle will be of the side of length $20\sqrt{3} \text{ cm}$
 Desired area = $\sqrt{3}/4 \times 20\sqrt{3} \times 20\sqrt{3} = 300\sqrt{3} \text{ cm}^2$
 Hence, option a.

- Answer: (A)**
 $[\sec x(1 - \sin x)(\sin x + \cos x)(\sec x + \tan x)]/[\sin x(1 + \tan x) + \cos x(1 + \cot x)]$
 $= [\sec x(1 - \sin x)(\sin x + \cos x)(\sec x + \tan x)]/[\sin x(1 + \sin x/\cos x) + \cos x(1 + \cos x/\sin x)]$
 $= [\sec x(1 - \sin x)(\sin x + \cos x)(\sec x + \tan x) \times \sin x \cos x]/[(\sin^2 x + \cos^2 x)(\sin x + \cos x)]$
 $= \sin x \cos x$
 Hence, option a.
- Answer: (A)**
 For cubic equation; $x^3 - 3x^2 + 4x + 2 = 0$
 Roots = p, q and r
 Sum of the roots = $p + q + r = 3$(i)
 Product of the roots = $p \times q \times r = -2$ (ii)
 Sum of product of two roots at a time;
 $pq + qr + pr = 4$ (iii)
 Dividing equation (iii) by equation (ii) we get
 $(pq + qr + pr)pqr = -4/2 = -2$
 $1/p + 1/q + 1/r = -2$
 Hence, option a.
- Answer: (A)**

Desired Ratio = (768 + 576):(704 + 832) = 1344:1536 = 7:8

Hence, option a.

14. **Answer: (A)**

Desired Percentage = [(512 + 864 - 960)/960] × 100 = 43.33%

Hence, option a.

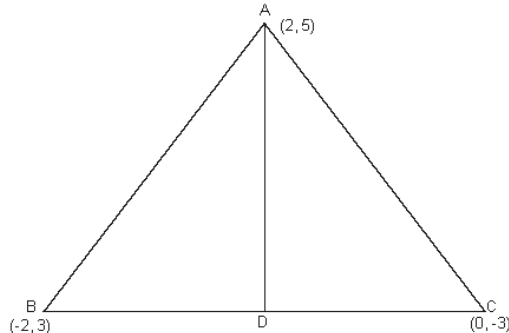
15. **Answer: (B)**

Desired Average = [(512 + 576 + 864) - (704 + 384 + 832)]/3 = 32/3 kg

Hence, option b.

16. **Answer: (C)**

According to the question,



Therefore,

D is the mid-point of BC, then its co-ordinates are $\{(-2 + 0)/2\}, \{(-3 + 3)/2\} = D(-1, 0)$

For line AD,

The equation of the line can be given as: $\{(y - y_1)/(y_2 - y_1)\} = \{(x - x_1)/(x_2 - x_1)\}$

Or, $(y - 5)/(0 - 5) = (x - 2)/(-1 - 2)$

Or, $5x - 3y + 5 = 0$

Hence, option c.

17. **Answer: (B)**

$\{(x - 5)/(x^2 + 2x - 35)\} > 0$

Or, $\{(x - 5)/(x^2 + 7x - 5x - 35)\} > 0$

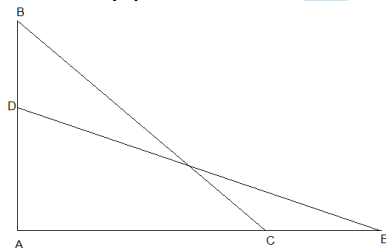
Or, $\{(x - 5)/(x + 7)(x - 5)\} > 0$

Therefore, Inequality is true for $x \in (-7, 5) \cup (5, 0)$

Least integer satisfying the inequality is '-6'

Hence, option b.

18. **Answer: (B)**



According to the question,

BC is the ladder whose length is 3.8 metres

AC is distance between foot of the wall and foot of the ladder = 3.2 metres

BD is distance by which the ladder slipped = 0.6 metres

In right angle triangle ABC

$BC^2 = AB^2 + CA^2$ [Using Pythagoras Theorem]

$(3.8)^2 = (AD + BD)^2 + (3.2)^2$

$14.44 = (AD + 0.6)^2 + 10.24$

$(AD + 0.6)^2 = 14.44 - 10.24 = 4.2$

$AD + 0.6 = 2.04$

$AD = 2.04 - 0.60 = 1.44$

Now, in right angle triangle ADE,

$DE^2 = AD^2 + EA^2$

$(3.8)^2 = (1.44)^2 + (3.2 + EC)^2$

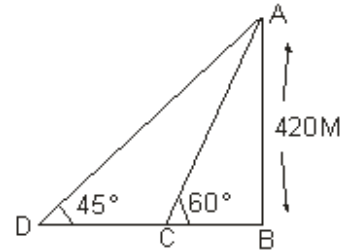
$14.44 = 2.07 + (3.2 + EC)^2$

$\sqrt{12.37} = 3.2 + EC$

$EC = 3.51 - 3.20 = 0.31$ metres

Hence, option b.

19. **Answer: (A)**



Let AB represent the cliff of height 420 m and C, D represent the two positions of the boat

In triangle ABC

$\tan 60^\circ = (AB/BC)$

Or, $BC = 420/\sqrt{3}$

Also, in triangle ABD,

$\tan 45^\circ = AB/BD$

Or, $BD = AB = 420$ m

Distance covered = $CD = BD - BC$

$= 420 - (420/\sqrt{3}) = \{420(\sqrt{3} - 1)/\sqrt{3}\}$ metres

Speed = 6 km/h = $(6 \times 1000)/60$ m/min = 100 m/minute

We know that,

Time = Distance/Speed = $\{420(\sqrt{3} - 1)/\sqrt{3}\} \div 100 = 1.77 \sim 2$ min (Taking $\sqrt{3} = 1.732$)

Hence, option a.

20. **Answer: (A)**

$a^3 + b^3 + c^3 - 3abc = (a + b + c) \times (1/2) \times \{(a - b)^2 + (b - c)^2 + (c - a)^2\}$

So, required value = $(997 + 998 + 999) \times (1/2) \times \{(997 - 998)^2 + (998 - 999)^2 + (999 - 997)^2\}$

$= 2994 \times (1/2) \times \{1 + 1 + 4\}$

$= 2994 \times 3 = 8982$

Hence, option a.

21. **Answer: (C)**

Area of four walls = $2 \times (\text{length} + \text{width}) \times \text{height}$

Area of four walls = $2 \times (12 + 6) \times 8 = 16 \times 18 = 288$ m²

Cost of painting the walls of the room = $(288/12) \times 100 =$ Rs. 2400

Hence, option c.

22. **Answer: (D)**

Mean proportional of '4' and '9' = $\sqrt{4 \times 9} = \sqrt{36} = 6$

And, fourth proportional of '3', '5' and '6' = $\{(5 \times 6)/3\} = 10$

Required ratio = 6:10 = 3:5

Hence, option d.

23. **Answer: (A)**

Let the quotient obtained when the said number is divided by 754 be 'x'

Therefore, number = $754x + 17 = (754x + 13 + 4)$

Remainder obtained when the given number is divided by 17 = $(754x + 13 + 4)/13$

Since, '754x + 13' is completely divisible by '13'. So, remainder = 4

Hence, option a.

24. **Answer: (B)**

Let the sum invested be Rs. 'S'.

Time period of investment = $(11/4)$ years = 2 years and 9 months

Effective rate of interest for 9 months = $(9/12) \times 20 = 15\%$

ATQ;

$9936 = S \times 1.20 \times 1.20 \times 1.15$

Or, $9936 = S \times (1.44) \times (1.15)$

So, $S = 6000$

Therefore, the sum invested = Rs. 6,000.

Hence, option b.

25. **Answer: (B)**

Let marked price of the article be Rs. '5x'

Then, cost price of the article = $(4/5) \times 5x =$ Rs. '4x'

Selling price of the article = $(0.88 \times 5x) =$ Rs. '4.4x'

ATQ;

$4.4x - 4x = 40$

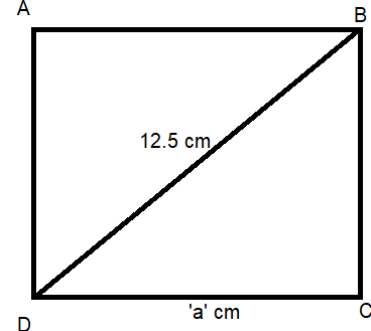
Or, $0.4x = 40$
 Or, $x = 100$
 Cost price of the article = $4x = 4 \times 100 = \text{Rs. } 400$
 Marked price of the article = $5x = 5 \times 100 = \text{Rs. } 500$
 Hence, option b.

26. **Answer: (B)**

$$\begin{aligned} & \sqrt{41 + 12\sqrt{5}} \\ &= \sqrt{41 + 2 \times 6 \times \sqrt{5}} \\ &= \sqrt{36 + 5 + 2 \times 6 \times \sqrt{5}} \\ &= \sqrt{(6 + \sqrt{5})^2} \\ &= (6 + \sqrt{5}) \end{aligned}$$

Hence, option b.

27. **Answer: (C)**



Let side of square ABCD = 'a' cm
 Length of diagonal 'BD' = $a\sqrt{2}$ cm
 So, $a\sqrt{2} = 12.5$
 Or, $a = (12.5/\sqrt{2})$
 Area of square ABCD = $(a^2) = (6.25\sqrt{2})^2 = 78.125 \text{ cm}^2$
 Hence, option c.

28. **Answer: (A)**

$$\begin{aligned} & \cot 10^\circ \times \cot 200^\circ \times \cot 60^\circ \times \cot 80^\circ \times \cot 70^\circ \\ &= \cot 10^\circ \times \cot(180^\circ + 20^\circ) \times \cot 60^\circ \times \cot(90^\circ - 10^\circ) \times \cot(90^\circ - 20^\circ) \\ &= \cot 10^\circ \times \cot 20^\circ \times \cot 60^\circ \times \tan 10^\circ \times \tan 20^\circ \\ &\text{Using, } \cot x \times \tan x = 1 \\ &= \cot 60^\circ = (1/\sqrt{3}) \end{aligned}$$

Hence, option a.

29. **Answer: (B)**

Let initial income of Rakesh = Rs. '100x'
 Initial expenditure of Rakesh = $0.50 \times 100x = \text{Rs. } '50x'$
 So, initial savings of Rakesh = $(100 - 50x) = \text{Rs. } '50x'$
 Increased income of Rakesh = $1.20 \times 100x = \text{Rs. } '120x'$
 Increased expenditure of Rakesh = $1.08 \times 50x = \text{Rs. } '54x'$
 Increased savings of Rakesh = $(120x - 54x) = \text{Rs. } '66x'$
 Percentage increased in savings = $\{(66x - 50x)/50x\} \times 100 = 32\%$
 Hence, option b.

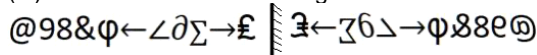
30. **Answer: (B)**

Let the height of the trapezium be 'h' cm
 Area of trapezium = $(1/2) \times \text{sum of length of its parallel sides} \times \text{height}$
 So, $\{(4 + 8) \times h\}/2 = 9$
 Or, $h = 18/12 = 1.50$
 So, height of trapezium = 1.50 cm
 Hence, option b.

Reasoning and General Intelligence

31. **Answer: (C)**

(C) is the correct mirror image.



32. **Answer: (B)**

B gives the correct pattern that will be obtained on unfolding the given cut paper.

33. **Answer: (A)**

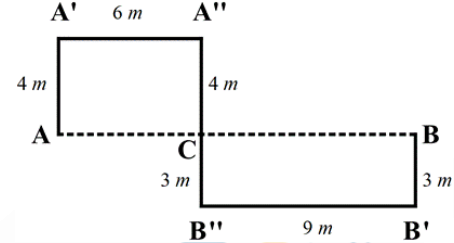
$$\begin{aligned} & 2^2 + 7^2 = 53 \\ & 8^2 + 4^2 = 80 \\ & 9^2 + 6^2 = 117 \end{aligned}$$

34. **Answer: (D)**

$E+3=H$
 $G+4=K$
 $I+5=N$
 $K+6=Q$
 So for JLNP
 $J+3=M$
 $L+4=P$
 $N+5=S$
 $P+6=V$

35. **Answer: (B)**

From the directions, we get,



Here, $A''C = 4 \text{ m.}$
 $BB' = B''C = (AC)/2 = 6/2 = 3 \text{ m.}$
 Hence, the difference of distances walked by both = $(3 + 3 + 9) - (6 + 4 + 4) = 15 - 14 = 1 \text{ m.}$

36. **Answer: (D)**

K's father G is A's brother.
 A, who is a male, has only one sibling.
 We get,
 G (m) ——— A (m)
 ↓
 K (m/f)
 M, who is A's sister-in-law, is R's daughter.
 And, K is granddaughter of R.
 Hence, R must be the parent of either G or K's mother.
 Thus, M is G's wife and K's mother.
 R (m/f)
 ↓
 M (f) = G (m) ——— A (m)
 ↓
 K (f)

T has two sons only.
 Hence, T is parent of G and A.
 R (m/f) T (m/f)
 ↓ ↙ ↘
 M (f) = G (m) ——— A (m)
 ↓
 K (f)

Thus, M is daughter-in-law of T.

37. **Answer: (D)**
 cure and heal = 2 1 9
 heal the scar = 5 0 9
 heal = 9

So, the code for 'heal' is '9'.

38. **Answer: (B)**
 RETAIN has six letters - $(6 \times 6) - (6 + 6) = 36 - 12 = 24$.
 BESIDES has seven letters - $(7 \times 7) - (7 + 7) = 49 - 14 = 35$.
 PROCEDURE has nine letters - $(9 \times 9) - (9 + 9) = 81 - 18 = 63$.
 Similarly,
 GIVEN has five letters - $(5 \times 5) - (5 + 5) = 25 - 10 = 15$.

Alternate solution:

RETAIN has six letters - $6 \times 4 = 24$
 BESIDES has seven letters - $7 \times 5 = 35$
 PROCEDURE has nine letters - $9 \times 7 = 63$

Similarly,
 GIVEN has five letters - $5 \times 3 = 15$

39. **Answer: (A)**
 After interchanging, we get:
 $120 \div 3 + 11 \times 4 - 14 = 100 - 15 \times 26 \div 13$
 LHS = $120 \div 3 + 11 \times 4 - 14$
 = $40 + 44 - 14$
 = 70
 RHS = $100 - 15 \times 2$
 = $70 = \text{LHS}$.

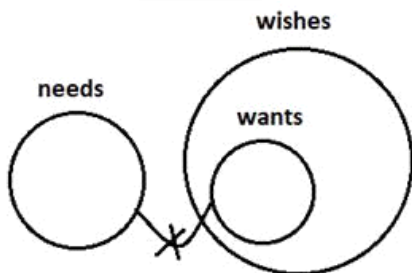
40. **Answer: (D)**
 17 September, 2012 = (2011 years + Period from 1/1/2012 to 17/9/2012)
 No. of odd days in 400 years = 0
 Therefore,
 No. of odd days in 2000 years = 0
 11 years = 9 ordinary years + 2 leap years (as leap year occurs every four years)
 No. of odd days in 11 years = $9 \times 1 + 2 \times 2 = 13$
 2012 was a leap year.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
31	29	31	30	31	30	31	31	17

$31 + 29 + 31 + 30 + 31 + 30 + 31 + 31 + 17 = 261$ days
 261 days = 37 weeks + 2 days = 2 odd days
 Total number of odd days = $0 + 13 + 2 = 15 = 7 \times 2 + 1 = 1$ odd day
 So, the given day was a Monday.

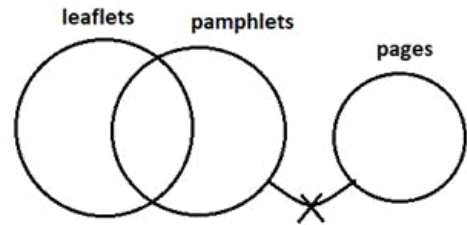
41. **Answer: (D)**
 Every face is adjacent to four other faces in a cube.
 In the given combinations, 6 is adjacent to u, 8, s and t. Hence, '4' will be on the bottom face if '6' is at the top of the cube.

42. **Answer: (A)**
 All wants are wishes. No need is a want.



Some wishes are not needs is true as no need is a want. So, I follows.
 No need is a wish is not definitely true. So, II does not follow.

43. **Answer: (D)**
 Some leaflets are pamphlets. No pamphlet is a page.



All pamphlets are leaflets is a possibility but not a definite truth. So, I does not follow.
 No page is a leaflet can be true. Some leaflets are pages can be true. So, either II or III follows.

44. **Answer: (C)**
 B _ _ _ _ H _ _ _ _ N _ _ _ _ T _ _ _ _ Z
 E _ _ _ I _ _ _ M _ _ _ Q _ _ _ U
 F _ _ _ J _ _ _ N _ _ _ R _ _ _ V
 NMN is the missing term.

45. **Answer: (C)**
 $12+6 = 18$, sum of digits = $1+8 = 9$
 $56+2 = 58$, sum of digits = $5+8 = 13$
 Similarly,
 $17+8 = 25$, sum of digits = $2+5 = 7$

46. **Answer: (D)**
 Only two boxes are larger than black one.
 White is larger than green.
 Black is smaller than both green and white ones.
 We get,
 _____ < _____ < _____ < black < green < white
 Red is larger than at least two boxes.
 Orange is smaller than red and yellow.
 We get,
 Orange < yellow < Red < black < green < white

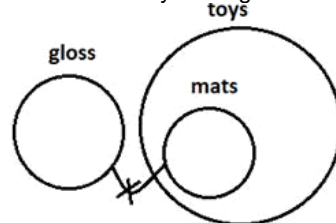
47. **Answer: (C)**
 Option (c) is odd as it doesn't follow the same logic as followed by other three options.
 $8^2 + 6 = 64 + 6 = 70$
 $13^2 + 6 = 169 + 6 = 175$
 $11^2 + 6 = 121 + 6 = 127$

48. **Answer: (B)**
 Most of the athletes are swimmers and some swimmers are artists. So, some athletes may or may not be an artist. (I) cannot be concluded for sure.
 Since most of the athletes are swimmers, some swimmers are definitely athletes. So, (II) can be concluded. Hence, (b) is the correct choice.

49. **Answer: (C)**
 Accident-Injury-physiotherapist-prescription-medicine-rest.
 50. **Answer: (D)**
 There are _____ (eight) positions.
 O is shifting three places to the left, then two places to the right, then again three places to the left, and so on.
 So, the next term is: BOBBBBBB (shifting 3 places to the left from BBBBOBBB).

51. **Answer: (A)**
 A's position from front = 56
 Total = 110
 A's position from end of queue = $110 - 56 + 1 = 55^{\text{th}}$ from the end.

52. **Answer: (B)**
 All mats are toys. No gloss are mats.



Some toys are mats is true. So, I follows.
 Some toys are not gloss is true as no mat is gloss.
 So, II follows.
 Hence, both I and II follow.

53. **Answer: (D)**

It may be easier to move goods from foreign countries to India than to move them from state to state within the country, but nothing can be inferred about the investment by foreign firms from the above two statements. Hence, (d) is the correct choice.

54. **Answer: (D)**

C(3)- F(6)- I(9) consecutive multiples of 3.
 E(5)-J(10)-O(15) consecutive multiples of 5.
 B(2)-D(4)-F(6) consecutive multiples of 2.

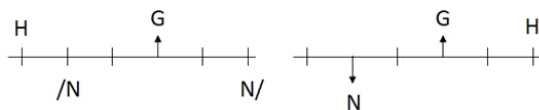
D(4)-H(8)-P(16)

55. **Answer: (A)**

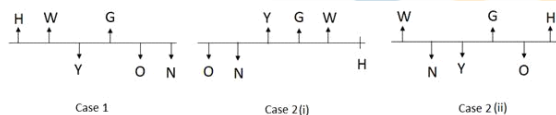
The sisters are facing north while the brothers are facing south. Two persons are sitting to the right of G. G is not the brother of W. G is not facing South direction. So, G must be the sister of W. Hence, G is not facing south direction, so it should be facing the north.



H is sitting at one of the corners. One person is sitting in between N and G who are facing toward opposite directions.



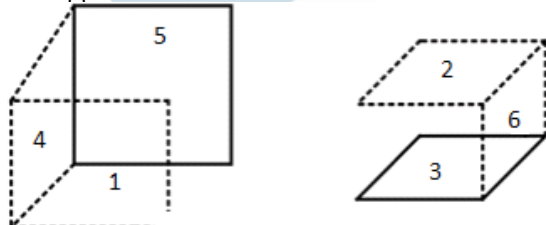
O is sitting second to the left of Y. O is facing south. W is sitting to the immediate right of her brother. So, W is a female.



Y is adjacent to neither H nor N. So, cases 2(i) and 2(ii) are invalid. H, W and G is the set of sisters.

56. **Answer: (B)**

1 is opposite to 5
 2 is opposite to 3
 6 is opposite to 4



57. **Answer: (D)**

Wabash > Wackily > Wagged > Waggon > Wagner is the correct form as per the order in dictionary.

58. **Answer: (D)**

From the matrix, we have G = 01,13,20,34,42
 R = 02,11,24,30,43
 A = 56,68,75,89,97
 V = 58,65,79,87,96
 E = 59,66,77,85,98
 L = 04,12,23,31,40

Only the option 42,24,75,58,59,23 has the codes of the letters in the same sequence.

59. **Answer: (C)**

Let Kritika is n years older than Shikha. Then,
 Kritika = n + Shikha = Mukul - n
 Kritika + Shikha + Mukul = 63...(i)
 And, Mukul = 39 - 11 = 28
 Then, Kritika = 28 - n
 And, Shikha = 28 - n - n = 28 - 2n
 Now, equation (i) becomes,
 28 - n + 28 - 2n + 28 = 63
 n = 7

Therefore, difference between present ages of Mukul and Shikha
 = 28 - 28 - 2n
 = 2n
 = 2 * 7
 = 14 years

60. **Answer: (B)**

The century divisible by 400 is a leap year and the year (other than century) divisible by 4 is a leap year.
 3402 is not divisible by 4.
 3156 is divisible by 4, hence a leap year.
 3398 is not divisible by 4.
 3262 is not divisible by 4.
 So, 3156 will be a leap year.

English Language and Comprehension

61. **Answer: (A)**

(a) is right answer. Replace FEW with LITTLE. FEW is used to modify countable nouns such as houses, books, etc. while LITTLE is used to modify uncountable nouns such as knowledge, wisdom, etc. Here, the noun 'money' is uncountable so LITTLE will be used.

62. **Answer: (D)**

All except D are mentioned in the passage. Refer to the lines: "It is now used in everything from sporting equipment—tennis rackets, Formula 1 cars, boating sails—to personal protective equipment like bulletproof vests." Thus, (d) is the right answer.

63. **Answer: (A)**

Refer to the line: "Artificial spider silk, the researchers suggested, could make for a lighter, stronger and more breathable body armor than even Kevlar." Thus, (a) is the right answer.

64. **Answer: (C)**

Refer to the lines: "As battlefields grew farther apart and cannon fire spelled imminent death, and as the fighting grew less personal and more distanced (like the relationship between the men who called the orders to those who marched to them), men wore metal plates over their uniforms and donned metal helmets to protect against gunfire. These plates were placed over the heart, which often beat with a fear that was hardly aided by the presence of a thin metal sheet and, later, a tightly-woven polymer simply known as Kevlar." Thus, (c) is the right answer.

65. **Answer: (D)**

All except D are true. Refer to the lines: "Kevlar, or light and ultra-strong plastic polymers that are tightly woven into a flexible fabric, became popular after its discovery and implementation in the 1960s." Thus, (d) is the right answer.

66. **Answer: (A)**

Refer to the lines: "Two years ago, researchers at the Air Force Research Laboratory announced that they would be looking into an age-old fiber to more fully explore its cooling and temperature regulation properties, and its use toward strengthening current synthetic fibers." Thus, (a) is the right answer.

67. **Answer: (D)**

Refer to the line: "Unlike the Maya, Aztecs and Inca, the Calusa built their kingdom, which stretched from

modern Tampa Bay to Ten Thousand Islands and as far east as Lake Okeechobee, without agriculture.” Thus, (d) is the right answer.

68. **Answer: (A)**

All except A are mentioned in the passage as a feature of the Calusa empire. Refer to the lines: “Beginning roughly 2,000 years ago, the Calusa enjoyed centuries of dominance as the undisputed rulers of southwest Florida. Theirs was a complex society with trade routes spanning hundreds of miles; a powerful military; and built works including wide canals, islands made of shells and towering buildings.” Thus, (a) is the right answer.

69. **Answer: (B)**

Refer to the passage: “Now, a new study published in the Proceedings of the National Academy of Sciences reveals details of how the Calusa stockpiled live fish in massive holding pens, or “watercourts,” built out of oyster shells.” Thus, (b) is the right answer.

70. **Answer: (D)**

All except D are true as per the passage. Refer to the passage: “Now, a new study published in the Proceedings of the National Academy of Sciences reveals details of how the Calusa stockpiled live fish in massive holding pens, or “watercourts,” built out of oyster shells...The remains of these watercourts—the largest of which is seven times larger than an NBA basketball court—are located near Fort Myers in Mound Key, where the Calusa’s capital city of Calos stood for 500 years...Bones and scales excavated from the ancient holding pens belonged to mullet, pinfish and herring, all schooling species that might have been easily herded inside.” Thus, (d) is the right answer.

71. **Answer: (A)**

Refer to the passage: “The watercourts could also have been an innovation prompted by a drop in sea level that occurred around 1250, potentially impacting “fish populations enough to help inspire some engineering innovation,” says Karen Walker, study co-author and an archaeologist at the Florida Museum, in a statement.” Thus, (a) is the right answer.

72. **Answer: (C)**

Refer to the lines: “Abu Hureyra is an important archaeological site in Syria, known for artifacts documenting early adoption of agriculture in the region.” Thus, (c) is the right answer.

73. **Answer: (C)**

Refer to the lines: “The researchers think that upon entering Earth’s atmosphere, the already-fractured comet likely broke up into several more pieces, many of which didn’t reach the ground. Instead, they produced a string of explosions in the atmosphere known as airbursts.” Thus, (c) is the right answer.

74. **Answer: (A)**

Refer to the lines: “During the excavation, archaeologists realized that there were really two sites, one on top of the other. The first was a Paleolithic settlement of hunter-gatherers, and the second was a farming town, with new buildings of a different style.” Thus, (a) is the right answer.

75. **Answer: (B)**

Refer to the lines: “A new analysis of samples of soil and artifacts salvaged from the original excavation has revealed a surprising finding: The Paleolithic village at Abu Hureyra was indirectly hit and destroyed by fragments of a comet that slammed into Earth about 12,800 years ago.” Thus, (b) is the right answer.

76. **Answer: (D)**

All except D are false. Refer to the lines: “The site, now under the waters of Lake Assad, was quickly

excavated between 1972 and 1973 before construction of the Tabqa Dam flooded the area. During the excavation, archaeologists realized that there were really two sites, one on top of the other. The first was a Paleolithic settlement of hunter-gatherers, and the second was a farming town, with new buildings of a different style.” This confirms that A, B and C are true.

Refer to the lines: “It may also be recognized as the only known human settlement to have been hit by a fragment of a comet.” This confirms that (d) is false, which makes it the right answer.

77. **Answer: (B)**

(b) is the right answer. Irreverence means a lack of respect for people or things that are generally taken seriously.

Restive- (of a person) unable to remain still, silent, or submissive, especially because of boredom or dissatisfaction.

Avarice- extreme greed for wealth or material gain.

Amity- friendly relations.

78. **Answer: (C)**

(c) is the right answer.

Chutzpah-Extreme self-confidence or audacity (usually used approvingly)

Chronic-Illness persisting for a long time or constantly recurring

Citation-Quotations from or references to a book, paper, or author, especially in a scholarly work

79. **Answer: (A)**

The correct spelling of the word is ANXIOUS, and it means worried. Thus, (a) is the right answer.

80. **Answer: (D)**

RUN OUT (to be short of) will fit here as the sentence tells us how the group is short of money. Thus, (d) is the right answer.

Run after - chase. Run into - encounter. Run over - collide.

81. **Answer: (B)**

(b) is the right answer. Replace GOT with GET. Modal verbs (COULD) are followed by verbs in their base form.

82. **Answer: (B)**

The sentence is in active voice and in past perfect tense (HAD SANITISED). Follow the rules below to convert a sentence in the indicative mood to passive voice:

1. The subject clause will become the object clause. Here, the subject THE AUTHORITIES will change to the object of the verb, and the object THE PARK BENCHES will change into the subject and begin the sentence.

2. Replace HAD PROCURED with HAD BEEN SANITISED. The passive voice construction for past perfect tense is “HAD + BEEN + past participle”.

83. **Answer: (A)**

We need a noun to be modified by the adjective HUMBLEST. ABODE (dwelling) will fit here as the sentence tells us how from the humblest dwelling to the most lavish mansion, our homes have been a respite from the world. Thus, (a) is the right answer.

Abide (verb) - adhere to. Adept (adjective) - skilled. Adopt (verb) - embrace.

84. **Answer: (C)**

We need a past participle form verb here to fit in the passive voice clause. UPENDED (turned upside down) will fit here as the sentence tells us how the quarantine has turned our lives upside down. Thus, (c) is the right answer.

Averted - prevented. Apprised - informed. Undertaken - tackled.

85. **Answer: (B)**

We need a base form verb to follow the modal verb MIGHT. SURPRISE (astonish) will fit here as the sentence tells us of a fact that might astonish us. Thus, (b) is the right answer.

Suppose - reckon. Command - order. Convince - persuade.

86. **Answer: (D)**

We need an adjective to modify the noun LUXURIES. UNFATHOMABLE (unimaginable) will fit here as the sentence tells us of luxuries that were unimaginable by the rulers of the past. Thus, (d) is the right answer.

Understandable - capable of being understood. Urged - convinced. Cynical - pessimistic.

87. **Answer: (A)**

We need a noun to be modified by the adjective UPPER. ECHELONS (levels) will fit here as the sentence tells us of luxuries enjoyed by the upper classes. Thus, (a) is the right answer.

Eons - ages. Aliens - extraterrestrial beings. Allures - tempts.

88. **Answer: (C)**

(c) is the right answer. The idiom BACK TO THE DRAWING BOARD means to start again because the current attempt was unsuccessful.

89. **Answer: (A)**

(a) is the right answer.

Crescendo- A gradual increase in noise

Counterfeit- Made to look like an exact copy of something in order to trick people

Demagogue- A leader or orator who espouses the cause of the common people

90. **Answer: (A)**

Option (a) is the right answer.

The sentence is in direct speech and in the interrogative mood. To convert this sentence to the indirect speech, follow these rules:

1. Remove the comma and the inverted commas.

2. Change the reporting verb SAID to ASKED. The preposition TO is redundant after ASKED, so it will be removed. Begin the indirect speech sentence with the reporting speech clause I ASKED HER.

3. Put IF between the reporting and reported speeches.

4. The second person subjective pronoun YOU will change to the third person subjective SHE.

5. The simple present tense DO YOU HAVE will change to the simple past SHE HAD.

6. Use the indicative mood syntax: Reporting speech clause (I ASKED HER) + preposition (IF) + Subject (SHE) + verb clause (HAD) + Object (SOME EXTRA MONEY).

91. **Answer: (C)**

The sentence is in active voice and in simple present tense (face). Follow the rules below to convert a sentence in the indicative mood to passive voice:

1. The subject clause will become the object clause. Here, the subject (THE COUNTRIES) will change to the object of the verb, and the object (A LOT OF RAINFALL) will change into the subject and begin the sentence.

2. Replace FACE with IS FACED. The passive voice construction for simple present tense is "is/ are + past participle".

3. Add the conjunction BY before THE COUNTRIES to link the verb with its object.

Option (c) is the right answer.

92. **Answer: (B)**

(b) is the right answer. 1-RSQP-6 is the correct sequence. (1) begins the passage by establishing the context: OPERA. It tells us that OPERA is a dramatic art form. R follows (1). It tells us about the origin of OPERA. S and Q form a pair. S tells us that OPERA involves the display of emotional content to the

audience as through music and lyrics. Q compares OPERA and MUSICAL THEATER. P and (6) form a pair too. P tells us about the elements that are common between THEATER and OPERA. (6) begins with the conjunction HOWEVER, which is used to link contrasting statements. It tells us that the words in the opera are sung rather than spoken.

93. **Answer: (C)**

(c) is the right answer. The idiom ONCE IN A BLUE MOON means very rarely.

94. **Answer: (A)**

Option (a) is the right answer.

The sentence is in direct speech and in the indicative mood. To convert this sentence to the indirect speech, follow these rules:

1. Remove the comma and the inverted commas.

2. Begin the indirect speech sentence with the reporting speech clause THE BOY SAID.

3. Put THAT between the reporting and reported speeches.

4. The first person subjective pronoun I and possessive pronoun MY will change to the third person subjective HE and possessive HIS respectively.

5. The modal verb WILL will change to WOULD. Modal verbs such as will, would, can, etc. always take the base form of the main verb, so GO will remain unchanged.

95. **Answer: (C)**

GO FOR (choose) will fit here as the sentence tells us what kind of meat products to choose. Thus, (c) is the right answer.

Go off - explode. Go out - leave. Go into - enter.

96. **Answer: (C)**

DORMANT-temporarily inactive. ACTIVE is the antonym.

ILLICIT-forbidden by law, rules, or custom; MILD- not severe, serious, or harsh; RIGID-unable to bend or be forced out of shape; not flexible.

97. **Answer: (B)**

Option (b) is the right answer.

The sentence is in direct speech and in the indicative mood. To convert this sentence to the indirect speech, follow these rules:

1. Remove the comma and the inverted commas.

2. Begin the indirect speech sentence with the reporting speech clause THE WOMAN SAID.

3. Put THAT between the reporting and reported speeches.

4. The first person subjective pronoun I will change to the third person subjective SHE.

5. Replace the simple past tense WENT TO THE STORE AFTER THE MOVIES with the past perfect HAD GONE TO THE STORE AFTER THE MOVIES.

98. **Answer: (A)**

We need a noun to be modified by the adjective GREAT. SOURCES (origins) will fit here as the sentence tells us how the caves are one of Africa's greatest sites where fossils have been found. Thus, (a) is the right answer.

Spurs - pushes. Surmises - speculates. Spears - a long pointed weapon.

99. **Answer: (C)**

We need a noun here to form the subject of the verb BEGAN. EXCAVATIONS (the act of digging up something in search of fossils or remains) will fit here as the sentence tells us of the species discovered during the digs. Thus, (c) is the right answer.

Expirations - terminations. Excitement - intrigue. Expeditions - trips.

100. **Answer: (B)**

We need a gerund to form the object of the preposition BY. MEASURING (calculating) will fit here

as the sentence tells us how the decay of radioactive elements is calculated to date the fossils. Thus, (b) is the right answer.

CALCULATION is a noun. Ensuring - making sure of something. Seizing - grabbing.

101. **Answer: (C)**

We need a past participle form verb to fit in the present perfect tense construction HAVE + VERB. COLLAPSED (fallen) will fit here as the sentence tells us how the older fossil-filled sections have fallen into lower areas. Thus, (c) is the right answer.

DESCENT is a noun. Categorized - sorted. Conspired - plotted secretly.

102. **Answer: (D)**

We need a verb here to link the subject and the object. DEFIES (goes against) will fit here as the sentence tells us how the landscape does not favour easy reconstruction. Thus, (d) is the right answer.

Denigrates - criticises. Divides - fragments. Deploys - makes use of.

103. **Answer: (B)**

(B) is the right answer. 1-QRSP-6 is the correct sequence. (1) establishes the subject of the passage: STEVE. It tells us that Steve was born in Tokyo in 1950. Q follows (1). It tells us that he moved to LONDON with his parents when he was 5 years old. R follows Q. The pronoun THERE tells us that the sentence talks about LONDON. It tells us that Steve started going to school in London. S follows R. It tells us that he lived in England for 2 years and then went to Jordan where he stayed for the next ten years. P follows S. It tells us that he moved to Cyprus where he took admission in the Mediterranean University. 6 tells us that he did not succeed academically so he returned to Jordan.

104. **Answer: (C)**

(c) is the right answer. LACONIC means (of a person, speech, or style of writing) using very few words. CONCISE is the synonym.

CONCEITED- excessively proud of oneself; vain.

POMP- ceremony and splendid display.

DEMENTED- behaving irrationally due to anger, distress, or excitement.

105. **Answer: (B)**

(B) is the right answer. We need an adjective to modify the noun JUDGE. The sentence seeks to convey that the criminal asked the judge to grant him parole but the judge did not listen to him and gave him a life sentence. ADAMANT fits contextually. If someone is ADAMANT about something, they are determined not to change their mind about it. ONEROUS- (of a task or responsibility) involving a great deal of effort, trouble, or difficulty.

TIMID- showing a lack of courage or confidence; easily frightened.

DAUNTLESS- showing fearlessness and determination.

General Awareness

106. **Answer: (D)**

Champa River demarcated the Mahajanpadas of Magadha and Anga.

Anga is mentioned in the Atharvaveda for the first time. Brahmadata, the last independent ruler of ancient Anga, was killed by Bimbisara.

107. **Answer: (C)**

4 minutes is the difference of time between any two consecutive longitudes.

108. **Answer: (A)**

Under Article 72 of the Constitution, the President shall have the power to grant pardons, reprieves, respites or remissions of punishment or to suspend,

remit or commute the sentence of any person convicted of any offence where the sentence is a sentence of death.

Pardon: It removes both the sentence and the conviction and completely absolves the convict from all sentences, punishments and disqualifications.

Commutation: It denotes the substitution of one form of punishment for a lighter form. For example, a death sentence may be commuted to rigorous imprisonment, which in turn may be commuted to a simple imprisonment.

Remission: It implies reducing the period of sentence without changing its character. For example, a sentence of rigorous imprisonment for two years may be remitted to rigorous imprisonment for one year.

Respite: It denotes awarding a lesser sentence in place of one originally awarded due to some special fact, such as the physical disability of a convict or the pregnancy of a woman offender.

Reprieve: It implies a stay of the execution of a sentence (especially that of death) for a temporary period. Its purpose is to enable the convict to have time to seek pardon or commutation from the President.

109. **Answer: (A)**

Champaran Satyagraha was against . Under the Tinkathiya System, tenant had to cultivate indigo on three Kathas per bigha (3/20th of the land) of his holding during a long period and was entitled to get the price for it according to written agreements.

Champaran is an area of historic significance. It was here in Champaran that Mahatma Gandhi, after his return from South Africa, tested his new weapon of Satyagraha on Indian Soil, which he had forged abroad. **Tinkathiya System**

110. **Answer: (A)**

Former foreign secretary **Nirupama Rao** has authored a new book titled "The Fractured Himalaya: How the Past Shadows the Present in India-China Relations". The book is published by Viking Press, Penguin Random.

The book depicts how the origins of the dispute between India and China form part of a living history that shapes their fractious relationship today.

111. **Answer: (A)**

Monetary policy refers to the policy of the central bank with regard to the use of monetary instruments under its control to achieve the goals specified in the Act. The **Reserve Bank of India (RBI)** is vested with the responsibility of conducting monetary policy.

112. **Answer: (D)**

Anganwadi workers have played an important role in controlling covid in **Uttar Pradesh**. So, to make their work more efficient and easier the state government has decided to provide them the smartphones.

This move will expedite the functioning of Anganwadi workers to work and will give maximum transparency in the implementation of the schemes.

113. **Answer: (C)**

The **Discovery of India** was written by India's first **Prime Minister Pandit Jawaharlal Nehru** during his imprisonment in 1942–1945 at Ahmednagar fort in the present day Indian state of Maharashtra by the colonial authorities during the British Raj before the independence of India.

Some important books written by Mahatma Gandhi are:

- Hind Swaraj or Indian Home Rule (1909)
- Satyagraha in South Africa (1924, English Translation 1928)
- An Autobiography or The Story of My Experiments with Truth (1927)
- Truth is God

- All Men are Brothers
 - Diet and Diet Reform
 - Gandhi's Autobiography- Abridged
 - Satyagraha in South Africa
114. **Answer: (C)**
Fascism was founded during World War I by **Italian national syndicalists** who drew upon both left-wing organizational tactics and right-wing political views. Italian Fascism gravitated to the right in the early 1920s.
115. **Answer: (C)**
The **Union Ministry of Information & Broadcasting** has launched '**Azadi Ki Amrit Kahaniya**', a short video series created in collaboration with **Netflix** to bring out beautiful stories of inspirational Indians on various themes including Women Empowerment, Environment & Sustainability, and others. Both have collaborated to produce the first set of videos featuring seven Women Changemakers from across India who share their experiences in breaking the glass ceiling.
Seven women change-makers:
- **Basanti Devi**, Padma-award winning environmentalist from Pithoragarh known for her contribution towards revitalizing the Kosi River.
 - **Anshu Jansenpa**, a Padma Shri awardee for being the first woman in the world to summit Mount Everest twice in five days in 2017.
 - **Harshini Kanhekar**, the first female firefighter in India, were also present at the launch.
 - **Poonam Nautiyal**, a healthcare worker who walked miles across the Bageshwar district in Uttarakhand to vaccinate everyone.
 - **Tessy Thomas**, the first woman scientist to head a missile project in India.
 - **Tanvi Jagadish**, India's first competitive woman stand-up paddleboarder.
 - **Aarohi Pandit**, the world's youngest and first woman pilot to cross the Atlantic Ocean and the Pacific Ocean solo in a light-sport aircraft.
116. **Answer: (A)**
Raleigh Commission was appointed under the presidency of Sir Thomas Raleigh on 27 January 1902 to inquire into the **condition and prospects of universities in India** and to recommend proposals for improving their constitution and working.
117. **Answer: (D)**
Union Minister for Information and Broadcasting Shri Anurag Thakur has recently inaugurated the first Himalayan Film Festival. This five-day-long festival is being organized in **Leh, Ladakh** from 24 to 28 September 2021.
Shershah is the opening feature film of the festival. The film is based on Param Vir Chakra Awardee Capt. Vikram Batra. The Director of the Shershah movie **Vishnuvardhan** and the lead actor Siddharth Malhotra have attended the inaugural session of the festival.
118. **Answer: (B)**
As per the results of Census 2011, the sex ratio of the State of Kerala is **1084**. When compared to the 2001 Census, the sex ratio has improved by 26 points. The highest sex ratio is in the Kannur district (1136) whereas the lowest sex ratio is reported in the Idukki district (1006).
119. **Answer: (D)**
Public Distribution System (PDS):
The Public Distribution System (PDS) evolved as a system of management of scarcity through the distribution of food grains at affordable prices. Over the years, PDS has become an important part of the Government's policy for the management of food economy in the country.
As the national agricultural production had grown in the aftermath of the Green Revolution, the outreach of PDS was extended to tribal blocks and areas of high incidence of poverty in the 1970s and 1980s. In June, 1997, the Government of India launched the **Targeted Public Distribution System (TPDS)** with focus on the poor.
The **Revamped Public Distribution System (RPDS)** was launched in June, 1992 with a view to strengthen and streamline the PDS as well as to improve its reach in the far-flung, hilly, remote and inaccessible areas where a substantial section of the poor live.
120. **Answer: (A)**
Victoria Memorial:
Victoria Memorial is one of the famous and beautiful monuments of Kolkata. It was built between 1906 and 1921 to commemorate Queen Victoria's 25-year reign in India. After the Sepoy Mutiny of 1857, the British government gathered the reins of control of the country directly, and in 1876 the British parliament made Victoria the Empress of India. Her reign ended with her death in 1901.
Lord Curzon, who was then the Viceroy of India, placed the question of setting up a 'stately' memorial for Queen Victoria, on her death in January 1901 to the public. The princes and people of India responded generously to his appeal for funds and Lord Curzon derived the total cost of construction of this monument amounting to one Crore, five lakhs of rupees (Rs.1,05,00,000) from their voluntary subscriptions. The Prince of Wales, King George V, laid the foundation stone on January 4, 1906 and it was formally opened to the public in 1921.
121. **Answer: (C)**
Punjab Himalayas:
Western Himalayas, also called Punjab Himalayas, westernmost section of the vast Himalayas mountain range. It lies mainly in the disputed Kashmir region of the northern Indian subcontinent—including portions administered by India and Pakistan—and also in the northwestern part of Himachal Pradesh state, India.
Nepal Himalayas:
Nepal Himalayas, east-central section and highest part of the Himalayan mountain ranges in south-central Asia, extending some 500 miles (800 km) from the Kali River east to the Tista River.
Kumaon Himalayas:
Kumaun Himalayas, west-central section of the Himalayas in northern India, extending 200 miles (320 km) from the Sutlej River east to the Kali River.
Assam Himalayas:
Assam Himalayas, eastern section of the Great Himalayas, extending eastward across Sikkim state (India) and Bhutan, into northern Assam and Arunachal Pradesh states (India), and along the border with the Tibet Autonomous Region (China).
122. **Answer: (A)**
India will host the **World Dairy Summit (WDS) 2022** in Delhi from 12th to 15th September 2022. It will be organised by the International Dairy Federation (IDF) under the theme 'Dairy for nutrition and livelihood'. This summit is going to be held after a two-year gap due to the Covid-19 pandemic.
Note: India had last hosted the International Dairy Congress in the year 1974.
123. **Answer: (D)**
Jana-Gana-Mana:
The poem was published in January 1912, under the title **Bharat Bhagya Bidhata** in the **Tatwabodhini Patrika**, which was the official publication of the Brahma Samaj with Tagore then the Editor.

124. **Answer: (D)**
Satyashodhak Samaj is a social reform society established by **Mahatma Jyotiba Phule** in Pune, India, on 24 September 1873.
Its purpose was to liberate the Shudra and Untouchable castes from exploitation and oppression.
125. **Answer: (C)**
Mount Merapi, is an active stratovolcano located on the border between Central Java and Special Region of Yogyakarta provinces, **Indonesia**. It is Indonesia's most active volcano which erupted recently.
126. **Answer: (D)**
The World Economic Outlook (WEO) is a report by the **International Monetary Fund (IMF)** that analyzes key parts of the IMF's surveillance of economic developments and policies in its member countries.
127. **Answer: (D)**
Perfect Competition:
Perfect competition is an ideal type of market structure where all producers and consumers have full and symmetric information, no transaction costs, where there are a large number of producers and consumers competing with one another.
Perfect competition is theoretically the opposite of a monopolistic market.
Since all real markets exist outside of the plane of the perfect competition model, each can be classified as imperfect.
128. **Answer: (C)**
Edward Jenner was an English physician and scientist who was the pioneer of **smallpox** vaccine, the world's first vaccine.
129. **Answer: (D)**
Frederick Sanger is the only person to have been awarded the Nobel Prize in Chemistry twice, and one of only four two-time Nobel laureates.
130. **Answer: (D)**
The marble cancer refers to the corrosion of building and statues made up of marbles by action of sulfuric acid and nitric acid. The SO₂ and NO_x present in pollution get deposited on these buildings. These oxides absorb moisture from the air and get converted into respective acids and cause corrosion.

Computer Knowledge

131. **Answer: (D)**
A **data bus** is a system within a computer or device, consisting of a connector or set of wires, that provides transportation for data.
A bus is a pathway for digital signals to rapidly move data.
There are three internal buses associated with processors: the data bus, address bus, and control bus.
Each data bus is designed to handle so many bits of data at a time.
The amount of data a data bus can handle is called **bandwidth**.
132. **Answer: (A)**
A **query** is a request for data or information from a database table or combination of tables.
This data may be generated as results returned by Structured Query Language (SQL) or as pictorials, graphs or complex results.
One of several different query languages may be used to perform a range of simple to complex database queries.
SQL, the most well-known and widely-used query language, is familiar to most database administrators (DBAs).
Query languages generate different data types according to function.

- For example, SQL returns data in neat rows and columns and is very similar to Microsoft Excel in appearance.
133. **Answer: (B)**
A **stylus** is an instrument shaped like a pen, designed to be used with graphics tablets or devices that use touch screen input. It is used to write or draw on a screen, similar to how you would on a sheet of paper. The stylus has the same function as a mouse or touchpad as a pointing device.
The first use of a stylus in a computing device was the Stylator, demonstrated by **Tom Dimond** in 1957.
A **plotter** is a computer hardware device much like a printer that is used for printing vector graphics.
Printer is a peripheral machine which makes a persistent representation of graphics or text, usually on paper.
A **joystick** is an input device that is commonly used to control gaming applications and used in graphics applications.
134. **Answer: (D)**
In Microsoft Excel and other spreadsheet programs, pressing '**Ctrl + Space**' selects the entire column containing the active cell.
Consider the following steps to select one or more rows and columns:
Step: #1 Select the letter at the top to select the entire column or click on any cell in the column and then press Ctrl + Space.
Step: #2 Select the row number to select the entire row or click on any cell in the row and then press Shift + Space.
Step: #3 To select non-adjacent rows or columns, hold Ctrl and select the row or column numbers.
135. **Answer: (A)**
SMPS stands for **Switched-Mode Power Supply**. It is an electronic power supply that uses a switching regulator to convert electrical power efficiently. It is also known as Switching Mode Power Supply.
It is power supply unit (PSU) generally used in computers to convert the voltage into the computer acceptable range.
This device has the power handling electronic components that converts electrical power efficiently.
SMPS uses a great power conversion technique to reduce overall power loss. The device uses switching regulators that switches the load current on and off to regulate and stabilize the output voltage.
136. **Answer: (B)**
Linux is a free open-source operating system (OS) based on UNIX that was created in **1991 by Linus Torvalds**.
Linux is typically packaged in a Linux distribution. It is the leading operating system on servers and other big iron systems such as mainframe computers, and the only OS used on TOP500 supercomputers.
The most common use of Linux is as a server, but it is also used in desktop computers, smartphones, e-book readers and gaming consoles.
137. **Answer: (C)**
A **mesh topology** is a network setup where each computer and network device is interconnected with one another.
This topology setup allows for most transmissions to be distributed even if one of the connections goes down.
It is a topology commonly used for wireless networks and has the highest reliability.
It is a local network topology in which the infrastructure nodes connect directly, dynamically and non-hierarchically to as many other nodes as possible.

- They are typically used for things like home automation, smart HVAC control, and smart buildings.
138. **Answer: (A)**
Microsoft has officially launched its new Windows operating system 'Windows 11' on June 24, 2021. It is being called the "next generation" of Windows.
139. **Answer: (B)**
Bandwidth is defined as the potential of the data that is to be transferred in a specific period of time. It is the data carrying capacity of the network or transmission medium. It is usually expressed in bits, megabits, or gigabits per second. In telecommunications, bandwidth refers to the range that carries a signal within a band of frequencies. This type of bandwidth is measured in Hertz (Hz) and is calculated by finding the difference between the upper and lower frequency limits of a signal.
140. **Answer: (D)**
A **jumper** is a tiny metal connector that is used to close or open part of an electrical circuit. It may be used as an alternative to a dual in-line package (DIP) switch. Jumpers are found in computer hardware as well as other types of electronic devices. A jumper has two or more connecting points, which regulate an electrical circuit board. It is a small metal connector that acts as an on/off switch. Multiple jumpers are often used together to configure settings for a hardware device.
141. **Answer: (A)**
A **null character** is a character with all its bits set to zero. It has a numeric value of zero and can be used to represent the end of a string of characters, such as a word or phrase. A null character is also known as a null terminator. It is available in most major programming languages and many major character sets, including ASCII and Unicode. Null character has wide implementation in programming languages and applications. In practical applications, such as database and spreadsheet programs, null characters are used as fillers for spaces.
142. **Answer: (D)**
A **metafile** is a file that contains specifications for another file. Metafiles are commonly associated with digital graphics, particularly vector images. A metafile can refer to two different types of computer files. The first is a file that describes the contents of other files. This type of metafile may contain metadata, which defines a group other files and gives a summary of what data they contain. The second type of metafile is most often used in computer graphics. These files define objects and images using a list of coordinates.
143. **Answer: (C)**
Myspace is an American social networking service which was the largest social networking site in the world from 2005-2008. Myspace was first created by Tom Anderson and Chris DeWolfe in July 2003. It was created as an online community for anyone to connect and share their journals, pictures, music, and interests with friends. Myspace was acquired by News Corporation in July 2005.
144. **Answer: (D)**
It was the first social network to reach a global audience. The third generation of computers used **integrated circuits** instead of transistors technology that was used in computers of second-generation. Its time period was around 1964 to 1970. An integrated circuit is a small chip that was the trademark of the computers of third generation. The integrated circuit used in 3rd generation computers can work as computer memory, microprocessor or even an amplifier. The technology used in the 3rd generation computers made them more reliable, efficient and smaller in size as compared to first and second generations of computers.
145. **Answer: (A)**
A **Trojan horse** is a type of malicious code or software that looks legitimate but can take control of your computer. It is designed to damage, disrupt, steal, or in general inflict some other harmful action on your data or network. It acts like a bona fide application or file to trick you. It seeks to deceive you into loading and executing the malware on your device. When the user executes the program, the malware can spread to other files and damage your computer.
146. **Answer: (A)**
Recycle Bin is a location where deleted files or folders are temporarily stored in every version of Microsoft Windows since Windows 95. Recycle Bin allows users to recover files that were deleted in Windows. Deleted files are not permanently removed from the hard drive but are sent instead to the Recycle Bin, unless they are too large. The files in the Recycle Bin can be restored to their original location. They cannot be used directly while they are in the Recycle Bin.
147. **Answer: (C)**
A high-level language (HLL) is a programming language that enables a programmer to write programs that are more or less independent of a particular type of computer. Such languages are considered high-level because they are closer to human languages and further from machine languages. High-level languages are designed to be used by the human operator or the programmer. **BASIC, C/C++, FORTRAN, PROLOG and Java are popular examples of high-level languages.** Assembly languages are considered low-level because they are very close to machine languages.
148. **Answer: (C)**
A **syntax error** is an error in the syntax of a coding or programming language, entered by a programmer. Syntax errors are caught by a software program called a compiler. The programmer must fix them before the program is compiled and then run. Syntax errors are different from errors that affect programs during run time. Syntax errors are small grammatical mistakes, sometimes limited to a single character. For example, a missing semicolon at the end of a line or an extra bracket at the end of a function may produce a syntax error.
149. **Answer: (D)**
A **flow chart** is a type of diagram representing a process using different symbols containing information about steps or a sequence of events.

Each of these symbols is linked with arrows to illustrate the flow direction of the process. It is a methodology used to analyse, improve, document and manage a process or program. Flowcharts are commonly used in developing business plans, designing algorithms and determining troubleshooting steps.

The purpose of a flow chart is to provide people with a common language or reference point when dealing with a project or process.

150. Answer: (C)

A patch is a software update comprised code inserted into the code of an executable program. It is a small piece of software that is used to correct a problem, usually called a bug, within an operating system or software program.

Skipping over these important updates can leave your computer, phone, or other device open to malware attacks that the patch is intended to prevent.

In Windows, most patches, fixes, and hotfixes are made available via Windows Update.

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टेस्ट फॉर्म नंबर

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कुल प्रश्न : 150
निर्धारित समय : 135 मि.

उम्मीदवारों को निर्देश

प्रश्नों को हल करने से पहले निम्नलिखित निर्देशों को ध्यान से पढ़ें।

- (1) इस पुस्तिका में 150 Questions हैं, जो कि निम्नलिखित तीन Section में शामिल होंगे जिनमें प्रत्येक में दो Module होंगे:

Section-I : 60 minutes	Section-II : 60 minutes	Section-III : 15 minutes
Module-I: Mathematical Abilities (30 Questions)	Module-I: English Language and Comprehension (45 Questions)	Module-I: Computer Knowledge Test (20 Questions)
Module-II: Reasoning and General Intelligence. (30 Questions)	Module-II: General Awareness (25 Questions)	

- (2) सभी प्रश्न अनिवार्य हैं तथा सबके बराबर अंक हैं। उम्मीदवारों के लिए पेपर- I के सभी वर्गों को उत्तीर्ण करना अनिवार्य होगा।
- (3) प्रश्नों को हल करना प्रारम्भ करने से पहले आपको इस पुस्तिका की जांच करनी चाहिए और यह सुनिश्चित करना चाहिए कि इसमें सभी पृष्ठ उपस्थित हैं और कोई पृष्ठ कम या बदला हुआ नहीं है। अगर आपको इस पुस्तिका में कोई दोष मिलता है, तो आपको तुरंत इसे बदलना होगा।
- (4) प्रत्येक प्रश्न में नकारात्मक अंकन होता है क्योंकि प्रत्येक गलत उत्तर के लिए 1/3 अंक काट दिया जाएगा।
- (5) उत्तर केवल पेंसिल या ब्लैकब्लू बॉल पेन/ द्वारा उत्तरपुस्तिका प्रासंगिक प्रश्न संख्या के सम्बंधित गोले को पूरी तरह से ब्लैक करके - दिखाया जाना चाहिए।
- (6) OMR उत्तर पुस्तिका को एक मशीन द्वारा जांचा जायेगा। यदि किसी स्थिति में उपलब्ध जानकारी, आवेदन पत्र में दी गयी जानकारी से अलग पायी गयी, तो आवेदक का आवेदन निरस्त कर दिया जायेगा।
- (7) निरीक्षक की अनुमति मिलने के बाद ही कोई परीक्षा कक्ष छोड़ सकता है।
- (8) उपरोक्त में से किसी भी निर्देश का अनुपालन करने में विफल उम्मीदवार को उपयुक्त कार्यवाहीजुर्माना के लिए उत्तरदायी समझा जा सकता है।
- (9) जितनी जल्दी हो सके उतनी जल्दी और सावधानी से प्रश्नों का उत्तर दें। कुछ सवाल कठिन हो सकते हैं और दूसरे आसान हो सकते हैं। किसी भी प्रश्न पर ज्यादा समय नहीं बिताएं।
- (10) मोबाइल फोन और वायरलेस संचार उपकरण, परीक्षा कक्ष कमरे में पूरी तरह से प्रतिबंधित/हैं। कोई भी आवेदक अपने मोबाइल का या किसी वायरलेस संचार उपकरण को बंद करके भी अपने पास नहीं रख सकता। नियम का उल्लंघन करने पर आवेदक के विरुद्ध उचित कार्यवाही की जायेगी और उसका आवेदन भी निरस्त किया जा सकता है।
- (11) उत्तर-पत्र पर कोई रफ काम नहीं किया जाना चाहिए।
- (12) कोई भी उम्मीदवार परीक्षा पूरा होने से पहले परीक्षा कक्ष नहीं छोड़ सकता है।

परीक्षार्थी का नाम:.....

दिनांक:..... परीक्षा कोड

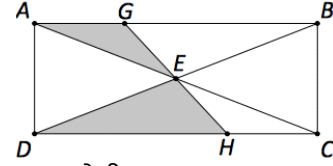
अनुक्रमांक:.....

जब तक आपको यह परीक्षण पुस्तिका खोलने को न कहा जाए तब तक न खोलें।

Section-I : 60 minutes

Mathematical Abilities

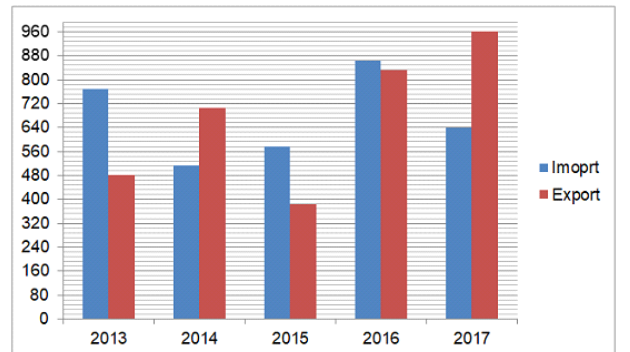
- एक फर्श पर गिरने के बाद, एक रबर की गेंद उस ऊंचाई के $(4/5)$ th तक वापस उछलती है, जिस ऊंचाई से इसे गिराया जाता है। स्थिर होने के पहले गेंद द्वारा तय की गई दूरी ज्ञात करें (मीटर में) यदि इसे आराम से 100 मीटर की ऊंचाई से गिराया जाता है।
(A) 900 मीटर (B) 800 मीटर
(C) 720 मीटर (D) 640 मीटर
- A और B अकेले एक कार्य को क्रमशः 25 और 40 दिन में कर सकते हैं। अब एक नए प्रक्रिया के अनुसार, वे A से शुरू होते हुए एक के बाद एक दिन छोड़ कर कार्य करते हैं और प्रत्येक 2 दिन के कार्य के बाद वे 1 दिन का अवकाश लेते हैं और अवकाश के बाद वह व्यक्ति कार्य शुरू करता है जो अवकाश के एक दिन पहले कार्य करता है। इस प्रक्रिया से, पुरे कार्य को समाप्त करने में कितने दिन लगेंगे?
(A) 45 दिन (B) 46 दिन
(C) 54 दिन (D) 53 दिन
- चार संख्याएं इस तरह हैं कि जब किसी तीन संख्याओं के औसत को शेष चौथे संख्या में जोड़ा जाता है तो प्राप्त संख्या क्रमशः 348, 380, 420 और 364 है। इन सभी में सबसे बड़ी संख्या ज्ञात करें।
(A) 192 (B) 252
(C) 168 (D) 144
- एक विक्रेता Rs. 900 में एक वस्तु को खरीदता है। वह इस वस्तु को 10% की छुट प्रदान कर 25% लाभ पर बेचता है। वस्तु का अंकित मूल्य कितना है?
(A) Rs. 1250 (B) Rs. 1650
(C) Rs. 1125 (D) Rs. 1450
- गेंहू की कीमत में 10% की गिरावट आने के कारण एक ग्राहक Rs. 270 में 5 किलो अधिक गेंहू को खरीद सकता है। गेंहू के प्रति किलो वास्तविक और घटे हुए मूल्य के बीच का अंतर कितना है?
(A) 80-पैसे (B) Rs. 1.2
(C) 40-पैसे (D) 60-पैसे
- राजीव एक बैंक से 3 वर्षों के लिए 12% प्रतिवर्ष वार्षिक देय चक्रवृद्धि ब्याज पर उधार लेता है। दूसरे वर्ष के अंत में, वह Rs. 5197 का भुगतान करता है और तीसरे वर्ष के अंत में Rs. 1204 का भुगतान कर सभी ऋण चुकता कर देता है। Rajiv द्वारा लिए गए ऋण की मात्रा ज्ञात करें।
(A) Rs. 4500 (B) Rs. 8000
(C) Rs. 5000 (D) Rs. 6000
- दिए गए आंकड़े में ABCD एक आयत है जिसमें $AB = 8$ सेमी और $AD = 2$ सेमी है। छायांकित क्षेत्र का क्षेत्रफल कितना है?



- (A) 8 सेमी² (B) 4 सेमी²
(C) 6.4 सेमी² (D) 7.2 सेमी²

- बिंदु P से एक 16सेमी लम्बी स्पर्शरेखा खींची जाती है जो बिंदु Q पर वृत्त को स्पर्श करता है और बिंदु P और वृत्त के केंद्र के बीच की दूरी 20सेमी है, वृत्त की त्रिज्या ज्ञात करें।
(A) 15 सेमी (B) 12 सेमी
(C) 18 सेमी (D) 22 सेमी
- यदि एक समकोण आयताकार प्रिज्म के फलक का क्षेत्रफल 35 सेमी² और 56 सेमी² है, और प्रिज्म का आयतन 280 सेमी³ है, तो प्रिज्म के सम्पूर्ण पृष्ठ का क्षेत्रफल (सेमी² में) कितना है?
(A) 262 सेमी² (B) 254 सेमी²
(C) 264 सेमी² (D) 248 सेमी²
- एक नियमित षट्भुज की प्रत्येक भुजा 20 सेमी है। उस सबसे बड़े समबाहु त्रिकोण का संलग्न क्षेत्र कितना है जो इस षट्भुज के अंदर फिट होगा?
(A) $300\sqrt{3}$ सेमी² (B) $240\sqrt{3}$ सेमी²
(C) $200\sqrt{3}$ सेमी² (D) $360\sqrt{3}$ सेमी²
- $[\sec x(1 - \sin x)(\sin x + \cos x)(\sec x + \tan x)] / [\sin x(1 + \tan x) + \cos x(1 + \cot x)]$ का मान ज्ञात करें?
(A) $\sin x \cos x$ (B) $2 \sin x$
(C) $\operatorname{cosec} x \sec x$ (D) $2 \cos x$
- यदि $x^3 - 3x^2 + 4x + 2 = 0$ के सूत्र p, q और r हैं, तो $1/p + 1/q + 1/r$ का मान कितना है?
(A) -2 (B) 0
(C) 2 (D) -1

Direction: (13-15): दिए गए दंड आरेख 2013 से 2017 तक एक देश द्वारा steel के आयात (किलो में) और निर्यात (किलो में) को दर्शाता है।



- 2013 और 2015 में steel के कुल आयात और 2014 और 2016 में steel के कुल निर्यात का अनुपात कितना है?

- (A) 7:8 (B) 8:7
(C) 7:6 (D) 6:7
14. 2014 और 2016 में steel के आयात की कुल मात्रा 2017 में steel के कुल निर्यात से कितना प्रतिशत अधिक / कम है?
(A) 43.33% (B) 46.67%
(C) 42.44% (D) 45.67%
15. 2013 और 2017 के बीच steel के आयात और निर्यात की औसत मात्रा के बीच अंतर ज्ञात करें?
(A) 22/3 किलो (B) 32/3 किलो
(C) 0 किलो (D) 9 किलो
16. एक त्रिभुज के निर्देशांक A (2, 5), B (-2, 3) और C (0, -3) हैं; उसके माधिका AD का समीकरण ज्ञात करें?
(A) $8x - 5y + 3 = 0$ (B) $6x - 3y + 4 = 0$
(C) $5x - 3y + 5 = 0$ (D) $4x - 2y + 7 = 0$
17. वह न्यूनतम पूर्णांक जिसके लिए inequality $\{(x - 5)/(x^2 + 2x - 35)\} > 0$ सत्य है:
(A) 0 (B) -6
(C) -5 (D) -7
18. एक 3.8 मीटर लम्बी सीढ़ी एक दीवार पर टिकी है और सीढ़ी का तल दीवार के तल से 3.2 मीटर की दूरी पर है। यदि सीढ़ी की चोटी 0.6 मीटर से खिसक जाती है तो सीढ़ी का तल लगभग कितने मीटर से खिसकता है?
(A) 0.16 मीटर (B) 0.31 मीटर
(C) 0.88 मीटर (D) 1.02 मीटर
19. एक नाव शांत जल में 6 km/h की गति से चल रही है, 420 km ऊँचे चोटी से नाव की अवनमन कोण को 60° से 45° बदलने के लिए लिया गया कुल समय कितना है? ($\sqrt{3} = 1.732$)
(A) 2 मिनट (B) 5 मिनट
(C) 8 मिनट (D) 12 मिनट
20. यदि $a = 997$, $b = 998$ और $c = 999$ है, तो $a^3 + b^3 + c^3 - 3abc$ का मान ज्ञात करें।
(A) 8982 (B) 10000
(C) 7925 (D) 9999
21. एक कमरे की ऊँचाई, लंबाई और चौड़ाई क्रमशः 8 मीटर, 12 मीटर और 6 मीटर है। कमरे की चार दीवारों को रंगने की लागत ज्ञात करें, यदि 12 m^2 के क्षेत्र को रंगने की लागत Rs. 100 है।
(A) Rs. 28,800 (B) Rs. 14,400
(C) Rs. 2,400 (D) Rs. 4,200
22. '4' और '9' के माध्य आनुपातिक और '3', '5' और '6' के चौथे समानुपाती का अनुपात ज्ञात करें।
(A) 5:6 (B) 1:4
(C) 2:3 (D) 3:5
23. एक संख्या को 754 से विभाजित करने पर 17 शेषफल बचता है। यदि समान संख्या को 13 से विभाजित किया जाए, तो निम्नलिखित में से कौन-सा शेषफल रहेगा?
(A) 4 (B) 8
(C) 2 (D) 0
24. एक राशि को जब 20% प्रति वर्ष चक्रवृद्धि ब्याज (वार्षिक देय पर) पर निवेश किया जाता है तो वह $(11/4)$ वर्षों के बाद संचयित होकर Rs. 9,936 हो जाती है। निवेश की गई राशि ज्ञात करें।
(A) Rs. 5,400 (B) Rs. 6,000
(C) Rs. 7,200 (D) Rs. 6,400
25. एक वस्तु के अंकित मूल्य और क्रय मूल्य का अनुपात क्रमशः 5:4 है। यदि वस्तु को 12% की छूट देकर इस प्रकार बेचा जाता है कि उसे Rs.40 का लाभ हो, तो वस्तु का अंकित मूल्य ज्ञात करें।
(A) Rs. 800 (B) Rs. 500
(C) Rs. 750 (D) Rs. 660
26. निम्न का सरल मान ज्ञात करें:
 $\sqrt{41 + 12\sqrt{5}}$
(A) $(6 - \sqrt{5})$ (B) $(6 + \sqrt{5})$
(C) $(2 + \sqrt{3})$ (D) $(3 - \sqrt{2})$
27. यदि एक वर्ग ABCD के विकर्ण BD की लंबाई 12.5 सेमी है, तो वर्ग का क्षेत्रफल ज्ञात करें।
(A) 75.525 सेमी² (B) 82.50 सेमी²
(C) 78.125 सेमी² (D) 80.125 सेमी²
28. $\{\cot 10^\circ \times \cot 200^\circ \times \cot 60^\circ \times \cot 80^\circ \times \cot 70^\circ\}$ का मान ज्ञात करें।
(A) $(1/\sqrt{3})$ (B) 1
(C) $\sqrt{3}$ (D) 0
29. राकेश अपनी आय का 50% खर्च करता है। यदि उसकी आय में 20% की वृद्धि होती है जबकि उसके व्यय में 8% की वृद्धि होती है, तो उसकी बचत में प्रतिशत परिवर्तन ज्ञात करें।
(A) 12% (B) 32%
(C) 25% (D) 18%
30. ABCD एक समद्विबाहु समलम्ब है जहाँ $AB \parallel DC$ है। यदि $AB = 4$ सेमी, $DC = 8$ सेमी और समलम्ब का क्षेत्रफल 9 सेमी² है, तो समलम्ब की ऊँचाई ज्ञात करें।
(A) 1.25 सेमी (B) 1.50 सेमी
(C) 1.75 सेमी (D) 2.00 सेमी

Reasoning and General Intelligence

31. उस विकल्प का चयन कीजिए, जो दर्पण के दाएँ ओर रखे जाने पर दी गई आकृति की दर्पण छवि से सबसे सही ढंग से मिलता-जुलता है।

@98&φ←∠θΣ→£

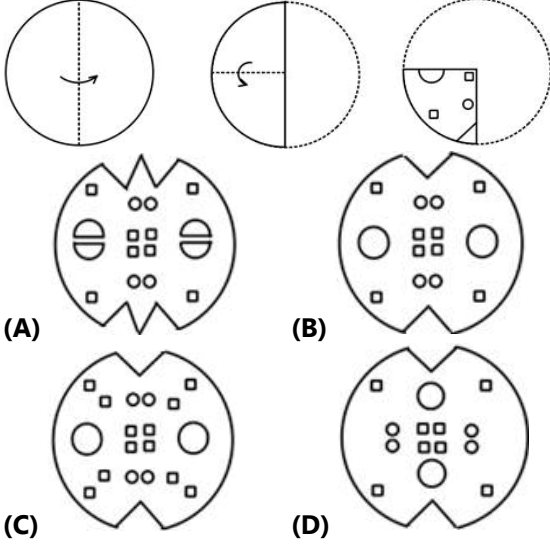
(A) £←Σθ∠→φ&86@

(B) ①②③④←→⑤⑥⑦⑧

(C) ③←→④⑤⑥⑦⑧⑨⑩

(D) ③←→④⑤⑥⑦⑧⑨⑩

32. जब पेपर को बिन्दु रेखा पर मोड़ा जाता है और दिए गए अनवर छिद्रित किया जाता है, तो दिए गए चार विकल्पों I, II, III और IV में से कौन-सा पैटर्न प्रदर्शित होगा?



33. उस विकल्प का चयन करें जो पांचवीं संख्या से उसी तरह से संबंधित है जिस प्रकार से दूसरी संख्या पहली संख्या से संबंधित है और चौथी संख्या तीसरी संख्या से संबंधित है।

27:53:: 84:80::96:?

- (A) 117 (B) 105
(C) 140 (D) 118

34. उस विकल्प का चयन करें जो तीसरे अक्षर समूह से उसी तरह से संबंधित है जिस प्रकार दूसरा अक्षर-समूह पहले अक्षर-समूह से संबंधित है।

EGIK: HKNQ:: JLNP:?

- (A) LORU (B) MPRV
(C) MRSU (D) MPSV

35. एलेक्स बिंदु A से उत्तर की ओर 4 मीटर तक चलता है, फिर वह दाएं मुड़ता है और 6 मीटर चलता है। अंत में वह एक दाएँ मुड़ता है और बिंदु C तक पहुँचता है जो बिंदु A के पूर्व में है। रॉन बिंदु B से दक्षिण की ओर चलना शुरू करता है और बिंदु A और C के बीच की न्यूनतम दूरी के आधी दूरी तक चलता है। वह दाएँ मुड़ता है और 9 मीटर तक चलता है। अंत में वह बिंदु C तक पहुँचने के लिए दाएँ मुड़ता है जो B के पश्चिम में है। दोनों के द्वारा पैदल चलते हुए तय की गई दूरी के बीच का अंतर कितना है?

- (A) 15 मीटर (B) 1 मीटर
(C) 7 मीटर (D) 11 मीटर

36. K का पिता G है जो A का भाई है। M, A की सिस्टर इन लॉ है, जो R की बेटी है। T को केवल दो बेटे हैं। K, R की पोती/नातिन है। A, जो एक पुरुष है, उसका केवल एक सहोदर है। M, T से कैसे संबंधित है?

- (A) बहन (B) भांजी/भतीजी

- (C) पोती/नातिन (D) बहू

37. एक निश्चित कोडित भाषा में, 'cure and heal' को '219' के रूप में कोडित किया जाता है, 'heal the scar' को '509' के रूप में कोडित किया जाता है, तो शब्द 'heal' का कोड क्या है?

- (A) 2 (B) 1
(C) 0 (D) 9

38. किसी कोड भाषा में, RETAIN को 24 के रूप में कोडित किया जाता है, BESIDES को 35 के रूप में कोडित किया जाता है और PROCEDURE को 63 के रूप में कोडित किया जाता है, फिर GIVEN के लिए कोड क्या है?

- (A) 8 (B) 15
(C) 24 (D) 80

39. निम्नलिखित प्रश्न में, समान ओर की दो संख्या को आपस में बदल कर समीकरण को सही करें।

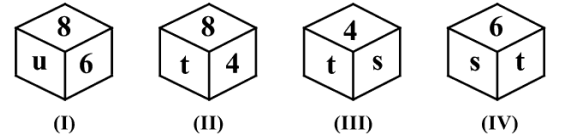
$$120 \div 3 + 14 \times 4 - 11 = 100 - 15 \times 26 \div 13$$

- (A) 11 और 14 (B) 15 और 13
(C) 3 और 4 (D) 100 और 26

40. 17 सितम्बर, 2012 को सप्ताह का कौन-सा दिन था?

- (A) शनिवार (B) बृहस्पतिवार
(C) रविवार (D) सोमवार

41. निम्नलिखित प्रश्न में, एक पासे के छह फलक 4, 6, 8, s, t और u हैं। समान घन के चार स्थितियाँ दिए गए हैं। यदि '6' घन के शीर्ष पर होता है, तो सबसे निचले फलक पर क्या होगा?



- (A) 8 (B) u
(C) t (D) 4

42. नीचे दिए गए प्रश्न में, दो कथन तथा उनका अनुसरण करते हुए निष्कर्ष: I, II और III दिये गए हैं। आपको दिए गए कथनों को सत्य मानना है, भले ही वे आमतौर पर ज्ञात तथ्यों से भिन्न हों। सभी निष्कर्ष पढ़ें और निर्धारित करें कि दिए गए निष्कर्षों में से कौन-सा निष्कर्ष सामान्यतः ज्ञात तथ्यों की अवहेलना करते हुए तर्कसंगत रूप से दिए गए कथनों का अनुसरण करता है।

कथन : सभी वांट, विशेष हैं।

कोई नीड, वांट नहीं हैं।

निष्कर्ष : I. कुछ विशेष, नीड्स नहीं हैं।

II. कोई नीड, विश नहीं हैं।

(A) केवल I अनुसरण करता है

(B) केवल II अनुसरण करता है

(C) I और II दोनों अनुसरण करते हैं

(D) या तो I या II अनुसरण करता है

43. नीचे दिए गए प्रश्न में, दो कथन तथा उनका अनुसरण करते हुए निष्कर्ष: I, II और III दिये गए हैं। आपको दिए गए कथनों को सत्य मानना है, भले ही वे आमतौर पर

- ज्ञात तथ्यों से भिन्न हों। सभी निष्कर्ष पढ़ें और निर्धारित करें कि दिए गए निष्कर्षों में से कौन-सा निष्कर्ष सामान्यतः ज्ञात तथ्यों की अवहेलना करते हुए तर्कसंगत रूप से दिए गए कथनों का अनुसरण करता है।
कथन: कुछ लीफलेट, पैम्फलेट हैं।
 कोई पैम्फलेट, पेज नहीं है।
निष्कर्ष: I. सभी पैम्फलेट, लीफलेट हैं।
 II. कोई पेज, लीफलेट नहीं है।
 III. कुछ लीफलेट, पेज हैं।
 (A) केवल I अनुसरण करता है।
 (B) या तो I या III अनुसरण करता है।
 (C) केवल I और II अनुसरण करता है।
 (D) या तो II या III अनुसरण करता है।
44. निम्नलिखित श्रृंखला में उस पद का चयन करें जो प्रश्न चिह्न (?) को प्रतिस्थापित करेगा।
 BEF, HIJ, ?, TQR, ZUV
 (A) OLM (B) LNO
 (C) NMN (D) LMN
45. दिए गए विकल्पों में से लुप्त संख्या का चयन करें।

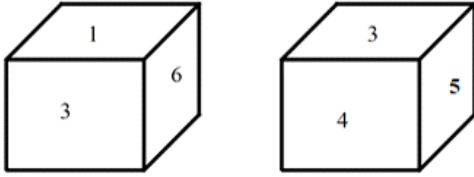
12	6	9
56	2	13
17	8	?

 (A) 10 (B) 9
 (C) 7 (D) 5
46. छह अलग-अलग रंग के बॉक्स के अलग-अलग आकार हैं। लाल रंग का बॉक्स कम से कम दो बॉक्स से बड़ा है। काला रंग का बॉक्स हरे और सफ़ेद दोनों से छोटा है। नारंगी रंग का बॉक्स लाल और पीले से छोटा है। सफ़ेद रंग का बॉक्स हरे से बड़ा है। काले रंग का बॉक्स से केवल दो बॉक्स बड़े हैं। निम्नलिखित में से कौन-सा सही है?
 (A) नारंगी रंग का बॉक्स हरे रंग के बॉक्स से बड़ा है।
 (B) सफ़ेद रंग का बॉक्स केवल एक बॉक्स से छोटा है।
 (C) हरे रंग का बॉक्स लाल रंग के बॉक्स से छोटा है।
 (D) पीले रंग का बॉक्स केवल एक बॉक्स से बड़ा है।
47. निम्नलिखित चार में से तीन संख्या-जोड़े एक निश्चित तरीके से एक जैसे हैं और एक अलग है। विषम चुनें।
 (A) 8 : 70 (B) 13 : 175
 (C) 9 : 90 (D) 11 : 127
48. नीचे दिए गए प्रश्न में, एक कथन के बाद दो निष्कर्ष दिए गए हैं। आपको दिए गए कथनों को सत्य मानना है भले ही वे आम तौर पर ज्ञात तथ्यों से भिन्न हों। निर्धारित करें कि कौन-सा निष्कर्ष तार्किक रूप से अनुसरण करता है। अधिकतर एथलीट, तैराक हैं। कुछ तैराक, कलाकार हैं।
निष्कर्ष I: कोई एथलीट, कलाकार नहीं हो सकता है।
निष्कर्ष II: कुछ तैराक, एथलीट हैं।
 (A) केवल निष्कर्ष I अनुसरण करता है।
 (B) केवल निष्कर्ष II अनुसरण करता है।
 (C) दोनों निष्कर्ष अनुसरण करते हैं।
 (D) न तो निष्कर्ष I और न ही निष्कर्ष II अनुसरण करता है।
49. निम्नलिखित शब्दों को एक तार्किक और सार्थक क्रम में व्यवस्थित करें:
 (1) दवा की पर्ची (2) फिजियोथेरेपिस्ट
 (3) दुर्घटना (4) आराम
 (5) दवा (6) चोट
 (A) 3,6,2,5,1,4 (B) 3,6,2,1,4,5
 (C) 3,6,2,1,5,4 (D) 3,6,4,2,1,5
50. एक श्रृंखला लुप्त पद के साथ दी गई है। दिए गए विकल्पों में से सही विकल्प चुनें जो श्रृंखला को पूरा करेगा।
 BBBBBOB, BBBOBBBB, BBBBBOBB, BBOBBBBB, BBBBOBBB
 (A) BBBBBOBB (B) BBBBBOB
 (C) BBBBBOBB (D) BOBBBBBB
51. 110 सैनिक सामने से लेकर अंत तक एक कतार में खड़े हैं। सामने से A का स्थान 56 वां है। दिए गए कतार के अंत से A का स्थान क्या है?
 (A) 55 वां (B) 54 वां
 (C) 56 वां (D) निर्धारित नहीं किया जा सकता
52. नीचे दिए गए प्रश्न में, तीन कथन के बाद निष्कर्ष I और II दिए गए हैं। आपको दिए गए कथनों को सत्य मानना है, भले ही वे सामान्यतः ज्ञात तथ्यों से भिन्न प्रतीत होते हों। निष्कर्षों को पढ़ें और तय करें कि दिए गए निष्कर्षों में से कौन सा दिए गए कथनों का तार्किक रूप से अनुसरण करता है, सामान्यतः ज्ञात तथ्यों की अवहेलना करता है।
कथन: सभी मैट्स, टॉयज हैं।
 कोई ग्लॉस, मैट्स नहीं है।
निष्कर्ष I: कुछ टॉयज, मैट्स हैं।
निष्कर्ष II: कुछ टॉयज, ग्लॉस नहीं है।
 (A) केवल I अनुसरण करता है।
 (B) दोनों I और II अनुसरण करते हैं।
 (C) या तो I या II अनुसरण करता है।
 (D) कोई भी निष्कर्ष अनुसरण नहीं करता है।
53. नीचे दिए गए प्रश्न में, दो कथनों के बाद एक निष्कर्ष दिया गया है। उसी के अनुसार उत्तर को अंकित करें।
 (a) भारत में एक राज्य से दूसरे राज्य में वस्तुओं को लाने ले जाने की तुलना में विदेशों से भारत में वस्तुओं को लाना आसान है।
 (b) भारत सरकार ने आयातित वस्तुओं के लिए शुल्क कम कर दिया है।
निष्कर्ष: विदेशी कंपनियां भारत में अधिक निवेश कर रही हैं।
 (A) निष्कर्ष निश्चित रूप से सत्य है।
 (B) निष्कर्ष निश्चित रूप से असत्य है।
 (C) निष्कर्ष संभावित रूप से सत्य या असत्य है।
 (D) निष्कर्ष नहीं निकाला जा सकता है।
54. निम्नलिखित वर्ण युग्मों में से तीन किसी प्रकार से एक समान हैं और एक अलग है। असंगत को ज्ञात कीजिए।

- (A) CFI (B) EJO
(C) BDF (D) DHP

55. एक परिवार की तीन बहनें और तीन भाई एक रेखीय पंक्ति में इस प्रकार से बैठे हैं, कि बहनें उत्तर की ओर मुखरित हैं जबकि भाई दक्षिण की ओर मुखरित हैं। W अपने भाई के निकटस्थ दाएँ बैठा है। H कोनों में से एक पर बैठा है। G दक्षिण दिशा की ओर मुखरित नहीं है। O, Y के बाएँ से दूसरे स्थान पर बैठा है। O दक्षिण की ओर मुखरित है। G के दाईं ओर दो व्यक्ति बैठे हैं। G, W का भाई नहीं है। Y, न तो H और न ही N के आसन्न बैठा है। N और G के बीच में एक व्यक्ति बैठा है जो विपरीत दिशाओं की ओर मुखरित हैं। निम्नलिखित में से कौन-सा समूह बहनों का है?
(A) H, W और G (B) N, O और H
(C) Y, G और W (D) G, W और N

56. नीचे समान घन के दो फलकों को दर्शाया गया है। संख्या 2 के विपरीत फलक पर कौन-सी संख्या दिखाई देगी?



- (A) 2 (B) 3
(C) 1 (D) 4

57. निम्नलिखित शब्दों को अंग्रेजी शब्दकोश के क्रम अनुसार व्यवस्थित करें।

1. Wagnor 2. Wagged
3. Wabash 4. Waggon
5. Wackily
(A) 3 5 2 1 4 (B) 3 5 1 4 2
(C) 3 2 1 4 5 (D) 3 5 2 4 1

58. एक शब्द को विकल्पों में दिए गए संख्याओं के समूह में से केवल किसी एक के द्वारा दर्शाया जाता है। विकल्पों में दिए गए संख्याओं के समूहों को, नीचे दिए गए दो आव्यूहों में दर्शाये गए वर्णों की दो श्रेणियों द्वारा दर्शाया गया है। आव्यूह I के स्तंभ और पंक्तियों को संख्या 0 से 4 तक और आव्यूह II के स्तंभ और पंक्तियों को संख्या 5 से 9 तक अंकित किया गया है। इन आव्यूहों में से किसी अक्षर को पहले उसकी पंक्ति द्वारा और फिर उसके स्तंभ द्वारा दर्शाया जाता है। उदाहरण के लिए, A को 01, 14 आदि के द्वारा दर्शाया जा सकता है और 'M' को 56, 68 आदि के द्वारा दर्शाया जा सकता है। इसी प्रकार से आपको 'GRAVEL' शब्द के लिए समूह की पहचान करनी है। (आव्यूह)

MATRIX I

	0	1	2	3	4
0	M	G	R	O	L
1	O	R	L	G	M
2	G	O	M	L	R
3	R	L	O	M	G
4	L	M	G	R	O

MATRIX II

	5	6	7	8	9
--	---	---	---	---	---

5	P	A	D	V	E
6	V	E	P	A	D
7	A	P	E	D	V
8	E	D	V	P	A
9	D	V	A	E	P

- (A) 20,24,97,66,65,40 (B) 01, 02,75,79,96,31
(C) 13,02,65,89,75,40 (D) 42,24,75,58,59,23

59. कृतिका, शिखा से उतने वर्ष बड़ी है जितने वर्ष शिखा, मुकुल से छोटी है। कृतिका, शिखा और मुकुल की वर्तमान आयु का योग 63 वर्ष है। यदि 11 वर्ष बाद मुकुल की आयु 39 वर्ष होगी, तो मुकुल और शिखा की वर्तमान आयु के बीच का अंतर कितना है?
(A) 12 वर्ष (B) 10 वर्ष
(C) 14 वर्ष (D) 16 वर्ष
60. निम्नलिखित में से कौन-सा एक लीप वर्ष होगा?
(A) 3402 (B) 3156
(C) 3398 (D) 3262

Space For Rough Work

Section-II : 60 minutes

English Language and Comprehension

61. In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error' as your answer.

He made a few (A)/ extra money by writing (B)/ stories for a local (C)/ science fiction magazine. (D)

- (A) A (B) C
(C) B (D) D

Directions: (62-66): Read the following passage carefully and answer the questions.

Civil, foreign and World Wars were fought in a period when even the toughest armor could not stop the most lethal weapon. At the turn of the century, it is observed that protective gear was greatly scaled back, retreating once more from full-body armor to strategically placed metal plates. As battlefields grew farther apart and cannon fire spelled imminent death, and as the fighting grew less personal and more distanced (like the relationship between the men who called the orders to those who marched to them), men wore metal plates over their uniforms and donned metal helmets to protect against gunfire. These plates were placed over the heart, which often beat with a fear that was hardly aided by the presence of a thin metal sheet and, later, a tightly-woven polymer simply known as Kevlar.

Kevlar, or light and ultra-strong plastic polymers that are tightly woven into a flexible fabric, became popular after its discovery and implementation in the 1960s. It is now used in everything from sporting equipment—tennis rackets, Formula 1 cars, boating sails—to personal protective equipment like bulletproof vests. Despite all the advances in chemical compounds that form some of the strongest materials on Earth, and which are often used to mitigate the damage wrought by firearms or natural disasters, the science that has gone into the fireproofing and weaponization of simple polymers has more recently returned to its Arizona roots. Two years ago, researchers at the Air Force Research Laboratory announced that they would be looking into an age-old fiber to more fully explore its cooling and temperature regulation properties, and its use toward strengthening current synthetic fibers. That fiber was silk. Artificial spider silk, the researchers suggested, could make for a lighter, stronger and more breathable body armor than even Kevlar.

62. Apart from bulletproof vests, which of the following is Kevlar not used in today?

- (A) Formula 1 cars (B) boating sails
(C) tennis rackets (D) mattresses

63. Which of the following has recently been suggested by researchers as a new fiber that can be better than Kevlar for body armour purposes?

- (A) Artificial spider silk (B) Wool
(C) Japanese seaweed (D) Eggshells

64. It can be understood from the passage that prior to Kevlar, which of the following was used to protect against gunfire?

- (A) Wood (B) Glass
(C) Metal (D) Cloth

65. Which of the following statements about Kevlar is false?

- (A) It is made of ultra-strong plastic polymers
(B) It was discovered and implemented in the 1960s.
(C) It is woven into a flexible fabric that acts as a bulletproof vest.
(D) It can withstand high temperatures.

66. Which of the following do researchers wish to explore when examining an age-old fiber's potential for body armour?

- (A) its cooling and temperature regulation properties
(B) its tensile strength
(C) its elasticity
(D) its weight

Directions: (67-71): Read the following passage carefully and answer the questions.

Beginning roughly 2,000 years ago, the Calusa enjoyed centuries of dominance as the undisputed rulers of southwest Florida. Theirs was a complex society with trade routes spanning hundreds of miles; a powerful military; and built works including wide canals, islands made of shells and towering buildings. Unlike the Maya, Aztecs and Inca, the Calusa built their kingdom, which stretched from modern Tampa Bay to Ten Thousand Islands and as far east as Lake Okeechobee, without agriculture.

Researchers have long wondered how a society that collected all of its food by fishing, hunting and gathering was able to secure enough food to support its ambitious construction projects and military might. Now, a new study published in the Proceedings of the National Academy of Sciences reveals details of how the Calusa stockpiled live fish in massive holding pens, or "watercourts," built out of oyster shells. The idea that these waters courts held fish is not new, writes George Dvorsky for Gizmodo, but the paper is the first to conduct a systematic analysis of the ancient structures. The remains of these watercourts—the largest of which is seven times larger than an NBA basketball court—are located near Fort Myers in Mound Key, where the Calusa's capital city of Calos stood for 500 years.

Radiocarbon dating placed the construction of the watercourts between 1300 and 1400 A.D. This timeframe coincided with the second phase of construction of Calusa king Caalus' manor—a massive building that could hold 2,000 people at the time of its completion, according to Spanish documents. The watercourts could also have been an innovation prompted by a drop in sea level that occurred around 1250, potentially impacting "fish populations enough to help inspire some engineering innovation," says Karen Walker, study co-author and an archaeologist at the Florida Museum, in a statement. Bones and scales excavated from the ancient holding pens belonged to mullet, pinfish and herring, all schooling species that might have been easily herded inside.

67. As per the passage, which of the following tribes built their empire without agriculture?

- (A) Incas (B) Aztecs
(C) Maya (D) Calusa

68. Which of the following is not a feature of the Calusa empire?

- (A) a powerful navy
(B) Trade routes spanning hundreds of miles
(C) Islands made of shells

- (D) Wide canals
69. As per the passage, why did the Calusa people build watercourts?
 (A) for recreational purposes
 (B) for storing fish
 (C) for drowning enemies
 (D) for aesthetic purposes
70. Which of the following statements about watercourts is false as per the passage?
 (A) They were built out of oyster shells.
 (B) They held mullet, pinfish and herring.
 (C) Their remains are located near Fort Myers.
 (D) They were located on the outskirts of the empire.
71. Which of the following could have played a contributing role in the construction of watercourts by the Calusa people?
 (A) A drop in sea level that occurred around 1250
 (B) A change in ocean currents
 (C) A change in wind patterns
 (D) A change in ocean temperatures

Directions: (72-76): Read the following passage carefully and answer the questions.

Abu Hureyra is an important archaeological site in Syria, known for artifacts documenting early adoption of agriculture in the region. It may also be recognized as the only known human settlement to have been hit by a fragment of a comet. The site, now under the waters of Lake Assad, was quickly excavated between 1972 and 1973 before construction of the Tabqa Dam flooded the area. During the excavation, archaeologists realized that there were really two sites, one on top of the other. The first was a Paleolithic settlement of hunter-gatherers, and the second was a farming town, with new buildings of a different style.

A new analysis of samples of soil and artifacts salvaged from the original excavation has revealed a surprising finding: The Paleolithic village at Abu Hureyra was indirectly hit and destroyed by fragments of a comet that slammed into Earth about 12,800 years ago. The researchers think that upon entering Earth's atmosphere, the already-fractured comet likely broke up into several more pieces, many of which didn't reach the ground. Instead, they produced a string of explosions in the atmosphere known as airbursts. Each airburst was as powerful as a nuclear blast, instantaneously vaporizing the soil and vegetation underneath and producing powerful shock waves that destroyed everything for tens of kilometers around. The village at Abu Hureyra was hit by one of these shock waves.

72. What are artifacts of Abu Hureyra known for?
 (A) documenting the early domestication of animals
 (B) documenting the invention of the wheel
 (C) documenting the early adoption of agriculture
 (D) documenting the early use of tools
73. As per the passage, what is an airburst?
 (A) a nuclear blast
 (B) a supersonic wave
 (C) an explosion in the atmosphere caused by a comet
 (D) an explosion in the atmosphere caused by a meteor
74. During the excavation of the archaeological site, what did the researchers realise?

- (A) that there were two sites atop each other
 (B) that there were three sites atop each other
 (C) that the site was older than they had thought
 (D) that the site was the only one to be hit by a comet

75. How was it discovered that the site of Abu Hureyra was hit by a comet?
 (A) during the excavation process
 (B) after an analysis of soil and artifact samples
 (C) after repeated excavation process
 (D) after the construction of the dam flooded the area and threw up previously unknown artifacts
76. Which of the following statements about Abu Hureyra is false as per the passage?
 (A) It is now under the waters of Lake Assad.
 (B) It was flooded by the construction of the Tabqa Dam.
 (C) It used to be a Paleolithic settlement of hunter-gatherers.
 (D) It was one of the few human settlements to be hit by a comet.
77. In the following question, out of the four alternatives, choose the one which best expresses the meaning of the given word.
 Irreverence
 (A) Restive (B) Disrespect
 (C) Avarice (D) Amity
78. In the following question, out of the four alternatives, choose the one which can be substituted for the given words/sentence.
 Kindness shown to somebody when they are being punished
 (A) Chutzpah (B) Chronic
 (C) Clemency (D) Citation
79. In the following question, four different spellings of a word are given, out of which only one is correct. Find the correct spelling of the given word.
 (A) anxious (B) anxous
 (C) anxuuous (D) anxious
80. In the following question, a sentence is given with a phrase or idiom in brackets. Select the option given below that can replace the bracketed phrase.
 This confirms that the group has not only (run out) of money, but has exhausted its political capital, too.
 (A) run after (B) run into
 (C) run over (D) No Improvement
81. In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error' as your answer.
 She had to practice (A)/ flying in various weather (B)/ conditions before she (C)/ could got her pilot's license. (D)
 (A) B (B) D
 (C) A (D) C
82. In the following question, a sentence has been given in Active/ Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.
 The authorities had sanitised the park benches.
 (A) The park benches were being sanitised by the authorities.
 (B) The park benches had been sanitised by the authorities.

(C) The park benches were sanitised by the authorities.

(D) The park benches have been sanitised by the authorities.

Directions: (83-87): In the following passage, some of the words have been left out and replaced by a blank. First read the passage and try to understand what it is about. Then fill in the blanks as per the questions given.

Throughout the world, from the humblest _____ to the most lavish mansion, our homes have always been a respite from the world. For many of us, our daily lives now _____ by quarantine, our homes have suddenly become our world. When we think of the technology that makes our homebound life bearable, we call to mind those electronic devices that allow us to remain connected to the outside world. However, it might _____ us to know that, for our ancestors, many of the objects we take for granted, like napkins, forks and mattresses, were also once marvels of comfort and technology—available to only the few. Our temperature-controlled homes filled with comfortable furniture and lights that turn on at the flick of a switch are luxuries _____ to the kings and queens of the past. Those things that were once only the purview of royalty—chandeliers, comfortable seating, bed pillows—have become such a part of our everyday lives that we forget that all but the basic necessities for survival were once out of reach for all but the upper _____ of society. Our homes are castles beyond what they could have ever imagined.

83. the humblest _____ to the most lavish
(A) abode (B) abide
(C) adept (D) adopt
84. our daily lives now _____ by quarantine
(A) averted (B) apprised
(C) upended (D) undertaken
85. it might _____ us to know that,
(A) suppose (B) surprise
(C) command (D) convince
86. are luxuries _____ to the kings and queens
(A) understandable (B) urged
(C) cynical (D) unfathomable
87. but the upper _____ of society.
(A) echelons (B) eons
(C) aliens (D) allures
88. In the question below, an idiom is given, followed by four options. Select the option that gives the correct meaning of the idiom.
My experiment was a failure, so I'm **back to the drawing board**.
(A) something unexpected and unpleasant
(B) full of hope and enthusiasm
(C) back to the beginning because the current attempt was unsuccessful
(D) a controversial issue or situation that is awkward or unpleasant to deal with.
89. In the following question, out of the four alternatives, choose the one which can be substituted for the given words/sentence.
One who is a centre of attraction
(A) Cynosure (B) Crescendo
(C) Counterfeit (D) Demagogue

90. In the following question, a sentence has been given in Direct/ Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Direct/ Indirect speech.
"Do you have some extra money?" I said to her.
(A) I asked her if she had some extra money.
(B) I asked her do you have some extra money.
(C) I asked her did she have some extra money.
(D) I asked her if she has some extra money.
91. In the following question, a sentence has been given in Active/ Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.
The countries face a lot of rainfall during the summer months.
(A) A lot of rainfall has been faced by the countries during the summer months.
(B) A lot of rainfall had been faced by the countries during the summer months.
(C) A lot of rainfall is faced by the countries during the summer months.
(D) A lot of rainfall will be faced by the countries during the summer months.
92. In the question given below, rearrange the sentences in the correct order, and choose the correct option. The first and sixth (last) statements are given in the right sequence and are fixed.
1. Opera refers to a dramatic art form.
P. The drama in opera is presented using the primary elements of theater such as scenery, costumes, and acting.
Q. By contrast, in musical theater an actor's dramatic performance is primary, and the music plays a lesser role.
R. It originated in Europe.
S. It involves the display of emotional content to the audience as much through music as through the lyrics.
6. However, the words of the opera are sung rather than spoken.
(A) PQRS (B) RSQP
(C) QPRS (D) PSQR
93. In the question below, an idiom is given, followed by four options. Select the option that gives the correct meaning of the idiom.
I go to visit my grandfather only **once in a blue moon** as he lives in a remote farmhouse.
(A) whenever one feels appropriate
(B) at a rapid pace
(C) very rarely
(D) fairly often
94. In the following question, a sentence has been given in Direct/ Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Direct/ Indirect speech.
"I will not go with John," said the boy.
(A) The boy said that he would not go with John.
(B) The boy said that he will not go with John.
(C) The boy said that he would not be going with John.
(D) The boy said that he would not be going without his uncle.
95. In the following question, a sentence is given with a phrase or idiom in brackets. Select the option given below that can replace the bracketed phrase.
At the dairy case, choose lower-fat products while at the meat counter, (go into) lean or extra-lean beef and pork.
(A) go off (B) go out

- (C) go for (D) No Improvement
96. In the following question, choose the word opposite in meaning to the given word.
Dormant
(A) Illicit (B) Mild
(C) Active (D) Rigid
97. In the following question, a sentence has been given in Direct/ Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Direct/ Indirect speech.
"I went to the store after the movie," said the woman.
(A) The woman said that she went to the store after the movie.
(B) The woman said that she had gone to the store after the movie.
(C) The woman said that she has gone to the store after the movie.
(D) The woman said that she goes to the store after the movie.

Directions: (98-102): In the following passage, some of the words have been left out and replaced by a blank. First read the passage and try to understand what it is about. Then fill in the blanks as per the questions given.

The Drimolen Paleocave System is part of South Africa's Unesco World Heritage Site called the Cradle of Humankind, a collection of limestone caves near Johannesburg that are one of Africa's two great _____ of hominid fossils. More than 900 have been found, representing at least 5 different species, during _____ that began nearly a century ago. The big problem in South Africa has been dating all these finds. East Africa's rift valleys, the continent's other great hominin fossil source, feature layers of volcanic ash that can be dated by _____ the decay of radioactive elements, thereby dating the fossils within. In many South African caves, by contrast, older, fossil-filled sections have _____ into lower areas. Modern humans operated mines in the area, too. The result is a confusing and complicated landscape that _____ easy reconstruction.

98. two great _____ of hominid fossils.
(A) sources (B) spurs
(C) surmises (D) spears
99. during _____ that began nearly
(A) expirations (B) excitement
(C) excavations (D) expeditions
100. can be dated by _____ the decay
(A) calculation (B) measuring
(C) ensuring (D) seizing
101. sections have _____ into lower areas.
(A) descent (B) categorized
(C) collapsed (D) conspired
102. landscape that _____ easy reconstruction.
(A) denigrates (B) divides
(C) deploys (D) defies
103. In the question given below, rearrange the sentences in the correct order, and choose the correct option. The first and sixth (last) statements are given in the right sequence and are fixed.
1. Steve was born in Tokyo in 1950.
P. Steve then moved to Cyprus to study at the Mediterranean University.

- Q. He moved to London with his parents when he was 5 years old.
R. Steve started school there and his father began work at the hospital.
S. He lived in England for 2 years then moved to Jordan where he lived there for 10 years.
6. Unfortunately, he did not succeed and returned to Jordan.
(A) PQRS (B) QRSP
(C) QPRS (D) PSQR

104. In the following question, out of the four alternatives, choose the one which best expresses the meaning of the given word.
Laconic
(A) Conceited (B) Pomp
(C) Concise (D) Demented
105. In the given sentence, a blank is given indicating that something is missing. From the given four options, choose the one that provides the correct word to be filled in the blank, thereby making the sentence grammatically and contextually correct.
The criminal begged for parole, but the judge remained _____ for a life sentence
(A) onerous (B) adamant
(C) timid (D) dauntless

General Awareness

106. किस नदी ने मगध और अंग के महाजनपदों का सीमांकन किया?
(A) गंडक (B) कोसी
(C) अस्सी (D) चंपा
107. किन्हीं दो क्रमागत देशांतरों के बीच समय का अंतर कितना है?
(A) 10 मिनट (B) 14 मिनट
(C) 4 मिनट (D) 30 मिनट
108. राष्ट्रपति की किस क्षमादान शक्ति के तहत, सजा के एक रूप को हल्के रूप से प्रतिस्थापित किया जाता है?
(A) कम्यूटेशन (B) छूट
(C) राहत (D) पुनः प्राप्त करें
109. चंपारण सत्याग्रह निम्नलिखित में से किसके विरुद्ध था?
(A) तिकठिया प्रणाली (B) उच्च किराया
(C) बाहरी लोगों (D) भूमि का अवैध हस्तांतरण
110. "The Fractured Himalaya" नामक पुस्तक के लेखक कौन हैं?
(A) निरुपमा राव (B) राधिका मेनन
(C) रॉबिन शर्मा (D) हरमन हेस्से
111. निम्नलिखित में से कौन-सा भारत का सर्वोच्च बैंकिंग संस्थान है जो मौद्रिक नीति को नियंत्रित करता है?
(A) भारतीय रिजर्व बैंक
(B) यूनियन बैंक ऑफ इंडिया
(C) भारतीय स्टेट बैंक
(D) बैंक ऑफ इंडिया

112. राज्य में आंगनवाड़ी कार्यकर्ताओं के कल्याण को बढ़ावा देने के लिए कौन-सी सरकार आंगनवाड़ी कार्यकर्ताओं को स्मार्टफोन देगी?
(A) पंजाब (B) कर्नाटक
(C) तमिलनाडू (D) उत्तर प्रदेश
113. निम्नलिखित में से कौन महात्मा गांधी द्वारा लिखित पुस्तकों में से एक नहीं है?
(A) द स्टोरी ऑफ़ माय एक्सपेरिमेंट्स विद ट्रुथ
(B) हिंद स्वराज
(C) डिस्कवरी ऑफ़ इंडिया
(D) दक्षिण अफ्रीका में सत्याग्रह
114. फासीवाद का राजनीतिक सिद्धांत किस देश में शुरू हुआ?
(A) जापान (B) रूस
(C) इटली (D) चीन
115. सूचना और प्रसारण मंत्रालय के सहयोग से किस OAT प्लेटफॉर्म ने एक लघु वीडियो श्रृंखला 'आजादी की अमृत कहानिया' शुरू की है?
(A) अमेजन प्राइम (B) डिजनी + हॉटस्टार
(C) नेटफ्लिक्स (D) सोनी लीव
116. The Raleigh Commission (1902) को निम्नलिखित में से किसमें सुधारों की सिफारिश करने के लिए नियुक्त किया गया था:
(A) शिक्षा व्यवस्था (B) प्रारूप प्रबंधन
(C) न्यायिक व्यवस्था (D) पुलिस व्यवस्था
117. हाल ही में रिलीज हुई फिल्म "शेरशाह" के निर्देशक कौन हैं?
(A) अनुराग कश्यप (B) विशाल भारद्वाज
(C) आशुतोष ग्वारिकर (D) विष्णुवर्धन
118. 2011 की जनगणना के अनुसार केरल का लिंगानुपात कितना है?
(A) 1024 (B) 1084
(C) 1044 (D) 1064
119. भारत में सार्वजनिक वितरण प्रणाली [Public Distribution System (PDS)] के बारे में गलत कथन की पहचान करें।
(A) 1997 से, लक्षित उपभोक्ताओं के लिए PDS लक्षित सार्वजनिक वितरण प्रणाली (TPDS) बन गया।
(B) पुनर्नियमित सार्वजनिक वितरण प्रणाली [Revamped Public Distribution System (RPDS)] जून 1992 में शुरू की गई थी
(C) गरीबी रेखा से नीचे जीवन यापन करने वालों को रियायती कीमतों पर खाद्यान्न मिलता है।
(D) 2007 से देश में PDS को बंद कर दिया गया है
120. लॉर्ड कर्जन ने जनवरी 1901 में महारानी विक्टोरिया की मृत्यु पर उनके लिए एक 'शानदार' स्मारक स्थापित करने का सवाल जनता के सामने रखा। भारत के राजकुमारों और लोगों ने धन के लिए उनकी अपील का उदारतापूर्वक जवाब दिया और लॉर्ड कर्जन ने इस स्मारक के निर्माण के लिए Rs. _____ की राशि प्राप्त की।
(A) एक करोड़ पांच लाख (B) एक करोड़ पंद्रह लाख
(C) एक करोड़ पच्चीस लाख (D) एक करोड़ पचास लाख
121. सतलुज और काली नदियों के बीच स्थित हिमालय के हिस्से को _____ के रूप में जाना जाता है।
(A) पंजाब हिमालय (B) नेपाल हिमालय
(C) कुमाऊं हिमालय (D) असम हिमालय
122. विश्व डेयरी शिखर सम्मेलन (World Dairy Summit 2022) की मेजबानी कौन सा देश करेगा?
(A) यूनाइटेड (B) आयरलैंड
(C) दक्षिण कोरिया (D) भारत
123. रवींद्र नाथ टैगोर द्वारा रचित गीत 'जन-गण-मन' पहली बार जनवरी 1912 में _____ के शीर्षक से प्रकाशित हुआ था।
(A) मातृभूमि (B) जय है
(C) राष्ट्र जागृति (D) भारत भाग्य विधाता
124. महाराष्ट्र में सत्य शोधक सभा के संस्थापक कौन थे?
(A) गोपाल बाबा वाला
(B) डॉ. बाबा साहेब अंबेडकर
(C) डॉ आत्माराम पांडुरंग
(D) ज्योतिभा फुले
125. माउंट मेरापी ज्वालामुखी किस देश में स्थित है?
(A) न्यूजीलैंड (B) जापान
(C) इंडोनेशिया (D) चीन
126. कौन-सा संगठन " वर्ल्ड इकनोमिक आउटलुक " रिपोर्ट प्रकाशित करता है?
(A) अर्थशास्त्री खुफिया इकाई
(B) एशियन डेवलपमेंट बैंक
(C) न्यू डेवलपमेंट बैंक
(D) अंतर्राष्ट्रीय मुद्रा कोष
127. निम्नलिखित में से किस बाजार में एक फर्म कीमत पर नियंत्रण नहीं रखती है?
(A) मिश्रित प्रतियोगिता (B) एकाधिकार
(C) अल्पाधिकार (D) योग्य प्रतिद्वंद्वी
128. उस बीमारी का नाम बताइए जिसके साथ एडवर्ड जेनर जुड़े हैं।
(A) हैजा (B) टाइफाइड
(C) चेचक (D) पक्षाघात
129. दुनिया का एकमात्र वैज्ञानिक कौन है जिसने दो बार रसायन विज्ञान में नोबेल पुरस्कार जीता है?
(A) लिनस कार्ल पॉलिंग (B) रोजर डी कॉर्नबर्ग
(C) मेडम क्यूरी (D) फ्रेडरिक सेंगर
130. मार्बल कैंसर क्या है?
(A) संगमरमर की खदानों के कारण जानवरों में बीमारी
(B) संगमरमर की खदानों के कारण मिट्टी का क्षरण
(C) खानों में काम करने के कारण मानव में कैंसर
(D) अम्ल वर्षा के कारण संगमरमर का क्षरण

Section-III : 15 minutes

Computer Knowledge

131. कंप्यूटर के भीतर एक pathway जो हार्डवेयर घटकों के बीच डेटा ले जाता है, _____ कहलाता है।
(A) डिजिटल सिग्नल (B) कैरियर सिग्नल
(C) स्विचन (D) डेटा बस
132. Database के संदर्भ में, _____ डेटाबेस तालिका या तालिकाओं के संयोजन से डेटा या सूचना के लिए एक अनुरोध है।
(A) क्वेरी (B) रोलबैक
(C) फॉर्म (D) रिपोर्ट
133. Touch screen input devices या graphics tablets के साथ इस्तेमाल किया जाने वाला पेन के आकार का handheld instrument कौन सा है?
(A) केस (B) स्टाइलस
(C) प्रिंटर (D) प्लॉटर
134. MS Excel में, यदि हम पूरे कॉलम का चयन करना चाहते हैं, तो निम्न में से कौन सी शॉर्टकट कुंजी का उपयोग किया जाना चाहिए?
(A) Ctrl + Alt (B) Ctrl + Alt + Del
(C) Shift + Ctrl (D) Ctrl + Space
135. कंप्यूटर शब्दावली में SMPS का पूर्ण रूप क्या है?
(A) स्विचड मोड पावर सप्लाय
(B) सेटलड मोड पावर सप्लाय
(C) स्विच मोड पैकेट स्विच
(D) सप्लाय मोड पैकेट स्विच
136. निम्नलिखित में से कौन सा UNIX पर आधारित एक free open-source operating system (OS) है?
(A) विंडोज (B) लिनक्स
(C) डॉस (D) पाइथन
137. टोपोलॉजी जिसमें उच्चतम विश्वसनीयता है और आमतौर पर होम ऑटोमेशन, स्मार्ट एचवीएसी कंट्रोल और स्मार्ट बिल्डिंग जैसी चीजों के लिए उपयोग की जाती है, वह _____ है।
(A) रिंग टोपोलॉजी (B) बस टोपोलॉजी
(C) मेष टोपोलॉजी (D) स्टार टोपोलॉजी
138. _____ ने हाल ही में आधिकारिक तौर पर अपना नया विंडोज ऑपरेटिंग सिस्टम 'Windows 11' लॉन्च किया है।
(A) माइक्रोसॉफ्ट (B) गूगल
(C) एडोब (D) फेसबुक
139. _____ डेटा के माप को संदर्भित करता है जो एक निर्धारित समय के भीतर दो बिंदुओं के बीच स्थानांतरित किया जाता है।
(A) लेटेंसी (B) बैंडविड्थ
(C) मेटा-डेटा (D) स्टैक
140. हार्डवेयर उपकरणों को configure करने के लिए उपयोग किए जाने वाले छोटे toggle switches निम्न में से कौन से हैं?
(A) हैडर (B) बीकन
(C) पैकेट (D) जंपर्स
141. एक Null character के बारे में निम्नलिखित में से कौन सा कथन सत्य है?
(A) यह एक ऐसा कैरेक्टर है जिसके सभी बिट्स शून्य पर सेट हैं
(B) इसका हमेशा FALSE के समान मान होता है
(C) इसे SHIFT कुंजी दबाकर दर्ज किया जा सकता है
(D) एक पूर्णांक के रूप में, इसे -1 के रूप में दर्शाया जाता है
142. एक फ़ाइल के लिए प्रयुक्त शब्द क्या है जिसमें किसी अन्य फ़ाइल के लिए specifications शामिल हैं?
(A) मिनीफाइल (B) माइक्रोफाइल
(C) मास्टरफाइल (D) मेटाफाइल
143. 2000 के दशक की शुरुआत में निम्नलिखित में से कौन दुनिया की सबसे बड़ी सोशल नेटवर्किंग साइट थी?
(A) हमारा स्पेस (B) शेयरस्पेस
(C) माइस्पेस (D) ऑर्कुटो
144. निम्नलिखित में से कौन सी तकनीक के विकास के कारण तीसरी पीढ़ी के कंप्यूटरों का उदय हुआ?
(A) सेमीकंडक्टर (B) वीएलएसआई
(C) वैक्यूम ट्यूब (D) एकीकृत सर्किट
145. कौन सा एक प्रकार का malicious code या सॉफ्टवेयर है जो वैध दिखता है लेकिन आपके कंप्यूटर को नियंत्रित कर सकता है?
(A) ट्रोजन हॉर्स (B) वर्म
(C) वायरस (D) टाइम बम
146. Windows computer में, निम्नलिखित में से कौन डिलीट किए गए आइटम, जैसे फाइल और फोल्डर के लिए 'holding bay' का कार्य करता है?
(A) रीसायकल बिन (B) जंक
(C) स्पैम (D) ड्राफ्ट
147. निम्न में से कौन एक उच्च स्तरीय भाषा (HLL) नहीं है?
(A) जावा (B) बेसिक
(C) विधानसभा भाषा (D) फोरट्रान
148. _____ प्रोग्राम के source code में एक त्रुटि है जिसे Compiler द्वारा इंगित किया जा सकता है।
(A) तार्किक त्रुटियां (B) अर्थपूर्ण त्रुटियां
(C) सिंटेक्स त्रुटियां (D) रनटाइम त्रुटियां
149. निम्नलिखित में से कौन सा चित्रात्मक प्रतिनिधित्व है जो एक प्रक्रिया, प्रणाली या कंप्यूटर algorithm को दर्शाता है?
(A) एल्गोरिदम (B) लूप
(C) सरणी (D) फ्लोचार्ट

150. सॉफ्टवेयर का एक छोटा सा टुकड़ा जो किसी ऑपरेटिंग सिस्टम या सॉफ्टवेयर प्रोग्राम के भीतर एक bug को हटाने के लिए उपयोग किया जाता है, _____ कहलाता है।

- (A) स्टैक
- (B) वर्शन
- (C) पैच
- (D) इंडेक्स

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Mathematical Abilities

1. **Answer: (A)**
यात्रा की जाने वाली कुल दूरी श्रृंखला के अनंत योग द्वारा दी जाएगी:
 $100 + 2 [100 \times (4/5) + 100 \times (4/5)^2 + 100 \times (4/5)^3 \dots]$
 $100 + 160 \times [1/(1 - 4/5)] = 100 + 160 \times 5 = 900$
मीटर
इसलिए विकल्प a सही है।
2. **Answer: (B)**
माना कुल कार्य 200 इकाई (25 और 40 का LCM) है।
A की क्षमता = $200/25 = 8$ यूनिट प्रति दिन
और, B की दक्षता = $200/40 = 5$ यूनिट प्रति दिन
पहले 3 दिनों में किया गया कुल कार्य = $8 + 5 = 13$ इकाई
45 दिनों में $13 \times 15 = 195$ यूनिट किया गया।
46वें दिन B काम करता है और उसे 46वें दिन पूरा करता है।
अतः लिया गया कुल समय = 46 दिन
इसलिए विकल्प b सही है।
3. **Answer: (B)**
मान लीजिए कि चार संख्याएँ क्रमशः A, B, C और D हैं।
प्रश्न के अनुसार;
 $3A + B + C + D = 3 \times 348 = 1044$ ---(1)
 $3B + C + D + A = 3 \times 380 = 1140$ -----(2)
 $3C + D + A + B = 3 \times 420 = 1260$ -----(3)
 $3D + A + B + C = 3 \times 364 = 1092$ -----(4)
(1), (2), (3) और (4) को जोड़ने पर हमें प्राप्त होता है
 $6 \times (A + B + C + D) = 4536$
 $A + B + C + D = 756$
तो, $A = 144, B = 192, C = 252$ और $D = 168$
इसलिए विकल्प b सही है।
4. **Answer: (A)**
वस्तु का विक्रय मूल्य = $1.25 \times 900 = \text{रु. } 1125$
वस्तु का अंकित मूल्य = $1125/0.90 = \text{रु. } 1250$
इसलिए विकल्प a सही है।
5. **Answer: (D)**
मान लीजिए कि गेहूँ की कीमत रु. 'x' और मात्रा 'y' किग्रा हो।
- | | मूल्य | मात्रा | कुल खर्च |
|--------------|-------|--------|----------|
| वास्तविक | x | y | 270 |
| बदलाव के बाद | 0.9x | y + 5 | 270 |
- प्रश्न के अनुसार;
 $x \times y = 270$ (i)
और, $0.9x \times (y + 5) = 270$ (ii)
समीकरण (i) और (ii) को हल करने पर, हम प्राप्त करते हैं
 $X = 6$
तो, बदली हुई कीमत 5.4 के बराबर होगी।
तो, मूल और कम कीमत के बीच का अंतर 60 रुपये है।
इसलिए विकल्प d सही है।
6. **Answer: (C)**
माना कि राजीव ने था। बैंक से 'x' रुपये का कर्ज लिया।
प्रश्न के अनुसार;
 $1.12 \times (1.2544 \times x - 5197) = 1204$

$$1.2544 \times x - 5197 = 1075$$

$$1.2544 \times x = 6272$$

$$\text{तो, } x = 5000$$

इसलिए विकल्प c सही है।

7.

Answer: (B)

आयत का क्षेत्रफल = $8 \times 2 = 16$ सेमी²

त्रिभुज DEH और त्रिभुज BEG में:

कोण EDH = कोण EBG

कोण DEH = कोण BEG

DE = BE

अतः त्रिभुज DEH त्रिभुज BEG के सर्वांगसम है। (SSS नियम)

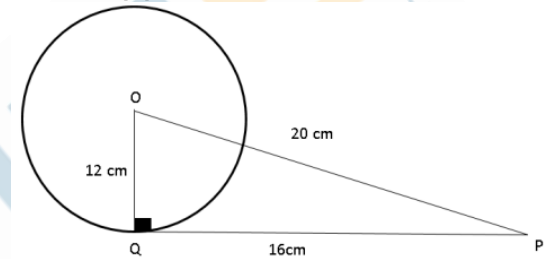
इसी तरह, और त्रिभुज HEC तथा त्रिभुज AEG सर्वांगसम है।

तो, छायांकित क्षेत्र का क्षेत्रफल त्रिभुज DEH और त्रिभुज AEG के क्षेत्रफल के योग के बराबर है जो आयत के कुल क्षेत्रफल का एक-चौथाई = $1/4 \times 16 = 4$ सेमी² है।

इसलिए विकल्प b सही है।

8.

Answer: (B)



चूँकि PQ वृत्त की स्पर्श रेखा है और उनके बीच की दूरी 20 सेमी है।

पाइथागोरस प्रमेय का उपयोग करके वृत्त की त्रिज्या की गणना की जा सकती है

तो, $OP^2 = OQ^2 + QP^2$

$$400 = 256 + OQ^2$$

$$OQ^2 = 144$$

$$OQ = 12 \text{ सेमी}$$

इसलिए विकल्प b सही है।

9.

Answer: (A)

माना आयताकार प्रिज्म के आयाम x सेमी, y सेमी और z सेमी हैं।

इसलिए, अलग-अलग फलकों के क्षेत्रफल xy सेमी², xz सेमी² और yz सेमी² हैं

$$\text{तो, } (xy) \times (xz) \times (yz) = (xyz)^2$$

$$35 \times 56 \times yz = 280 \times 280$$

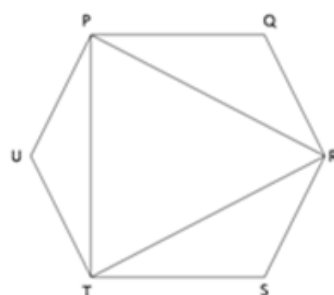
$$\text{तो, } yz = (280 \times 280)/(35 \times 56) = 40 \text{ सेमी}^2$$

$$\text{पृष्ठीय क्षेत्रफल} = 2 \times (35 + 56 + 40) = 2 \times 131 = 262 \text{ सेमी}^2$$

इसलिए विकल्प a सही है।

10.

Answer: (A)



नियमित षट्भुज PQRSTU में, प्रत्येक भुजा की लंबाई 20 सेमी है।

अतः PT की लंबाई = $20\sqrt{3}$ सेमी

तो, सबसे बड़ा समबाहु त्रिभुज जिसकी भुजा $20\sqrt{3}$ सेमी होगी।

वांछित क्षेत्रफल = $\sqrt{3}/4 \times 20\sqrt{3} \times 20\sqrt{3} = 300\sqrt{3}$ सेमी²

इसलिए विकल्प a सही है।

11. **Answer: (A)**

$[\sec x(1 - \sin x)(\sin x + \cos x)(\sec x + \tan x)] / [\sin x(1 + \tan x) + \cos x(1 + \cot x)]$

= $[\sec x(1 - \sin x)(\sin x + \cos x)(\sec x + \tan x)] / [\sin x(1 + \sin x/\cos x) + \cos x(1 + \cos x/\sin x)]$

= $[\sec x(1 - \sin x)(\sin x + \cos x)(\sec x + \tan x) \times \sin x \cos x] / [(\sin^2 x + \cos^2 x)(\sin x + \cos x)]$

= $\sin x \cos x$

इसलिए विकल्प a सही है।

12. **Answer: (A)**

घन समीकरण के लिए; $x^3 - 3x^2 + 4x + 2 = 0$

मूल = p, q और r

मूलों का योग = $p + q + r = 3$(i)

मूलों का गुणनफल = $p \times q \times r = -2$(ii)

एक बार में दो मूलों के गुणनफल का योग;

$pq + qr + pr = 4$ (iii)

समीकरण (iii) को समीकरण (ii) से विभाजित करने पर हमें प्राप्त होता है

$(pq + qr + pr)pqr = -4/2 = -2$

$1/p + 1/q + 1/r = -2$

इसलिए विकल्प a सही है।

13. **Answer: (A)**

वांछित अनुपात = $(768 + 576):(704 + 832)$

= $1344:1536 = 7:8$

इसलिए विकल्प a सही है।

14. **Answer: (A)**

वांछित प्रतिशत = $[(512 + 864 - 960)/960] \times 100$

= 43.33%

इसलिए विकल्प a सही है।

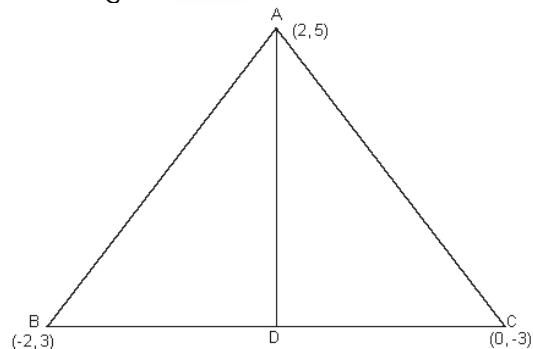
15. **Answer: (B)**

वांछित औसत = $[(512 + 576 + 864) - (704 + 384 + 832)]/3 = 32/3$ kg

इसलिए विकल्प b सही है।

16. **Answer: (C)**

प्रश्न के अनुसार



इसलिए,

D, BC का मध्य-बिंदु है, तो इसके निर्देशांक हैं

$\{(-2 + 0)/2\}, \{(-3 + 3)/2\} = D(-1, 0)$

लाइन AD के लिए,

रेखा का समीकरण इस प्रकार दिया जा सकता है: $\{(y - y_1)/(y_2 - y_1)\} = \{(x - x_1)/(x_2 - x_1)\}$

या, $(y - 5)/(0 - 5) = (x - 2)/(-1 - 2)$

या, $5x - 3y + 5 = 0$

इसलिए विकल्प c सही है।

17. **Answer: (B)**

$\{(x - 5)/(x^2 + 2x - 35)\} > 0$

या, $\{(x - 5)/(x^2 + 7x - 5x - 35)\} > 0$

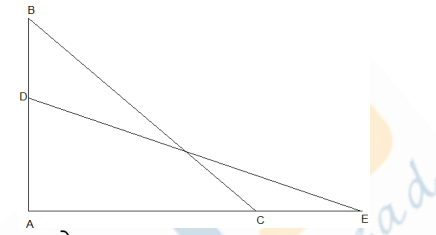
या, $\{(x - 5)/(x + 7)(x - 5)\} > 0$

इसलिए, $x \in (-7, 5) \cup (5, \infty)$ के लिए असमानता सत्य है।

असमानता को संतुष्ट करने वाला सबसे छोटा पूर्णांक '-6' है

इसलिए विकल्प b सही है।

18. **Answer: (B)**



प्रश्न के अनुसार,

BC सीढ़ी है जिसकी लंबाई 3.8 मीटर है।

AC दीवार के पाद और सीढ़ी के पाद के बीच की दूरी = 3.2 मीटर

BD वह दूरी है जिससे सीढ़ी फिसल गई = 0.6 मीटर

समकोण त्रिभुज ABC में,

$BC^2 = AB^2 + CA^2$ [पाइथागोरस प्रमेय का प्रयोग करना]

$(3.8)^2 = (AD + BD)^2 + (3.2)^2$

$14.44 = (AD + 0.6)^2 + 10.24$

$(AD + 0.6)^2 = 14.44 - 10.24 = 4.2$

$AD + 0.6 = 2.04$

$AD = 2.04 - 0.60 = 1.44$

अब, समकोण त्रिभुज ADE में,

$DE^2 = AD^2 + EA^2$

$(3.8)^2 = (1.44)^2 + (3.2 + EC)^2$

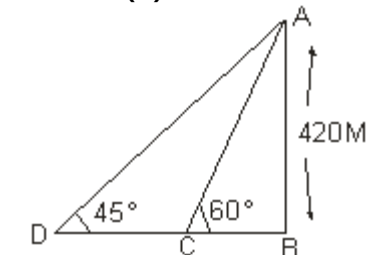
$14.44 = 2.07 + (3.2 + EC)^2$

$\sqrt{12.37} = 3.2 + EC$

$EC = 3.51 - 3.20 = 0.31$ मीटर

इसलिए विकल्प b सही है।

19. **Answer: (A)**



मान लीजिए कि AB 420 मीटर ऊंचाई की चट्टान को दर्शाता है और C, D नाव की दो स्थितियों को दर्शाता है।

त्रिभुज ABC में,

$\tan 60^\circ = (AB/BC)$

या, $BC = 420/\sqrt{3}$

साथ ही, त्रिभुज ABD में,

$\tan 45^\circ = AB/BD$

या, $BD = AB = 420$ m

तय की गई दूरी = $CD = BD - BC$

= $420 - (420/\sqrt{3}) = \{420(\sqrt{3} - 1)/\sqrt{3}\}$ मीटर
 गति = 6 किमी/घंटा = $(6 \times 1000)/60$ मीटर/मिनट = 100 मीटर/मिनट
 हम जानते हैं कि,
 समय = दूरी/गति = $\{420(\sqrt{3} - 1)/\sqrt{3}\} / 100 = 1.77 \sim 2$ मिनट
 इसलिए विकल्प a सही है।

20. **Answer: (A)**

$a^3 + b^3 + c^3 - 3abc = (a + b + c) \times (1/2) \times \{(a - b)^2 + (b - c)^2 + (c - a)^2\}$
 तो, आवश्यक मूल्य = $(997 + 998 + 999) \times (1/2) \times \{(997 - 998)^2 + (998 - 999)^2 + (999 - 997)^2\}$
 = $2994 \times (1/2) \times \{1 + 1 + 4\}$
 = $2994 \times 3 = 8982$
 इसलिए विकल्प a सही है।

21. **Answer: (C)**

चार दीवारों का क्षेत्रफल = $2 \times (\text{लंबाई} + \text{चौड़ाई}) \times \text{ऊँचाई}$
 चार दीवारों का क्षेत्रफल = $2 \times (12 + 6) \times 8 = 16 \times 18 = 288 \text{ m}^2$
 कमरे की दीवारों को रंगने का खर्च = $(288/12) \times 100 = \text{रु. } 2400$
 इसलिए विकल्प c सही है।

22. **Answer: (D)**

'4' और '9' का माध्य अनुपातिक = $(4 \times 9) = \sqrt{36} = 6$
 और, '3', '5' और '6' का चौथा समानुपाती = $\{(5 \times 6)/3\} = 10$
 आवश्यक अनुपात = $6:10 = 3:5$
 इसलिए विकल्प d सही है।

23. **Answer: (A)**

मान लीजिए कि उक्त संख्या को 754 से विभाजित करने पर प्राप्त भागफल 'x' है
 इसलिए, संख्या = $754x + 17 = (754x + 13 + 4)$
 जब दी गई संख्या को 17 से विभाजित किया जाता है तो शेष = $(754x + 13 + 4)/17$
 चूँकि, '754x + 13', '13' से पूर्णतः विभाज्य है। अतः शेषफल = 4
 इसलिए विकल्प a सही है।

24. **Answer: (B)**

मान लीजिए निवेश की गई राशि रु. 'S'
 निवेश की समयावधि = $(11/4)$ वर्ष = 2 वर्ष और 9 महीने
 9 महीने के लिए प्रभावी ब्याज दर = $(9/12) \times 20 = 15\%$
 प्रश्नानुसार;
 $9936 = S \times 1.20 \times 1.20 \times 1.15$
 या, $9936 = S \times (1.44) \times (1.15)$
 तो, $S = 6000$
 अतः निवेश की गई राशि = रु. 6,000
 इसलिए विकल्प b सही है।

25. **Answer: (B)**

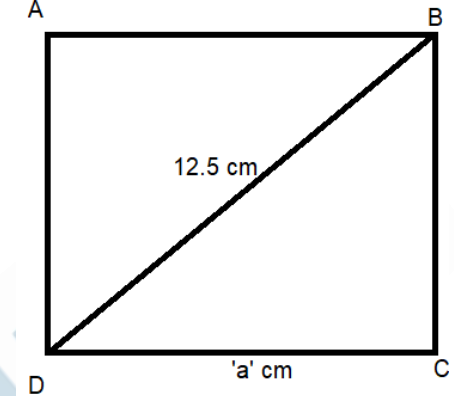
माना वस्तु का अंकित मूल्य '5x' रु है।
 तो, वस्तु का क्रय मूल्य = $(4/5) \times 5x = '4x'$
 वस्तु का विक्रय मूल्य = $(0.88 \times 5x) = '4.4x'$
 प्रश्नानुसार;
 $4.4x - 4x = 40$
 या, $0.4x = 40$
 या, $x = 100$

वस्तु का क्रय मूल्य = $4 \times 4 \times 100 = \text{रु. } 400$
 वस्तु का अंकित मूल्य = $5x = 5 \times 100 = \text{रु. } 500$
 इसलिए विकल्प b सही है।

26. **Answer: (B)**

$\sqrt{41 + 12\sqrt{5}}$
 = $\sqrt{41 + 2 \times 6 \times \sqrt{5}}$
 = $\sqrt{36 + 5 + 2 \times 6 \times \sqrt{5}}$
 = $\sqrt{(6 + \sqrt{5})^2}$
 = $(6 + \sqrt{5})$
 इसलिए विकल्प b सही है।

27. **Answer: (C)**



माना वर्ग ABCD की भुजा = 'a' सेमी
 विकर्ण 'BD' की लंबाई = $a\sqrt{2}$ सेमी
 अतः, $a\sqrt{2} = 12.5$
 या, $A = (12.5/\sqrt{2})$
 वर्ग ABCD का क्षेत्रफल = $(a^2) = (6.25\sqrt{2})^2 = 78.125$ सेमी²
 इसलिए विकल्प c सही है।

28. **Answer: (A)**

$\cot 10^\circ \times \cot 200^\circ \times \cot 60^\circ \times \cot 80^\circ \times \cot 70^\circ$
 = $\cot 10^\circ \times \cot(180^\circ + 20^\circ) \times \cot 60^\circ \times \cot(90^\circ - 10^\circ) \times \cot(90^\circ - 20^\circ)$
 = $\cot 10^\circ \times \cot 20^\circ \times \cot 60^\circ \times \tan 10^\circ \times \tan 20^\circ$
 Using, $\cot x \times \tan x = 1$
 = $\cot 60^\circ = (1/\sqrt{3})$
 इसलिए विकल्प a सही है।

29. **Answer: (B)**

माना राकेश की प्रारंभिक आय = रु. '100x'
 राकेश का प्रारंभिक व्यय = $0.50 \times 100x = '50x'$ रु.
 अतः राकेश की आरंभिक बचत = $(100 - 50x) = '50x'$ रु.
 राकेश की बढ़ी हुई आय = $1.20 \times 100x = '120x'$ रु.
 राकेश का बढ़ा हुआ खर्च = $1.08 \times 50x = '54x'$ रु.
 राकेश की बढ़ी हुई बचत = $(120x - 54x) = '66x'$ रु.
 बचत में बढ़ा प्रतिशत = $\{(66x - 50x)/50x\} \times 100\} = 32\%$
 इसलिए विकल्प b सही है।

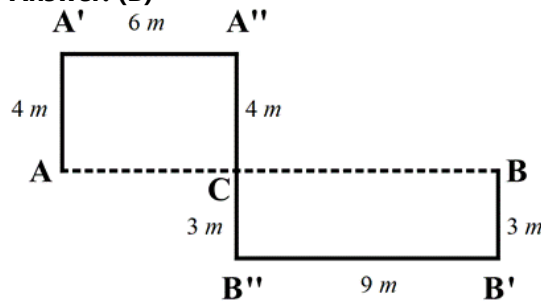
30. **Answer: (B)**

माना समलंब की ऊँचाई 'h' सेमी है।
 समलंब का क्षेत्रफल = $(1/2) \times$ इसकी समानांतर भुजाओं की लंबाई का योग \times ऊँचाई
 अतः, $\{(4 + 8) \times h\}/2 = 9$
 या, $h = 18/12 = 1.50$
 अतः समलंब की ऊँचाई = 1.50 सेमी

इसलिए विकल्प b सही है।

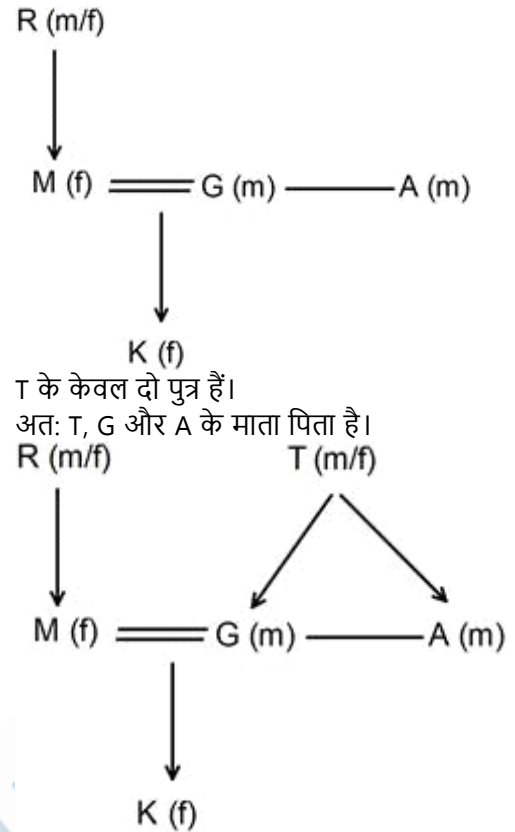
Reasoning and General Intelligence

31. **Answer: (C)**
(C) सही दर्पण छवि है।
@98&φ←∠δΣ→£ 3←76Δ→φ88e@
32. **Answer: (B)**
B सही पैटर्न देता है जो दिए गए कट पेपर को खोलने पर प्राप्त होगा।
33. **Answer: (A)**
 $2^2 + 7^2 = 53$
 $8^2 + 4^2 = 80$
 $9^2 + 6^2 = 117$
34. **Answer: (D)**
 $E + 3 = H$
 $G + 4 = K$
 $I + 5 = N$
 $K + 6 = Q$
So for JLNP
 $J + 3 = M$
 $L + 4 = P$
 $N + 5 = S$
 $P + 6 = V$
35. **Answer: (B)**

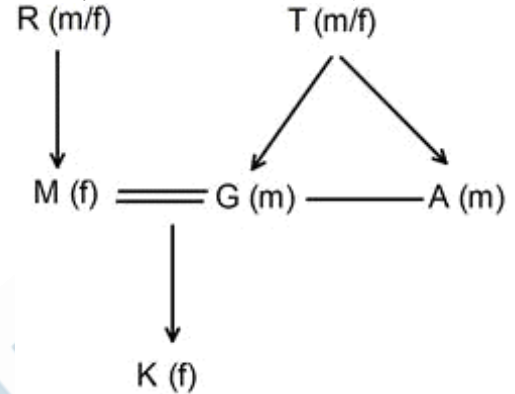


यहाँ, $A''C = 4m$
 $BB' = B''C = (AC)/2 = 6/2 = 3m$.
अतः दोनों द्वारा चली गई दूरियों का अंतर = $(3 + 3 + 9) - (6 + 4 + 4) = 15 - 14 = 1m$

36. **Answer: (D)**
K का पिता G, A का भाई है।
A, जो एक पुरुष है, उसका केवल एक भाई है।
हम पाते हैं,
G (m) ——— A (m)
↓
K (m/f)
M, जो A की भाभी है, R की पुत्री है।
और, K, R की पोती/नातिन है।
इसलिए, R या तो G या K की माता का माता-पिता होना चाहिए।
अतः M, G की पत्नी है और K की माता है।



T के केवल दो पुत्र हैं।
अतः T, G और A के माता पिता है।



अतः M, T की बहू है।

37. **Answer: (D)**
cure and heal = 2 1 9
heal the scar = 5 0 9
heal = 9
अतः, 'heal' का कोड = '9'.
38. **Answer: (B)**
RETAIN में छह अक्षर होते हैं - $(6 \times 6) - (6 + 6) = 36 - 12 = 24$
BESIDES में सात अक्षर होते हैं - $(7 \times 7) - (7 + 7) = 49 - 14 = 35$
PROCEDURE में नौ अक्षर हैं - $(9 \times 9) - (9 + 9) = 81 - 18 = 63$
इसी तरह,
GIVEN में पाँच अक्षर होते हैं - $(5 \times 5) - (5 + 5) = 25 - 10 = 15$
39. **Answer: (A)**
आपस में बदलने के बाद, हम प्राप्त करते हैं:
 $120 \div 3 + 11 \times 4 - 14 = 100 - 15 \times 26 \div 13$
LHS = $120 \div 3 + 11 \times 4 - 14$
= $40 + 44 - 14$
= 70
RHS = $100 - 15 \times 2$
= $70 = \text{LHS}$.
40. **Answer: (D)**
17 सितंबर, 2012 = (2011 वर्ष + 1/1/2012 से 17/9/2012 तक की अवधि)
400 वर्षों में विषम दिनों की संख्या = 0
इसलिए,
2000 वर्षों में विषम दिनों की संख्या = 0
11 वर्ष = 9 सामान्य वर्ष + 2 लीप वर्ष (जैसा कि हर चार वर्ष में लीप वर्ष होता है)

11 वर्षों में विषम दिनों की संख्या = $9 \times 1 + 2 \times 2 = 13$

2012 लीप ईयर था।

जनवरी	फरवरी	मार्च	अप्रैल	मई	जून	जुलाई	अगस्त	सितम्बर
31	29	31	30	31	30	31	31	17

$31 + 29 + 31 + 30 + 31 + 30 + 31 + 31 + 17 = 261$ दिन

261 दिन = 37 सप्ताह + 2 दिन = 2 विषम दिन

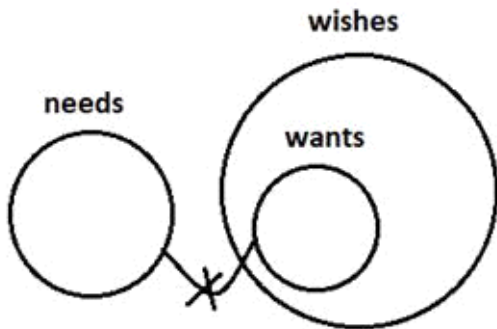
विषम दिनों की कुल संख्या = $0 + 13 + 2 = 15 = 7 \times 2 + 1 = 1$ विषम दिन

तो, दिया गया दिन सोमवार था।

41. **Answer: (D)**

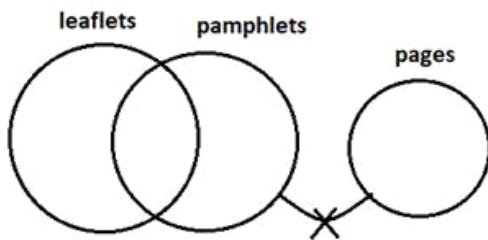
प्रत्येक फलक एक घन में चार अन्य फलकों के निकट है। दिए गए संयोजनों में, 6, u, 8, s और t के आसन्न हैं। अतः यदि '6' घन के शीर्ष पर है तो '4' निचले फलक पर होगा।

42. **Answer: (A)**



I. कुछ विशेष, नीड्स नहीं हैं। तो, I अनुसरण करता है।
II. कोई नीड, विश नहीं हैं। अतः II अनुसरण नहीं करता है।

43. **Answer: (D)**



सभी पैम्फलेट के लीफलेट होने की संभावना है लेकिन निश्चित सत्य नहीं है। तो, I अनुसरण करता है। कोई पेज, लीफलेट नहीं हो सकता है। कुछ लीफलेट, पेज भी हो सकते हैं। तो, या तो II या III अनुसरण करता है।

44. **Answer: (C)**

B _____ H _____ N _____ T _____ Z

E _____ I _____ M _____ Q _____ U

F _____ J _____ N _____ R _____ V

NMN is the missing term.

45. **Answer: (C)**

$12 + 6 = 18$, अंकों का योग = $1 + 8 = 9$

$56 + 2 = 58$, अंकों का योग = $5 + 8 = 13$

इसी तरह,

$17 + 8 = 25$, अंकों का योग = $2 + 5 = 7$

46. **Answer: (D)**

केवल दो बॉक्स काले वाले से बड़े हैं।

सफेद हरे से बड़ा है।

काला हरा और सफेद दोनों से छोटा होता है।

हम पाते हैं,

_____ < _____ < _____ < काला < हरा < सफेद

लाल कम से कम दो बक्सों से बड़ा है।

संतरा लाल और पीले रंग से छोटा होता है।

हम पाते हैं,

नारंगी < पीला < लाल < काला < हरा < सफेद

47. **Answer: (C)**

विकल्प (C) विषम है क्योंकि यह उसी तर्क का पालन नहीं करता है जैसा कि अन्य तीन विकल्पों का पालन करता है।

$8^2 + 6 = 64 + 6 = 70$

$13^2 + 6 = 169 + 6 = 175$

$11^2 + 6 = 121 + 6 = 127$

48. **Answer: (B)**

अधिकांश एथलीट तैराक हैं और कुछ तैराक कलाकार हैं।

तो, कुछ एथलीट कलाकार हो भी सकते हैं और नहीं भी।

(I) निश्चित रूप से निष्कर्ष नहीं निकाला जा सकता है।

चूंकि अधिकांश एथलीट तैराक हैं, कुछ तैराक निश्चित रूप से एथलीट हैं। तो, (II) निष्कर्ष निकाला जा सकता है।

इसलिए, (B) सही विकल्प है।

49. **Answer: (C)**

दुर्घटना-चोट-फिजियोथेरेपिस्ट-नुस्खे-दवा-आराम।

50. **Answer: (D)**

_____ (आठ) पद हैं।

O तीन स्थान बाईं ओर, फिर दो स्थान दाईं ओर, फिर तीन स्थान बाईं ओर, और इसी तरह आगे बढ़ रहा है।

तो, अगला पद है: BOBBBBBB (BBBBOBBB से 3 स्थानों को बाईं ओर स्थानांतरित)।

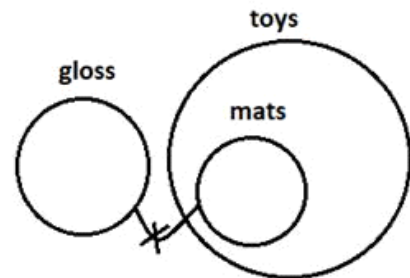
51. **Answer: (A)**

A का सामने से स्थान = 56

कुल = 110

कतार के अंत से A का स्थान = $110 - 56 + 1 =$ अंत से 55वां।

52. **Answer: (B)**



सभी मैट्स, टॉयज हैं। तो, I अनुसरण करता है।

कोई ग्लॉस, मैट्स नहीं है। तो, II अनुसरण करता है।

अतः I और II दोनों अनुसरण करते हैं।

53. **Answer: (D)**

विदेशों से भारत में माल ले जाना आसान हो सकता है, उन्हें देश के भीतर एक राज्य से दूसरे राज्य में ले जाना, लेकिन उपरोक्त दो बयानों से विदेशी फर्मों द्वारा निवेश के बारे में कुछ भी अनुमान नहीं लगाया जा सकता है। इसलिए, (d) सही विकल्प है।

54. **Answer: (D)**

C(3)- F(6)- I(9) लगातार 3 के गुणज।

E(5)-J(10)-O(15) 5 के लगातार गुणज

B(2)-D(4)-F(6) 2 के क्रमागत गुणज

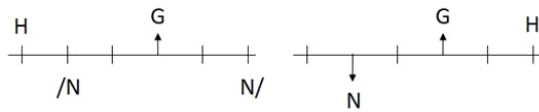
D(4)-H(8)-P(16)

55. **Answer: (A)**

बहनों का मुख उत्तर की ओर है जबकि भाइयों का मुख दक्षिण की ओर है। G के दायाँ ओर दो व्यक्ति बैठे हैं। G, W का भाई नहीं है। G का मुख दक्षिण दिशा की ओर नहीं है। इसलिए, G अवश्य ही W की बहन होगी। इसलिए, G का मुख दक्षिण दिशा की ओर नहीं है, इसलिए उसका मुख उत्तर की ओर होना चाहिए।



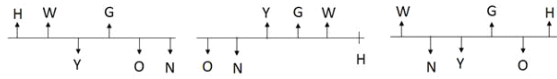
H किसी एक कोने पर बैठा है। N और G के मध्य एक व्यक्ति बैठा है, जिसका मुख विपरीत दिशाओं की ओर है।



Case 1

Case 2

O, Y के बाएं से दूसरे स्थान पर बैठा है। O का मुख दक्षिण की ओर है। W अपने भाई के ठीक दायाँ बैठी है। तो, W एक महिला है।



Case 1

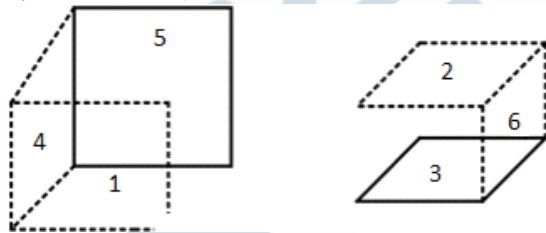
Case 2(i)

Case 2(ii)

Y न तो H और न ही N के निकट है। इसलिए, स्थिति 2(i) और 2(ii) अमान्य हैं। H, W और G बहनों का समुच्चय है।

56. **Answer: (B)**

1, 5 के विपरीत है
2, 3 के विपरीत है
6, 4 के विपरीत है



57. **Answer: (D)**

Wabash > Wackily > Wagged > Waggon > Wagner

58. **Answer: (D)**

मैट्रिक्स से, G = 01,13,20,34,42

R = 02,11,24,30,43

A = 56,68,75,89,97

V = 58,65,79,87,96

E = 59,66,77,85,98

L = 04,12,23,31,40

केवल विकल्प 42,24,75,58,59,23 में अक्षरों के कूट समान क्रम में हैं।

59. **Answer: (C)**

माना कृतिका शिखा से n वर्ष बड़ी है। फिर,

कृतिका = n + शिखा = मुकुल - n

कृतिका + शिखा + मुकुल = 63...(i)

और, मुकुल = 39 - 11 = 28

तब, कृतिका = 28 - n

और, शिखा = 28 - n - n = 28 - 2n

अब, समीकरण (i) बन जाता है,

28 - N + 28 - 2N + 28 = 63

N = 7

इसलिए, मुकुल और शिखा की वर्तमान उम्र के बीच का अंतर

= 28 - 28 - 2n

= 2n

= 2 * 7

= 14 वर्ष

60. **Answer: (B)**

400 से विभाज्य शताब्दी एक लीप वर्ष है और 4 से विभाज्य वर्ष (शताब्दी के अलावा) एक लीप वर्ष है।

3402, 4 से विभाज्य नहीं है।

3156, 4 से विभाज्य है, इसलिए एक लीप वर्ष है।

3398, 4 से विभाज्य नहीं है।

3262, 4 से विभाज्य नहीं है।

तो, 3156 एक लीप वर्ष होगा।

English Language and Comprehension

61. **Answer: (A)**

(a) is right answer. Replace FEW with LITTLE.

FEW is used to modify countable nouns such as houses, books, etc. while LITTLE is used to modify uncountable nouns such as knowledge, wisdom, etc. Here, the noun 'money' is uncountable so LITTLE will be used.

62. **Answer: (D)**

All except D are mentioned in the passage. Refer to the lines: "It is now used in everything from sporting equipment—tennis rackets, Formula 1 cars, boating sails—to personal protective equipment like bulletproof vests." Thus, (d) is the right answer.

63. **Answer: (A)**

Refer to the line: "Artificial spider silk, the researchers suggested, could make for a lighter, stronger and more breathable body armor than even Kevlar." Thus, (a) is the right answer.

64. **Answer: (C)**

Refer to the lines: "As battlefields grew farther apart and cannon fire spelled imminent death, and as the fighting grew less personal and more distanced (like the relationship between the men who called the orders to those who marched to them), men wore metal plates over their uniforms and donned metal helmets to protect against gunfire. These plates were placed over the heart, which often beat with a fear that was hardly aided by the presence of a thin metal sheet and, later, a tightly-woven polymer simply known as Kevlar." Thus, (c) is the right answer.

65. **Answer: (D)**

All except D are true. Refer to the lines: "Kevlar, or light and ultra-strong plastic polymers that are tightly woven into a flexible fabric, became popular after its discovery and implementation in the 1960s." Thus, (d) is the right answer.

66. **Answer: (A)**

Refer to the lines: "Two years ago, researchers at the Air Force Research Laboratory announced that they would be looking into an age-old fiber to more fully explore its cooling and temperature regulation properties, and its use toward strengthening current synthetic fibers." Thus, (a) is the right answer.

67. **Answer: (D)**

Refer to the line: "Unlike the Maya, Aztecs and Inca, the Calusa built their kingdom, which stretched from modern Tampa Bay to Ten Thousand Islands and as far east as Lake Okeechobee, without agriculture." Thus, (d) is the right answer.

68. **Answer: (A)**

All except A are mentioned in the passage as a feature of the Calusa empire. Refer to the lines: "Beginning roughly 2,000 years ago, the Calusa enjoyed centuries of dominance as the undisputed rulers of southwest Florida. There was a complex society with trade routes spanning hundreds of miles; a powerful military; and built works including wide canals, islands made of shells and towering buildings." Thus, (a) is the right answer.

69. **Answer: (B)**

Refer to the passage: "Now, a new study published in the Proceedings of the National Academy of Sciences reveals details of how the Calusa stockpiled live fish in massive holding pens, or "watercourts," built out of oyster shells." Thus, (b) is the right answer.

70. **Answer: (D)**

All except D are true as per the passage. Refer to the passage: "Now, a new study published in the Proceedings of the National Academy of Sciences reveals details of how the Calusa stockpiled live fish in massive holding pens, or "watercourts," built out of oyster shells...The remains of these watercourts—the largest of which is seven times larger than an NBA basketball court—are located near Fort Myers in Mound Key, where the Calusa's capital city of Calos stood for 500 years...Bones and scales excavated from the ancient holding pens belonged to mullet, pinfish and herring, all schooling species that might have been easily herded inside." Thus, (d) is the right answer.

71. **Answer: (A)**

Refer to the passage: "The watercourts could also have been an innovation prompted by a drop in sea level that occurred around 1250, potentially impacting "fish populations enough to help inspire some engineering innovation," says Karen Walker, study co-author and an archaeologist at the Florida Museum, in a statement." Thus, (a) is the right answer.

72. **Answer: (C)**

Refer to the lines: "Abu Hureyra is an important archaeological site in Syria, known for artifacts documenting early adoption of agriculture in the region." Thus, (c) is the right answer.

73. **Answer: (C)**

Refer to the lines: "The researchers think that upon entering Earth's atmosphere, the already-fractured comet likely broke up into several more pieces, many of which didn't reach the ground. Instead, they produced a string of explosions in the atmosphere known as airbursts." Thus, (c) is the right answer.

74. **Answer: (A)**

Refer to the lines: "During the excavation, archaeologists realized that there were really two sites, one on top of the other. The first was a Paleolithic settlement of hunter-gatherers, and the second was a farming town, with new buildings of a different style." Thus, (a) is the right answer.

75. **Answer: (B)**

Refer to the lines: "A new analysis of samples of soil and artifacts salvaged from the original excavation has revealed a surprising finding: The Paleolithic village at Abu Hureyra was indirectly hit and destroyed by fragments of a comet that slammed into Earth about 12,800 years ago." Thus, (b) is the right answer.

76. **Answer: (D)**

All except D are false. Refer to the lines: "The site, now under the waters of Lake Assad, was quickly excavated between 1972 and 1973 before construction of the Tabqa Dam flooded the area. During the excavation, archaeologists realized that there were really two sites, one on top of the other. The first was a Paleolithic settlement of hunter-gatherers, and the second was a farming town, with new buildings of a different style." This confirms that A, B and C are true.

Refer to the lines: "It may also be recognized as the only known human settlement to have been hit by a fragment of a comet." This confirms that (d) is false, which makes it the right answer.

77. **Answer: (B)**

(b) is the right answer. Irreverence means a lack of respect for people or things that are generally taken seriously.

Restive- (of a person) unable to remain still, silent, or submissive, especially because of boredom or dissatisfaction.

Avarice- extreme greed for wealth or material gain.
Amity- friendly relations.

78. **Answer: (C)**

(c) is the right answer.

Chutzpah-Extreme self-confidence or audacity (usually used approvingly)

Chronic-Illness persisting for a long time or constantly recurring

Citation-Quotations from or references to a book, paper, or author, especially in a scholarly work

79. **Answer: (A)**

The correct spelling of the word is ANXIOUS, and it means worried. Thus, (a) is the right answer.

80. **Answer: (D)**

RUN OUT (to be short of) will fit here as the sentence tells us how the group is short of money. Thus, (d) is the right answer.

Run after - chase. Run into - encounter. Run over - collide.

81. **Answer: (B)**

(b) is the right answer. Replace GOT with GET. Modal verbs (COULD) are followed by verbs in their base form.

82. **Answer: (B)**

The sentence is in active voice and in past perfect tense (HAD SANITISED). Follow the rules below to convert a sentence in the indicative mood to passive voice:

1. The subject clause will become the object clause. Here, the subject THE AUTHORITIES will change to the object of the verb, and the object THE PARK BENCHES will change into the subject and begin the sentence.

2. Replace HAD PROCURED with HAD BEEN SANITISED. The passive voice construction for past perfect tense is "HAD + BEEN + past participle".

83. **Answer: (A)**

We need a noun to be modified by the adjective HUMBLEST. ABODE (dwelling) will fit here as the sentence tells us how from the humblest dwelling to the most lavish mansion, our homes have been a respite from the world. Thus, (a) is the right answer.

Abide (verb) - adhere to. Adept (adjective) - skilled. Adopt (verb) - embrace.

84. **Answer: (C)**

We need a past participle form verb here to fit in the passive voice clause. UPENDED (turned upside down) will fit here as the sentence tells us how the quarantine has turned our lives upside down. Thus, (c) is the right answer.

Averted - prevented. Apprised - informed. Undertaken - tackled.

85. **Answer: (B)**
We need a base form verb to follow the modal verb MIGHT. SURPRISE (astonish) will fit here as the sentence tells us of a fact that might astonish us. Thus, (b) is the right answer.
Suppose - reckon. Command - order. Convince - persuade.
86. **Answer: (D)**
We need an adjective to modify the noun LUXURIES. UNFATHOMABLE (unimaginable) will fit here as the sentence tells us of luxuries that were unimaginable by the rulers of the past. Thus, (d) is the right answer.
Understandable - capable of being understood. Urged - convinced. Cynical - pessimistic.
87. **Answer: (A)**
We need a noun to be modified by the adjective UPPER. ECHELONS (levels) will fit here as the sentence tells us of luxuries enjoyed by the upper classes. Thus, (a) is the right answer.
Eons - ages. Aliens - extraterrestrial beings. Allures - tempts.
88. **Answer: (C)**
(c) is the right answer. The idiom BACK TO THE DRAWING BOARD means to start again because the current attempt was unsuccessful.
89. **Answer: (A)**
(a) is the right answer.
Crescendo- A gradual increase in noise
Counterfeit- Made to look like an exact copy of something in order to trick people
Demagogue- A leader or orator who espouses the cause of the common people
90. **Answer: (A)**
Option (a) is the right answer.
The sentence is in direct speech and in the interrogative mood. To convert this sentence to the indirect speech, follow these rules:
1. Remove the comma and the inverted commas.
2. Change the reporting verb SAID to ASKED. The preposition TO is redundant after ASKED, so it will be removed. Begin the indirect speech sentence with the reporting speech clause I ASKED HER.
3. Put IF between the reporting and reported speeches.
4. The second person subjective pronoun YOU will change to the third person subjective SHE.
5. The simple present tense DO YOU HAVE will change to the simple past SHE HAD.
6. Use the indicative mood syntax: Reporting speech clause (I ASKED HER) + preposition (IF) + Subject (SHE) + verb clause (HAD) + Object (SOME EXTRA MONEY).
91. **Answer: (C)**
The sentence is in active voice and in simple present tense (face). Follow the rules below to convert a sentence in the indicative mood to passive voice:
1. The subject clause will become the object clause. Here, the subject (THE COUNTRIES) will change to the object of the verb, and the object (A LOT OF RAINFALL) will change into the subject and begin the sentence.
2. Replace FACE with IS FACED. The passive voice construction for simple present tense is "is/ are + past participle".
3. Add the conjunction BY before THE COUNTRIES to link the verb with its object.
Option (c) is the right answer.
92. **Answer: (B)**
(b) is the right answer. 1-RSQP-6 is the correct sequence. (1) begins the passage by establishing the context: OPERA. It tells us that OPERA is a dramatic art form. R follows (1). It tells us about the origin of OPERA. S and Q form a pair. S tells us that OPERA involves the display of emotional content to the audience as through music and lyrics. Q compares OPERA and MUSICAL THEATER. P and (6) form a pair too. P tells us about the elements that are common between THEATER and OPERA. (6) begins with the conjunction HOWEVER, which is used to link contrasting statements. It tells us that the words in the opera are sung rather than spoken.
93. **Answer: (C)**
(c) is the right answer. The idiom ONCE IN A BLUE MOON means very rarely.
94. **Answer: (A)**
Option (a) is the right answer.
The sentence is in direct speech and in the indicative mood. To convert this sentence to the indirect speech, follow these rules:
1. Remove the comma and the inverted commas.
2. Begin the indirect speech sentence with the reporting speech clause THE BOY SAID.
3. Put THAT between the reporting and reported speeches.
4. The first person subjective pronoun I and possessive pronoun MY will change to the third person subjective HE and possessive HIS respectively.
5. The modal verb WILL will change to WOULD. Modal verbs such as will, would, can, etc. always take the base form of the main verb, so GO will remain unchanged.
95. **Answer: (C)**
GO FOR (choose) will fit here as the sentence tells us what kind of meat products to choose. Thus, (c) is the right answer.
Go off - explode. Go out - leave. Go into - enter.
96. **Answer: (C)**
DORMANT-temporarily inactive. ACTIVE is the antonym.
ILLICIT-forbidden by law, rules, or custom; MILD- not severe, serious, or harsh; RIGID-unable to bend or be forced out of shape; not flexible.
97. **Answer: (B)**
Option (b) is the right answer.
The sentence is in direct speech and in the indicative mood. To convert this sentence to the indirect speech, follow these rules:
1. Remove the comma and the inverted commas.
2. Begin the indirect speech sentence with the reporting speech clause THE WOMAN SAID.
3. Put THAT between the reporting and reported speeches.
4. The first person subjective pronoun I will change to the third person subjective SHE.
5. Replace the simple past tense WENT TO THE STORE AFTER THE MOVIES with the past perfect HAD GONE TO THE STORE AFTER THE MOVIES.
98. **Answer: (A)**
We need a noun to be modified by the adjective GREAT. SOURCES (origins) will fit here as the sentence tells us how the caves are one of Africa's greatest sites where fossils have been found. Thus, (a) is the right answer.
Spurs - pushes. Surmises - speculates. Spears - a long pointed weapon.
99. **Answer: (C)**
We need a noun here to form the subject of the verb BEGAN. EXCAVATIONS (the act of digging up something in search of fossils or remains) will fit here as the sentence tells us of the species discovered during the digs. Thus, (c) is the right answer.
Expirations - terminations. Excitement - intrigue. Expeditions - trips.
100. **Answer: (B)**

We need a gerund to form the object of the preposition BY. MEASURING (calculating) will fit here as the sentence tells us how the decay of radioactive elements is calculated to date the fossils. Thus, (b) is the right answer.

CALCULATION is a noun. Ensuring - making sure of something. Seizing - grabbing.

101. **Answer: (C)**

We need a past participle form verb to fit in the present perfect tense construction HAVE + VERB. COLLAPSED (fallen) will fit here as the sentence tells us how the older fossil-filled sections have fallen into lower areas. Thus, (c) is the right answer.

DESCENT is a noun. Categorized - sorted. Conspired - plotted secretly.

102. **Answer: (D)**

We need a verb here to link the subject and the object. DEFIES (goes against) will fit here is the sentence tells us how the landscape does not favour easy reconstruction. Thus, (d) is the right answer.

Denigrates - criticises. Divides - fragments. Deploys - makes use of.

103. **Answer: (B)**

(B) is the right answer. 1-QRSP-6 is the correct sequence. (1) establishes the subject of the passage: STEVE. It tells us that Steve was born in Tokyo in 1950. Q follows (1). It tells us that he moved to LONDON with his parents when he was 5 years old. R follows Q. The pronoun THERE tells us that the sentence talks about LONDON. It tells us that Steve started going to school in London. S follows R. It tells us that he lived in England for 2 years and then went to Jordan where he stayed for the next ten years. P follows S. It tells us that he moved to Cyprus where he took admission in the Mediterranean University. 6 tells us that he did not succeed academically so he returned to Jordan.

104. **Answer: (C)**

(c) is the right answer. LACONIC means (of a person, speech, or style of writing) using very few words. CONCISE is the synonym.

CONCEITED- excessively proud of oneself; vain.

POMP- ceremony and splendid display.

DEMENTED- behaving irrationally due to anger, distress, or excitement.

105. **Answer: (B)**

(B) is the right answer. We need an adjective to modify the noun JUDGE. The sentence seeks to convey that the criminal asked the judge to grant him parole but the judge did not listen to him and gave him a life sentence. ADAMANT fits contextually. If someone is ADAMANT about something, they are determined not to change their mind about it. ONEROUS- (of a task or responsibility) involving a great deal of effort, trouble, or difficulty.

TIMID- showing a lack of courage or confidence; easily frightened.

DAUNTLESS- showing fearlessness and determination.

General Awareness

106. **Answer: (D)**

चंपा नदी ने मगध और अंग के महाजनपदों का सीमांकन किया।

अथर्ववेद में पहली बार अंग का उल्लेख मिलता है। प्राचीन अंग के अंतिम स्वतंत्र शासक ब्रह्मदत्त की बिंबिसार ने हत्या कर दी थी।

107. **Answer: (C)**

4 मिनट किन्हीं दो क्रमागत देशांतरों के बीच के समय का अंतर है।

108. **Answer: (A)**

संविधान के अनुच्छेद 72 के तहत, राष्ट्रपति को किसी भी अपराध के लिए दोषी ठहराए गए किसी भी व्यक्ति की सजा को माफ करने, राहत देने, राहत देने या छूट देने या निलंबित करने, हटाने या कम करने की शक्ति होगी, जहां सजा मौत की सजा है।

क्षमा: यह सजा और दोषसिद्धि दोनों को हटा देता है और अपराधी को सभी वाक्यों, दंडों और अयोग्यताओं से पूरी तरह से मुक्त कर देता है।

कम्यूटेशन: यह हल्के रूप के लिए सजा के एक रूप के प्रतिस्थापन को दर्शाता है। उदाहरण के लिए, मौत की सजा को कठोर कारावास में बदला जा सकता है, जिसे बदले में साधारण कारावास में बदला जा सकता है।

छूट: इसका अर्थ है कि इसके चरित्र को बदले बिना वाक्य की अवधि को कम करना। उदाहरण के लिए, दो साल के कठोर कारावास की सजा को एक साल के कठोर कारावास में बदला जा सकता है।

राहत: यह किसी विशेष तथ्य, जैसे किसी अपराधी की शारीरिक अक्षमता या महिला अपराधी की गर्भावस्था के कारण मूल रूप से दी गई सजा के स्थान पर कम सजा देने को दर्शाता है।

रिप्राइव: इसका तात्पर्य अस्थायी अवधि के लिए किसी सजा (विशेषकर मृत्यु) के निष्पादन पर रोक लगाना है। इसका उद्देश्य दोषी को राष्ट्रपति से क्षमा या परिवर्तन प्राप्त करने के लिए समय देना है।

109. **Answer: (A)**

चंपारण सत्याग्रह के विरुद्ध था। तिनकठिया प्रणाली के तहत, किरायेदार को लंबी अवधि के दौरान अपनी जोत के तीन कट्टे प्रति बीघा (भूमि का 3/20वां) पर नील की खेती करनी पड़ती थी और लिखित समझौते के अनुसार इसके लिए मूल्य प्राप्त करने का हकदार था।

चंपारण ऐतिहासिक महत्व का क्षेत्र है। चंपारण में ही महात्मा गांधी ने दक्षिण अफ्रीका से लौटने के बाद, भारतीय धरती पर सत्याग्रह के अपने नए हथियार का परीक्षण किया, जिसे उन्होंने विदेशों में बनाया था। तिनकठिया प्रणाली

110. **Answer: (A)**

पूर्व विदेश सचिव निरुपमा राव ने "द फ्रैक्चर्ड हिमालय: हाउ द पास्ट शैडोज द प्रेजेंट इन इंडिया-चाइना रिलेशंस" नामक एक नई पुस्तक लिखी है। पुस्तक वाइकिंग प्रेस, पेंगुइन रैंडम द्वारा प्रकाशित की गई है।

पुस्तक दर्शाती है कि कैसे भारत और चीन के बीच विवाद की उत्पत्ति एक जीवित इतिहास का हिस्सा बनती है जो आज उनके टूटे हुए संबंधों को आकार देती है।

111. **Answer: (A)**

मौद्रिक नीति अधिनियम में निर्दिष्ट लक्ष्यों को प्राप्त करने के लिए अपने नियंत्रण में मौद्रिक साधनों के उपयोग के संबंध में केंद्रीय बैंक की नीति को संदर्भित करती है। भारतीय रिजर्व बैंक (RBI) मौद्रिक नीति के संचालन की जिम्मेदारी के साथ निहित है।

112. **Answer: (D)**

उत्तर प्रदेश में कोविड को नियंत्रित करने में आंगनबाड़ी कार्यकर्ताओं ने अहम भूमिका निभाई है। इसलिए, उनके काम को और अधिक कुशल और आसान बनाने के लिए

राज्य सरकार ने उन्हें स्मार्टफोन उपलब्ध कराने का फैसला किया है।

इस कदम से आंगनबाड़ी कार्यकर्ताओं के कामकाज में तेजी आएगी और योजनाओं के क्रियान्वयन में ज्यादा से ज्यादा पारदर्शिता आएगी।

113. **Answer: (C)**

डिस्कवरी ऑफ इंडिया भारत के पहले प्रधान मंत्री पंडित जवाहरलाल नेहरू द्वारा 1942-1945 में अहमदनगर किले में कैद के दौरान भारत की स्वतंत्रता से पहले ब्रिटिश राज के दौरान औपनिवेशिक अधिकारियों द्वारा वर्तमान भारतीय राज्य महाराष्ट्र में लिखी गई थी।

महात्मा गांधी द्वारा लिखित कुछ महत्वपूर्ण पुस्तकें हैं:

- हिंद स्वराज या भारतीय गृह नियम (1909)
- दक्षिण अफ्रीका में सत्याग्रह (1924, अंग्रेजी अनुवाद 1928)
- एक आत्मकथा या सत्य के साथ मेरे प्रयोगों की कहानी (1927)
- सत्य ही ईश्वर है
- सभी पुरुष भाई हैं
- आहार और आहार सुधार
- गांधी की आत्मकथा- संक्षिप्त
- दक्षिण अफ्रीका में सत्याग्रह

114. **Answer: (C)**

फासीवाद की स्थापना प्रथम विश्व युद्ध के दौरान इतालवी राष्ट्रीय संघवादियों द्वारा की गई थी, जिन्होंने वामपंथी संगठनात्मक रणनीति और दक्षिणपंथी राजनीतिक विचारों दोनों को आकर्षित किया था। 1920 के दशक की शुरुआत में इतालवी फासीवाद दाईं ओर चला गया।

115. **Answer: (C)**

केंद्रीय सूचना और प्रसारण मंत्रालय ने महिला सशक्तिकरण, पर्यावरण और स्थिरता, और अन्य सहित विभिन्न विषयों पर प्रेरणादायक भारतीयों की सुंदर कहानियों को सामने लाने के लिए नेटफ्लिक्स के सहयोग से बनाई गई एक लघु वीडियो श्रृंखला 'आजादी की अमृत कहानी' लॉन्च की है। दोनों ने वीडियो के पहले सेट का निर्माण करने के लिए सहयोग किया है जिसमें पूरे भारत से सात महिला चेंजमेकर्स शामिल हैं जो कांच की छत को तोड़ने में अपने अनुभव साझा करते हैं।

सात महिलाएं परिवर्तन-निर्माता:

- पिथौरागढ़ की पद्म पुरस्कार विजेता पर्यावरणविद् बसंती देवी कोसी नदी को पुनर्जीवित करने में उनके योगदान के लिए जानी जाती हैं।
- 2017 में पांच दिनों में दो बार माउंट एवरेस्ट फतह करने वाली दुनिया की पहली महिला होने के लिए पद्म श्री से सम्मानित अंशु जमसेनपा।
- भारत में पहली महिला अग्निशामक हर्षिनी कान्हेकर भी लॉन्च में मौजूद थीं।
- पूनम नौटियाल, एक स्वास्थ्य कार्यकर्ता जो उत्तराखंड के बागेश्वर जिले में मीलों पैदल चलकर सभी को टीका लगाती है।
- टेसी थॉमस, भारत में मिसाइल परियोजना का नेतृत्व करने वाली पहली महिला वैज्ञानिक हैं।
- तन्वी जगदीश, भारत की पहली प्रतिस्पर्धी महिला स्टैंड-अप पैडलबोर्डर।
- आरोही पंडित, दुनिया की सबसे कम उम्र की और पहली महिला पायलट हैं, जिन्होंने एक हल्के-फुल्के विमान

में अटलांटिक महासागर और प्रशांत महासागर को अकेले पार किया।

116. **Answer: (A)**

रैले आयोग की नियुक्ति सर थॉमस रैले की अध्यक्षता में 27 जनवरी 1902 को भारत में विश्वविद्यालयों की स्थिति और संभावनाओं की जांच करने और उनके संविधान और कामकाज में सुधार के प्रस्तावों की सिफारिश करने के लिए की गई थी।

117. **Answer: (D)**

केंद्रीय सूचना और प्रसारण मंत्री श्री अनुराग ठाकुर ने हाल ही में पहले हिमालयन फिल्म महोत्सव का उद्घाटन किया है। पांच दिवसीय इस उत्सव का आयोजन 24 से 28 सितंबर 2021 तक लद्दाख के लेह में किया जा रहा है। शेरशाह फेस्टिवल की ओपनिंग फीचर फिल्म है। फिल्म परमवीर चक्र पुरस्कार विजेता कैप्टन विक्रम बत्रा पर आधारित है। महोत्सव के उद्घाटन सत्र में शेरशाह फिल्म के निर्देशक विष्णुवर्धन और मुख्य अभिनेता सिद्धार्थ मल्होत्रा शामिल हुए।

118. **Answer: (B)**

2011 की जनगणना के परिणामों के अनुसार, केरल राज्य का लिंगानुपात 1084 है। 2001 की जनगणना की तुलना में, लिंगानुपात में 26 अंकों का सुधार हुआ है। उच्चतम लिंगानुपात कन्नूर जिले (1136) में है जबकि सबसे कम लिंगानुपात इडुक्की जिले (1006) में दर्ज किया गया है।

119. **Answer: (D)**

सार्वजनिक वितरण प्रणाली (PDS): सार्वजनिक वितरण प्रणाली (PDS) सस्ती कीमतों पर खाद्यान्न के वितरण के माध्यम से कमी के प्रबंधन की एक प्रणाली के रूप में विकसित हुई। पिछले कुछ वर्षों में, PDS देश में खाद्य अर्थव्यवस्था के प्रबंधन के लिए सरकार की नीति का एक महत्वपूर्ण हिस्सा बन गया है। चूंकि हरित क्रांति के बाद राष्ट्रीय कृषि उत्पादन में वृद्धि हुई थी, पीडीएस की पहुंच आदिवासी ब्लॉकों और 1970 और 1980 के दशक में गरीबी की उच्च घटनाओं वाले क्षेत्रों तक बढ़ा दी गई थी।

जून, 1997 में, भारत सरकार ने गरीबों पर ध्यान केंद्रित करते हुए लक्षित सार्वजनिक वितरण प्रणाली (TPDS) शुरू की।

पुनर्निर्माण सार्वजनिक वितरण प्रणाली (RPDS) जून 1992 में शुरू की गई थी ताकि PDS को मजबूत और सुव्यवस्थित करने के साथ-साथ दूर-दराज, पहाड़ी, दूरस्थ और दुर्गम क्षेत्रों में इसकी पहुंच में सुधार किया जा सके जहां गरीबों का एक बड़ा वर्ग रहता है।

120. **Answer: (A)**

विक्टोरिया मेमोरियल:

विक्टोरिया मेमोरियल कोलकाता के प्रसिद्ध और खूबसूरत स्मारकों में से एक है। इसे 1906 और 1921 के बीच महारानी विक्टोरिया के भारत में 25 साल के शासन के उपलक्ष्य में बनाया गया था। 1857 के सिपाही विद्रोह के बाद, ब्रिटिश सरकार ने सीधे देश के नियंत्रण की बागडोर अपने हाथ में ले ली और 1876 में ब्रिटिश संसद ने विक्टोरिया को भारत की महारानी बना दिया। 1901 में उनकी मृत्यु के साथ उनका शासन समाप्त हो गया।

लॉर्ड कर्जन, जो उस समय भारत के वायसराय थे, ने जनवरी 1901 में महारानी विक्टोरिया की मृत्यु पर उनके लिए एक 'शानदार' स्मारक स्थापित करने का सवाल जनता के सामने रखा। भारत के राजकुमारों और लोगों ने

धन के लिए उनकी अपील का उदारतापूर्वक जवाब दिया और लॉर्ड कर्जन ने इस स्मारक के निर्माण की कुल लागत एक करोड़, पांच लाख रुपये (1,05,00,000 रुपये) की स्वैच्छिक सदस्यता से प्राप्त की। वेल्स के राजकुमार, किंग जॉर्ज पंचम ने 4 जनवरी, 1906 को आधारशिला रखी और इसे औपचारिक रूप से 1921 में जनता के लिए खोल दिया गया।

121. **Answer: (C)**
पंजाब हिमालय:
पश्चिमी हिमालय, जिसे पंजाब हिमालय भी कहा जाता है, विशाल हिमालय पर्वत श्रृंखला का सबसे पश्चिमी भाग है। यह मुख्य रूप से उत्तरी भारतीय उपमहाद्वीप के विवादित कश्मीर क्षेत्र में स्थित है - जिसमें भारत और पाकिस्तान द्वारा प्रशासित भाग शामिल हैं - और हिमाचल प्रदेश राज्य, भारत के उत्तर-पश्चिमी भाग में भी।
नेपाल हिमालय:
नेपाल हिमालय, पूर्व-मध्य खंड और दक्षिण-मध्य एशिया में हिमालय पर्वत श्रृंखला का सबसे ऊंचा हिस्सा, काली नदी से पूर्व में तिस्ता नदी तक लगभग 500 मील (800 किमी) तक फैला हुआ है।
कुमाऊं हिमालय:
कुमाऊं हिमालय, उत्तर भारत में हिमालय का पश्चिम-मध्य खंड, सतलुज नदी से पूर्व में काली नदी तक 200 मील (320 किमी) तक फैला हुआ है।
असम हिमालय:
असम हिमालय, महान हिमालय का पूर्वी भाग, सिक्किम राज्य (भारत) और भूटान में पूर्व की ओर, उत्तरी असम और अरुणाचल प्रदेश राज्यों (भारत) में और तिब्बत स्वायत्त क्षेत्र (चीन) के साथ सीमा पर फैला हुआ है।
122. **Answer: (A)**
भारत 12 से 15 सितंबर 2022 तक दिल्ली में विश्व डेयरी शिखर सम्मेलन (WDS) 2022 की मेजबानी करेगा। इसका आयोजन अंतर्राष्ट्रीय डेयरी महासंघ (IDF) द्वारा 'पोषण और आजीविका के लिए डेयरी' विषय के तहत किया जाएगा। यह शिखर सम्मेलन कोविड-19 महामारी के कारण दो साल के अंतराल के बाद आयोजित होने जा रहा है।
नोट: भारत ने पिछली बार वर्ष 1974 में अंतर्राष्ट्रीय डेयरी कांग्रेस की मेजबानी की थी।
123. **Answer: (D)**
जन गण मन:
कविता जनवरी 1912 में तत्वबोधिनी पत्रिका में भारत भाग्य बिधाता शीर्षक के तहत प्रकाशित हुई थी, जो तत्कालीन संपादक टैगोर के साथ ब्रह्म समाज का आधिकारिक प्रकाशन था।
124. **Answer: (D)**
सत्यशोधक समाज 24 सितंबर 1873 को पुणे, भारत में महात्मा ज्योतिबा फुले द्वारा स्थापित एक सामाजिक सुधार समाज है।
इसका उद्देश्य शूद्र और अछूत जातियों को शोषण और उत्पीड़न से मुक्त करना था।
125. **Answer: (C)**
माउंट मेरापी, इंडोनेशिया के योग्याकार्टा प्रांतों के मध्य जावा और विशेष क्षेत्र के बीच की सीमा पर स्थित एक सक्रिय स्ट्रेटोवोलकानो है। यह इंडोनेशिया का सबसे सक्रिय ज्वालामुखी है जो हाल ही में फटा था।

126. **Answer: (D)**
विश्व आर्थिक आउटलुक (WEO) अंतर्राष्ट्रीय मुद्रा कोष (IMF) की एक रिपोर्ट है जो IMF के अपने सदस्य देशों में आर्थिक विकास और नीतियों की निगरानी के प्रमुख भागों का विश्लेषण करती है।
127. **Answer: (D)**
संपूर्ण प्रतियोगिता:
पूर्ण प्रतियोगिता एक आदर्श प्रकार की बाजार संरचना है जहाँ सभी उत्पादकों और उपभोक्तकों के पास पूर्ण और सममित जानकारी होती है, कोई लेन-देन लागत नहीं होती है, जहाँ बड़ी संख्या में उत्पादक और उपभोक्ता एक दूसरे के साथ प्रतिस्पर्धा करते हैं।
पूर्ण प्रतियोगिता सैद्धांतिक रूप से एकाधिकार बाजार के विपरीत है।
चूंकि सभी वास्तविक बाजार सही प्रतिस्पर्धा मॉडल के विमान के बाहर मौजूद हैं, प्रत्येक को अपूर्ण के रूप में वर्गीकृत किया जा सकता है।
128. **Answer: (C)**
एडवर्ड जेनर एक अंग्रेजी चिकित्सक और वैज्ञानिक थे, जो चेचक के टीके, दुनिया के पहले टीके के अग्रदूत थे।
129. **Answer: (D)**
फ्रेडरिक सेंगर एकमात्र ऐसे व्यक्ति हैं जिन्हें दो बार रसायन विज्ञान में नोबेल पुरस्कार से सम्मानित किया गया है, और केवल चार दो बार के नोबेल पुरस्कार विजेताओं में से एक है।
130. **Answer: (D)**
मार्बल कैसर सल्फ्यूरिक एसिड और नाइट्रिक एसिड की क्रिया द्वारा कंचे से बनी इमारतों और मूर्तियों के क्षरण को संदर्भित करता है। प्रदूषण में मौजूद SO₂ और NO_x इन इमारतों पर जमा हो जाते हैं। ये ऑक्साइड हवा से नमी को अवशोषित करते हैं और संबंधित एसिड में परिवर्तित हो जाते हैं और जंग का कारण बनते हैं।

Computer Knowledge

131. **Answer: (D)**
डेटा बस एक कंप्यूटर या डिवाइस के भीतर एक प्रणाली है, जिसमें एक कनेक्टर या तारों का सेट होता है, जो डेटा के लिए परिवहन प्रदान करता है।
डेटा को तेजी से स्थानांतरित करने के लिए डिजिटल सिग्नल के लिए एक बस एक मार्ग है।
प्रोसेसर से जुड़ी तीन आंतरिक बसें हैं: डेटा बस, एड्रेस बस और कंट्रोल बस।
प्रत्येक डेटा बस को एक समय में इतने सारे डेटा को संभालने के लिए डिज़ाइन किया गया है।
डेटा बस जितना डेटा संभाल सकती है उसे बैंडविड्थ कहा जाता है।
132. **Answer: (A)**
एक केरी डेटाबेस तालिका या तालिकाओं के संयोजन से डेटा या जानकारी के लिए अनुरोध है।
यह डेटा संरचित केरी भाषा (SQL) द्वारा लौटाए गए परिणामों के रूप में या सचित्र, ग्राफ़ या जटिल परिणामों के रूप में उत्पन्न हो सकता है।
कई अलग-अलग केरी भाषाओं में से एक का उपयोग सरल से जटिल डेटाबेस प्रश्नों की एक श्रृंखला को करने के लिए किया जा सकता है।

SQL, सबसे प्रसिद्ध और व्यापक रूप से उपयोग की जाने वाली केरी भाषा, अधिकांश डेटाबेस व्यवस्थापकों (DBA) से परिचित है।

केरी भाषाएं फ़ंक्शन के अनुसार विभिन्न डेटा प्रकार उत्पन्न करती हैं।

उदाहरण के लिए, SQL साफ-सुथरी पंक्तियों और स्तंभों में डेटा लौटाता है और दिखने में Microsoft Excel के समान है।

133. **Answer: (B)**

एक स्टाइलस एक पेन के आकार का एक उपकरण है, जिसे ग्राफिक्स टैबलेट या टच स्क्रीन इनपुट का उपयोग करने वाले उपकरणों के साथ उपयोग करने के लिए डिज़ाइन किया गया है। इसका उपयोग स्क्रीन पर लिखने या ड्रा करने के लिए किया जाता है, ठीक उसी तरह जैसे आप कागज़ की शीट पर करते हैं। स्टाइलस का माउस या टचपैड के समान कार्य होता है जो पॉइंटिंग डिवाइस के रूप में होता है।

कंप्यूटिंग डिवाइस में स्टाइलस का पहला उपयोग स्टाइललेटर था, जिसे टॉम डिमोंड द्वारा 1957 में प्रदर्शित किया गया था।

प्लॉटर एक प्रिंटर की तरह एक कंप्यूटर हार्डवेयर डिवाइस है जिसका उपयोग वेक्टर ग्राफिक्स को प्रिंट करने के लिए किया जाता है।

प्रिंटर एक परिधीय मशीन है जो आमतौर पर कागज पर ग्राफिक्स या टेक्स्ट का लगातार प्रतिनिधित्व करता है।

जॉयस्टिक एक इनपुट डिवाइस है जो आमतौर पर गेमिंग अनुप्रयोगों को नियंत्रित करने के लिए उपयोग किया जाता है और ग्राफिक्स अनुप्रयोगों में उपयोग किया जाता है।

134. **Answer: (D)**

Microsoft Excel और अन्य स्प्रेडशीट प्रोग्राम में, 'Ctrl + Space' दबाने से सक्रिय सेल वाले पूरे कॉलम का चयन हो जाता है।

एक या अधिक पंक्तियों और स्तंभों का चयन करने के लिए निम्नलिखित चरणों पर विचार करें:

चरण: # 1 संपूर्ण कॉलम का चयन करने के लिए शीर्ष पर अक्षर का चयन करें या कॉलम में किसी भी सेल पर क्लिक करें और फिर Ctrl + Space दबाएं।

चरण: #2 पूरी पंक्ति का चयन करने के लिए पंक्ति संख्या का चयन करें या पंक्ति में किसी भी सेल पर क्लिक करें और फिर Shift + Space दबाएं।

चरण: #3 गैर-आसन्न पंक्तियों या स्तंभों का चयन करने के लिए, Ctrl दबाए रखें और पंक्ति या स्तंभ संख्याओं का चयन करें।

135. **Answer: (A)**

SMPS,स्विच-मोड पावर सप्लाई के लिए खड़ा है। यह एक इलेक्ट्रॉनिक बिजली की आपूर्ति है जो विद्युत शक्ति को कुशलतापूर्वक परिवर्तित करने के लिए एक स्विचिंग नियामक का उपयोग करती है। इसे स्विचिंग मोड पावर सप्लाई के नाम से भी जाना जाता है।

यह बिजली आपूर्ति इकाई (पीएसयू) है जिसका उपयोग आमतौर पर कंप्यूटर में वोल्टेज को कंप्यूटर स्वीकार्य सीमा में बदलने के लिए किया जाता है।

इस डिवाइस में पावर हैंडलिंग इलेक्ट्रॉनिक घटक हैं जो विद्युत शक्ति को कुशलता से परिवर्तित करते हैं।

एसएमपीएस समग्र बिजली हानि को कम करने के लिए एक महान बिजली रूपांतरण तकनीक का उपयोग करता है। डिवाइस स्विचिंग रेगुलेटर का उपयोग करता है जो

आउटपुट वोल्टेज को विनियमित और स्थिर करने के लिए लोड करंट को चालू और बंद करता है।

136. **Answer: (B)**

Linux UNIX पर आधारित एक मुक्त ओपन-सोर्स ऑपरेटिंग सिस्टम (OS) है जिसे 1991 में Linus Torvalds द्वारा बनाया गया था।

लिनक्स को आमतौर पर लिनक्स वितरण में पैक किया जाता है। यह सर्वर और अन्य बड़े आयरन सिस्टम जैसे मेनफ्रेम कंप्यूटर पर अग्रणी ऑपरेटिंग सिस्टम है, और TOP500 सुपर कंप्यूटर पर उपयोग किया जाने वाला एकमात्र OS है।

लिनक्स का सबसे आम उपयोग सर्वर के रूप में होता है, लेकिन इसका उपयोग डेस्कटॉप कंप्यूटर, स्मार्टफोन, ई-बुक रीडर और गेमिंग कंसोल में भी किया जाता है।

137. **Answer: (C)**

मेश टोपोलॉजी एक नेटवर्क सेटअप है जहां प्रत्येक कंप्यूटर और नेटवर्क डिवाइस एक दूसरे से जुड़े होते हैं। यह टोपोलॉजी सेटअप अधिकांश प्रसारणों को वितरित करने की अनुमति देता है, भले ही एक कनेक्शन नीचे चला जाए।

यह आमतौर पर वायरलेस नेटवर्क के लिए उपयोग की जाने वाली एक टोपोलॉजी है और इसकी विश्वसनीयता सबसे अधिक है।

यह एक स्थानीय नेटवर्क टोपोलॉजी है जिसमें इन्फ्रास्ट्रक्चर नोड्स सीधे, गतिशील और गैर-श्रेणीबद्ध रूप से अधिक से अधिक अन्य नोड्स से जुड़ते हैं।

वे आम तौर पर होम ऑटोमेशन, स्मार्ट एचवीएसी कंट्रोल और स्मार्ट बिल्डिंग जैसी चीजों के लिए उपयोग किए जाते हैं।

138. **Answer: (A)**

माइक्रोसॉफ्ट ने 24 जून, 2021 को आधिकारिक तौर पर अपना नया विंडोज ऑपरेटिंग सिस्टम 'विंडोज 11' लॉन्च किया है। इसे विंडोज की "नेक्स्ट जेनरेशन" कहा जा रहा है।

139. **Answer: (B)**

बैंडविड्थ को डेटा की क्षमता के रूप में परिभाषित किया जाता है जिसे एक विशिष्ट अवधि में स्थानांतरित किया जाना है।

यह नेटवर्क या ट्रांसमिशन माध्यम की डेटा ले जाने की क्षमता है।

यह आमतौर पर प्रति सेकंड बिट्स, मेगाबिट्स या गीगाबिट्स में व्यक्त किया जाता है।

दूरसंचार में, बैंडविड्थ उस सीमा को संदर्भित करता है जो आवृत्तियों के एक बैंड के भीतर एक संकेत देता है।

इस प्रकार की बैंडविड्थ को हर्ट्ज़ (हर्ट्ज) में मापा जाता है और इसकी गणना सिग्नल की ऊपरी और निचली आवृत्ति सीमा के बीच के अंतर को ज्ञात करके की जाती है।

140. **Answer: (D)**

एक जम्पर एक छोटा धातु कनेक्टर होता है जिसका उपयोग विद्युत सर्किट के हिस्से को बंद या खोलने के लिए किया जाता है। इसे दोहरे इन-लाइन पैकेज (DIP) स्विच के विकल्प के रूप में इस्तेमाल किया जा सकता है।

जंपर्स कंप्यूटर हार्डवेयर के साथ-साथ अन्य प्रकार के इलेक्ट्रॉनिक उपकरणों में पाए जाते हैं।

एक जम्पर में दो या दो से अधिक कनेक्टिंग पॉइंट होते हैं, जो एक इलेक्ट्रिकल सर्किट बोर्ड को रेगुलेट करते हैं।

यह एक छोटा धातु कनेक्टर है जो ऑन/ऑफ स्विच के रूप में कार्य करता है।

एक हार्डवेयर डिवाइस के लिए सेटिंग्स को कॉन्फिगर करने के लिए अक्सर कई जंपर्स का एक साथ उपयोग किया जाता है।

141. **Answer: (A)**

एक अशक्त चरित्र एक ऐसा चरित्र है जिसके सभी बिट्स शून्य पर सेट होते हैं।

इसका संख्यात्मक मान शून्य है और इसका उपयोग वर्णों की एक स्ट्रिंग के अंत का प्रतिनिधित्व करने के लिए किया जा सकता है, जैसे शब्द या वाक्यांश।

एक अशक्त चरित्र को अशक्त टर्मिनेटर के रूप में भी जाना जाता है।

यह अधिकांश प्रमुख प्रोग्रामिंग भाषाओं और ASCII और यूनिकोड सहित कई प्रमुख वर्ण सेटों में उपलब्ध है।

प्रोग्रामिंग भाषाओं और अनुप्रयोगों में नल कैरेक्टर का व्यापक कार्यान्वयन है।

व्यावहारिक अनुप्रयोगों में, जैसे डेटाबेस और स्प्रेडशीट प्रोग्राम, रिक्त वर्णों को रिक्त स्थान के लिए भराव के रूप में उपयोग किया जाता है।

142. **Answer: (D)**

एक मेटाफ़ाइल एक फ़ाइल है जिसमें किसी अन्य फ़ाइल के लिए विनिर्देश होते हैं।

मेटाफ़ाइल आमतौर पर डिजिटल ग्राफिक्स, विशेष रूप से वेक्टर छवियों से जुड़े होते हैं।

एक मेटाफ़ाइल दो अलग-अलग प्रकार की कंप्यूटर फ़ाइलों को संदर्भित कर सकता है।

पहली एक फ़ाइल है जो अन्य फ़ाइलों की सामग्री का वर्णन करती है।

इस प्रकार के मेटाफ़ाइल में मेटाडेटा हो सकता है, जो एक समूह को अन्य फ़ाइलों को परिभाषित करता है और यह बताता है कि उनमें कौन सा डेटा है।

दूसरे प्रकार की मेटाफ़ाइल का उपयोग अक्सर कंप्यूटर ग्राफिक्स में किया जाता है।

ये फ़ाइलें निर्देशांक की सूची का उपयोग करके वस्तुओं और छवियों को परिभाषित करती हैं।

143. **Answer: (C)**

माइस्पेस एक अमेरिकी सोशल नेटवर्किंग सेवा है जो 2005-2008 तक दुनिया की सबसे बड़ी सोशल नेटवर्किंग साइट थी।

माइस्पेस को पहली बार टॉम एंडरसन और क्रिस डीवॉल्फ ने जुलाई 2003 में बनाया था।

यह एक ऑनलाइन समुदाय के रूप में बनाया गया था ताकि कोई भी अपनी पत्रिकाओं, चित्रों, संगीत और रुचियों को दोस्तों के साथ जोड़ सके और साझा कर सके।

जुलाई 2005 में न्यूज कॉर्पोरेशन द्वारा माइस्पेस का अधिग्रहण किया गया था।

यह वैश्विक दर्शकों तक पहुंचने वाला पहला सामाजिक नेटवर्क था।

144. **Answer: (D)**

तीसरी पीढ़ी के कंप्यूटरों में दूसरी पीढ़ी के कंप्यूटरों में प्रयुक्त होने वाली ट्रांजिस्टर तकनीक के स्थान पर एकीकृत परिपथों का प्रयोग किया जाता था। इसकी समयावधि 1964 से 1970 के आसपास थी।

एक एकीकृत सर्किट एक छोटी सी चिप है जो तीसरी पीढ़ी के कंप्यूटरों का ट्रेडमार्क था।

तीसरी पीढ़ी के कंप्यूटरों में उपयोग किया जाने वाला एकीकृत सर्किट कंप्यूटर मेमोरी, माइक्रोप्रोसेसर या यहां तक कि एक एम्पलीफायर के रूप में काम कर सकता है। तीसरी पीढ़ी के कंप्यूटरों में उपयोग की जाने वाली तकनीक ने उन्हें पहली और दूसरी पीढ़ी के कंप्यूटरों की तुलना में अधिक विश्वसनीय, कुशल और आकार में छोटा बना दिया।

145. **Answer: (A)**

ट्रोजन हॉर्स एक प्रकार का दुर्भावनापूर्ण कोड या सॉफ्टवेयर है जो देखने में तो वैध लगता है लेकिन आपके कंप्यूटर को नियंत्रित कर सकता है।

इसे आपके डेटा या नेटवर्क को नुकसान पहुंचाने, बाधित करने, चोरी करने या सामान्य रूप से कुछ अन्य हानिकारक कार्रवाई करने के लिए डिज़ाइन किया गया है। यह आपको बरगलाने के लिए एक प्रामाणिक एप्लिकेशन या फ़ाइल की तरह काम करता है।

यह आपको आपके डिवाइस पर मैलवेयर लोड करने और निष्पादित करने के लिए धोखा देने का प्रयास करता है।

जब उपयोगकर्ता प्रोग्राम निष्पादित करता है, तो मैलवेयर अन्य फ़ाइलों में फैल सकता है और आपके कंप्यूटर को नुकसान पहुंचा सकता है।

146. **Answer: (A)**

रीसायकल बिन एक ऐसा स्थान है जहां विंडोज 95 के बाद से हटाई गई फ़ाइलें या फ़ोल्डर्स माइक्रोसॉफ्ट विंडोज के हर संस्करण में अस्थायी रूप से संग्रहीत हैं।

रीसायकल बिन उपयोगकर्ताओं को विंडोज में हटाई गई फ़ाइलों को पुनर्प्राप्त करने की अनुमति देता है।

हटाई गई फ़ाइलें हार्ड ड्राइव से स्थायी रूप से नहीं हटाई जाती हैं, बल्कि रीसायकल बिन में भेजी जाती हैं, जब तक कि वे बहुत बड़ी न हों। रीसायकल बिन में फ़ाइलों को उनके मूल स्थान पर पुनर्स्थापित किया जा सकता है।

जब वे रीसायकल बिन में हों तो उनका सीधे उपयोग नहीं किया जा सकता है।

147. **Answer: (C)**

एक उच्च स्तरीय भाषा (HLL) एक प्रोग्रामिंग भाषा है जो एक प्रोग्रामर को ऐसे प्रोग्राम लिखने में सक्षम बनाती है जो कमोबेश एक विशेष प्रकार के कंप्यूटर से स्वतंत्र होते हैं।

ऐसी भाषाओं को उच्च-स्तरीय माना जाता है क्योंकि वे मानव भाषाओं के करीब हैं और मशीनी भाषाओं से आगे हैं। उच्च-स्तरीय भाषाओं को मानव ऑपरेटर या प्रोग्रामर द्वारा उपयोग किए जाने के लिए डिज़ाइन किया गया है।

बेसिक, C/C++, फोरट्रान, प्रोलॉग और जावा उच्च स्तरीय भाषाओं के लोकप्रिय उदाहरण हैं।

असेंबली भाषाओं को निम्न-स्तर माना जाता है क्योंकि वे मशीनी भाषाओं के बहुत करीब हैं।

148. **Answer: (C)**

एक सिंटेक्स त्रुटि एक प्रोग्रामर द्वारा दर्ज की गई कोडिंग या प्रोग्रामिंग भाषा के सिंटेक्स में एक त्रुटि है।

सिंटेक्स त्रुटियों को एक सॉफ्टवेयर प्रोग्राम द्वारा पकड़ा जाता है जिसे कंपाइलर कहा जाता है।

प्रोग्राम को संकलित करने और फिर चलाने से पहले प्रोग्रामर को उन्हें ठीक करना होगा।

सिंटेक्स त्रुटियाँ उन त्रुटियों से भिन्न होती हैं जो रन टाइम के दौरान प्रोग्राम को प्रभावित करती हैं।

सिंटेक्स त्रुटियाँ छोटी व्याकरण संबंधी गलतियाँ होती हैं, जो कभी-कभी एक वर्ण तक सीमित होती हैं।

उदाहरण के लिए, किसी पंक्ति के अंत में एक लापता अर्धविराम या किसी फंक्शन के अंत में एक अतिरिक्त ब्रैकेट एक सिंटैक्स त्रुटि उत्पन्न कर सकता है।

149. **Answer: (D)**

एक फ्लो चार्ट एक प्रकार का आरेख है जो विभिन्न प्रतीकों का उपयोग करके एक प्रक्रिया का प्रतिनिधित्व करता है जिसमें चरणों या घटनाओं के अनुक्रम के बारे में जानकारी होती है।

इनमें से प्रत्येक प्रतीक प्रक्रिया की प्रवाह दिशा को दर्शाने के लिए तीरों से जुड़ा हुआ है।

यह एक प्रक्रिया या कार्यक्रम का विश्लेषण, सुधार, दस्तावेज और प्रबंधन करने के लिए उपयोग की जाने वाली पद्धति है।

फ्लोचार्ट का उपयोग आमतौर पर व्यावसायिक योजनाओं को विकसित करने, एल्गोरिदम को डिजाइन करने और समस्या निवारण चरणों को निर्धारित करने में किया जाता है।

फ्लो चार्ट का उद्देश्य लोगों को एक परियोजना या प्रक्रिया के साथ काम करते समय एक सामान्य भाषा या संदर्भ बिंदु प्रदान करना है।

150. **Answer: (C)**

एक पैच एक सॉफ्टवेयर अपडेट होता है जिसमें एक निष्पादन योग्य प्रोग्राम के कोड में डाला गया कोड होता है।

यह सॉफ्टवेयर का एक छोटा सा टुकड़ा है जिसका उपयोग किसी ऑपरेटिंग सिस्टम या सॉफ्टवेयर प्रोग्राम के भीतर किसी समस्या को ठीक करने के लिए किया जाता है, जिसे आमतौर पर बग कहा जाता है।

इन महत्वपूर्ण अद्यतनों को छोड़ देने से आपका कंप्यूटर, फोन या अन्य उपकरण मैलवेयर के हमलों के लिए खुला रह सकता है, जिसे रोकने के लिए पैच का इरादा है।

विंडोज़ में, अधिकांश पैच, फिक्स और हॉटफिक्स विंडोज़ अपडेट के माध्यम से उपलब्ध कराए जाते हैं।

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