

TEST FORM NUMBER

INSTRUCTIONS TO CANDIDATE

Maximum Marks: 50 Total Questions: 50 Time Allowed: 45 Min.

(20 Questions)

Read the following instructions carefully before you begin to attempt the questions.

- (1) This booklet contains 50 questions in all comprising the following two parts.
 - Part-(I) : English
 - Part-(II): RAGA
 (30 Questions)
- (2) All the questions are compulsory and carry equal marks.
- (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) There is no negative marking.
- You will be supplied the Answer-sheet separately by the invigilator. You must complete the details of Name, Roll number, Test name/Id and name of the examination on the Answer-Sheet carefully before you actually start attempting the questions. You must also put your signature on the Answer-Sheet at the prescribed place. These instructions must be fully complied with, failing which, your Answer-Sheet will not be evaluated and you will be awarded 'ZERO' mark.
- (6) 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.
- (7) 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.
- (8) The Answer-Sheet must be handed over to the Invigilator before you leave the Examination Hall.
- (9) Failure to comply with any of the above Instructions will make a candidate liable to such action/penalty as may be deemed fit.
- (10) 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.
- (11) 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.
- (12) No rough work is to be done on the Answer-Sheet.
- (13) No candidate can leave the examination hall before completion of the exam.

NAME OF CANDIDATE: DATE : CENTRE CODE :	
ROLL No :	l(

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

1. Choose the most appropriate answer and fill in the

Plural of 'tooth' is _

(A) Teeth

(B) Tooth

- (C) Tooths (D) None of the above
- 2. Choose the correct Reported form of the sentence from the option given below.

Pinky said, "What a beautiful vase!"

- (A) Pinky exclaimed that it is a very beautiful vase.
- (B) Pinky said that it is a very beautiful vase indeed.
- (C) Pinky exclaimed that it was a very beautiful vase.
- (D) Pinky reported that it was an indeed a beautiful vase.
- 3. In the following question, out of the four alternatives, select the alternative which is the best substitute of the

A bias in favour of something.

(A) addiction

(B) disposition

(C) predilection

(D) impulse

4. Give the plural of the given word.

Series

(A) Series

(B) Serieses

(C) Seriess

(D) Seriefes

Direction (5-8): Read the passage given below and answer the questions that follow.

> People talk of memorials to him in statues of bronze or marble or pillars and thus they mock him and belie his message. What tribute shall we pay to him that he would have appreciated? He has shown us the way to live and the way to die and if we have not understood that lesson, it would be better than we raised no memorial to him, for the only fit memorial is to follow reverently in the path he showed us and to do our duty in life and in death.

> He was a Hindu and an Indian, the greatest in many generations and he was proud of being a Hindu and an Indian. To him, India was dear because she had represented throughout the ages certain immutable truths. But though he was intensely religious and came to be called the father of the Nation, which he had liberated, yet no narrow religious or national bonds confined his spirit. And so he became the greatest internationalist, believing in the essential unity of man, the underlying unity of all religions and the needs of the humanity and more especially devoting himself to the service of the poor and the distressed millions everywhere.

> His death brought more tributes that have been paid at the passing of any other human being in history. Perhaps what would have pleased him best was the spontaneous tributes that came from the people of Pakistan. On the morrow of the tragedy, all of us forgot for a while that bitterness that had crept in, the estrangement and conflict of these past months and Gandhi stood out as the beloved champion and leader of the people of India, of India as it was before partition cut up this living nation.

- 5. Which of the below sentences summarises the key idea of the passage?
 - (A) Partition of India
 - (B) Story of a Hindu man
 - (C) Tribute to Mahatma Gandhi
 - (D) None of the above

- 6. Which of the following stands TRUE as per the reading of the given passage?
 - (A) Gandhi believed in the essential unity of man, underlying unity of all religions and the needs of the humanity.
 - (B) Gandhi stood out as the beloved champion and leader of the people of Pakistan
 - (C) To Gandhi, India was dear because she had represented throughout the ages certain ugly and variable truths
 - **(D)** All of the above.
- 7. Which of the following words is the most similar in meaning to the word 'immutable' as given in the passage?

(A) Undetectable

(B) Unassailable

(C) Untouched

(D) Unyielding

8. Which of the following words is the most opposite in meaning to the word 'liberated' as given in the passage?

(A) Discharged

(B) Subjugated

(C) Comforted

(D) Extricated

In the following question, a sentence has been given in 9. Active/Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.

The national anthem is being sung by Jason.

- (A) Jason was singing the national anthem.
- (B) Jason is singing the national anthem
- (C) Jason sings the national anthem.
- (D) Jason has sung the national anthem.
- 10. In the following question, a sentence is given with a blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.

Bhartendu Harishchandra is known as ___ of modern Hindi literature as well as Hindi theatre.

(A) the (C) an

(B) a (D) No article

11.

Select the word with the correct spelling.

(A) Perverted (C) Parverted (B) Pervirted (D) Parvirted

12. Form an adjective from the given word.

Courage

(A) Encourage

(C) Courageous

(B) Cowardice (D) Courteous

13. In the following question, a sentence is given with a blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.

his father was a king, Atikant was brought up like the son of a common man.

(A) But

(B) So

(C) And

(D) Although

14. In the following question, out of the four alternatives, select the word similar in meaning to the given word.

Irresolute

(A) Undecided

(B) Angry

(C) Ignorant

(D) Firm

15. 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.

What have you drawn?

(A) What has drawn by you?

- (B) What is being drawn by you? (C) What have been drawn by you? (D) What has been drawn by you? 16. In the following question, out of the four alternatives, select the alternative which is the best substitute for the given phrase. To run away with a lover (A) Deceive (B) Cheat (C) Escape (D) Elope 17. Spot the erroneous parts, if any, in the following This is the boy (a)/ whom I think had won (b)/ the gold medal in the dance competition (c). No error (d) (A) a **(B)** b (C) c (D) d 18. Change the narration: Alisha said, "I have topped the exam". (A) Alisha said to me that she topped the exam. **(B)** Alisha told me that she has topped the exam. (C) Alisha said that she had topped the exam. (D) Alisha said to me that she topped the exam.
- 19. In the following question, a sentence is given with a blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option. Hit the nail on the _ (B) Hand (A) Head

(C) Toe

(D) Coffin

- 20. Identify the antonym of the given word. Paltry
 - (A) Common

(B) Small

(C) Considerable

(D) Meagre

21. The ratio between two numbers is 4:5. If each number is increased by 4, the ratio becomes 6:7. Find the difference between the numbers.

(A) 2

(B) 9

(C) 3

(D) 7

- Which of the following is justiciable in nature? 22.
 - (A) Fundamental Duties
 - (B) Directive principles of state policy
 - (C) Fundamental Rights
 - (D) None of these
- 23. If the ratio of perimeter and area of a square is 8:11. Find the perimeter of the square.

(A) 44

(B) 22

(C) 88

(D) 24

Of the six members of a panel sitting in a row, A is to 24. the right of C, but left of B. E is sitting left of C and right of D, who is sitting to the right of F. Find the members sitting at the two ends of the row.

(A) D, F

(B) A, B

(C) F, B

(D) F, D

- 25. According to the Indian Constitution, who is the head of the executive?
 - (A) Prime Minister
 - (B) Cabinet Secretary of Government of India
 - (C) President
 - (D) Union Home Minister

26. In the following question, select the missing number from the given alternatives.

4, 8, 16, ?, 64, 128

(A) 30 (C) 24

(B) 28 (D) 32

27. A reduction of 20% in the price of an apple enables a man to buy 10 apples more for Rs.54. The reduced price of apples per dozen is

(A) Rs. 4.32

(B) Rs. 12.96

(C) Rs. 10.80

(D) Rs. 14.40

Divide Rs 2,600 among A, B, C in the ratio $\frac{1}{2}$: $\frac{1}{4}$: 28.

Find the share of each.

(A) Rs 1,200, Rs 600, Rs 800

(B) Rs 1,200, Rs 800, Rs 600

(C) Rs 600, Rs 800, Rs 1,200

(D) Rs 800, Rs 600, Rs 1,200

29. In which state Sultanpur National Park is situated?

(A) Assam

(B) West Bengal

(C) Meghalaya

(D) Haryana

30. Which of the following wildlife sanctuaries is not located in Tamil Nadu?

- (A) Indira Gandhi Wildlife Sanctuary
- (B) Periyar Wildlife Sanctuary
- (C) Vedanthangal Wildlife Sanctuary
- (D) Mudumalai Wildlife Sanctuary
- 31. Magnetism at the centre of a bar magnet is _

(A) high

(B) maximum

(C) around- zero

(D) minimum or maximum

32. In the following question, select the missing number from the given series.

1, 8, 29, 92, 281, ?

(A) 567

(B) 628

(C)776

(D) 848

In the following question, select the odd word pair from 33. the given alternatives.

(A) Head: Brain

(B) Hand: Wrist

(C) Arm : Shoulder

(D) Feet : Ankle

34. Three years ago, the average age of a family of 5 members was 17 years. A baby having been born, the average age of the family remains the same today. The age of the baby today is

(A) 3 years

(B) 2 years

(C) 1 years

(D) 1.5 years

35. Among four friends, Govind's age is twice of Krishan. Nandu's age is twice of Krishan. Gwala is 6 years elder to Krishan, but 6 years younger to Govind. Who is the youngest?

(A) Govind

(B) Krishan

(C) Nandu

(D) Cannot be determined

36. Some equations are solved on the basis of certain system. Find out the for the unsolved equation on that basis.

If $3 \times 2 \times 8 \times 4 = 632$, $2 \times 4 \times 4 \times 4 = 816$ then $3 \times 3 \times 5 \times 1 = ?$

(A) 95

(B) 45

(C) 315

(D) 184

37. In the following question, select the word which cannot be formed using the letters of the given word. TRADITIONAL

(A) RADON

(B) RATION

(C) NATIONAL

(D) TRAIN

TEST ID - AYG - 87595706

- **38.** Meghnad can do a piece of work in 45 hours. If he is joined by Jayshri, who is 50% more efficient, in what time will they together finish the work?
 - (A) 9 hours (C) 12 hours

(B) 6 hours (D) 18 hours

 Select the related word/letters/number from the given alternatives.

Iron Man Of India: Sardar Vallabhbhai Patel: : Father of the Nation:?

- (A) Mahatma Gandhi
- (B) Lokmanya Tilak
- (C) Rajeev Gandhi
- (D) Jawahar Lal Nehru
- **40.** The highest sporting honour in the country, Rajiv Gandhi Khel Ratna Award has now been renamed in the honour of whom?
 - (A) Roop Singh
- (B) Atal Bihari
- (C) Kapil Dev
- (D) Major Dhyan Chand
- **41.** Which of the following is related to "Blue Revolution"?
 - (A) Irrigation
- (B) Agriculture
- (C) Fishing
- (D) Indigo cultivation
- 42. The complete form of 'IC' in electronics is
 - (A) Internal circuit
- (B) Independent circuit
- (C) Integrated circuit
- (D) Inbuilt circuit
- 43. In a big garden 60% of the trees are coconut trees, 25% of the numbers of coconut trees are mango trees and 20% of the number of mango trees are apple trees. If the number of apple trees are 1500, then the number of trees in the garden is:

(A) 48000

- **(B)** 50000
- **(C)** 51000
- **(D)** 45000
- 44. Harsha moved his capital from____
 - (A) Thanesar, Kanauj
- (B) Delhi, Deogiri

to

- (C) Kamboj, Kanauj
- (D) Valabhi, Delhi

- **45.** The perimeter of a rectangular plot is 48 m and area is 108 m2. The dimensions of the plot are
 - (A) 36 m and 3 m
- (B) 12 m and 9 m
- (C) 27 m and 4 m
- (D) 18 m and 6 m
- **46.** If $a^2 + b^2 = ab$, then the value of $(a^3 + b^3) (a^2 + 6a + 12)$
 - (A) 0

(B) 1

(C) -1

- **(D)** 2
- **47.** If sin 1° = p and sin 89° = q, then which one of the following is correct?
 - (A) p is close to 0 and q is close to 1
 - **(B)** q < p
 - (C) p = q
 - (D) p is close to 1 and q is close to 0
- **48.** Arrange the given words in the sequence in which they occur in the dictionary.

i. Irrelevant

ii. Invincible
iv. Invariable

- iii. Irresistible
- v. Investigate
- (A) iv, ii, v, iii, i (C) ii, v, iv, i, iii
- (B) iv, v, i, iii, ii (D) iv, v, ii, i, iii
- **49.** The ratio of printed price and cost price of an article is 37/30. The shopkeeper offers a discount on a printed price and gains 11% profit on selling the article. Find the percentage of discount offered on the article.
 - (A) 11%
- **(B)** 13%
- (C) 37%
- **(D)** 10%
- **50.** Which of the following elements has the lowest melting point?
 - (A) Platinum
- (B) Sodium
- (C) Antimony
- (D) Krypton

Space for rough work





- Ans.1(A) Teeth' is the plural of 'tooth'.
- Ans.2(C) Pinky exclaimed that it was a very beautiful vase.
- Ans.3(C) Predilection means a preference or special liking for something; a bias in favour of something.
- Ans.4(A) Some nouns don't change at all when they're pluralized.
- Ans.5(C) Option 1, i.e. 'Partition of India' does not receive supportive content from the passage as only one single line has been mentioned in the passage about it. Similarly, nowhere does the passage talk about the story of a Hindu man. It does talk about Gandhi who was a Hindu man but that is not what the whole passage revolves around The key idea of the passage is to honour Gandhi after his death.
- Ans.6(A) Ans.7(D)

On reading the sentence we can infer that it is talking about fixed or unchangeable truths. Therefore, 'undetectable' does not fit the criteria as it means something which is imperceptible. Out of the other words, 'unassailable' means invulnerable and 'untouched' means unconsumed. None of these words make a good fit keeping the meaning of the sentence intact. 'Unyielding' makes the most appropriate fit to be the closest synonym to 'immutable'.

- Ans.8(B) The hint to the right answer lies in the preceding phrases 'yet no narrow religious or national bonds confined his spirit', which further indicates that the most opposite to the word 'liberated' must be negative in nature as the word 'liberated' means to be free. Out of the given options, only 'subjugated' makes a negative carrier of the meaning and makes the most opposite word to 'liberated'.
- Ans.9(B) The given sentence is the passive form of a present continuous tense. The structures for active/passive voices are:

Passive: Object + is/are/am + being + verb (IIIrd from) + by + subject.

Active: Subject + is/are/am + verb (ing) + object...So, with the help of the above structures, we can convert the given sentence into active voice:

Jason is singing the national anthem

- Ans.10(A) In the given sentence, we are referring to Bhartendu Harishchandra as the originator of Hindi literature as well as Hindi theatre. Since we are specifying him in the sentence, the correct preposition to be used here is "the".
- **Ans.11(A)** Perverted: characterized by sexually abnormal and unacceptable practices or tendencies.
- Ans.12(C) Adjective means an attribute or a characteristic of the given noun. Here, 'courage' has been given as a noun, while 'courageous', which means 'the characteristic carried by someone with courage' makes the best fit.
- Ans.13(D) Although is used for introducing a statement that makes the main statement in a sentence seem surprising and it gives the sense of 'in spite of the fact'. Here in the sentence we can guess from the context that although is required.
- Ans.14(A) The word "irresolute" means: not able to decide what to do; undecided. expresses the meaning of the word "Irresolute".
- Ans.15(D) The given question in interrogative form of present perfect tense. The structures of active/passive voice for such sentences are:

 Active: Wh-question word + has/have + verb (IIIrd form) + subject

Passive: Wh-question word + has + been + verb (IIIrd form) + by + subject

So, based on the above structure, the passive voice of the given sentence would be:

What has been drawn by you?

Ans.16(D) Elope = to run off with a lover secretly to be married, usually without the consent or knowledge of one's parents

Deceive = to persuade someone that something false is the truth, or to keep the truth hidden from someone for your own advantage Cheat = act dishonestly or unfairly in order to gain an advantage.

Escape = break free from confinement or control.

Ans.17(B) 'Whom' should be replaced by 'Who' as in the sentence it has been already mentioned about a boy.

Note: Who is used to refer to the subject of a sentence. Whom is used to refer to the object of a verb or preposition'.

- Ans.18(C) Here the sentence is in direct speech and doesn't have an object. So, reporting verb 'said' remains as it is in indirect speech. The tense is 'simple past' as marked by the use of 'topped' and is changed to past perfect 'had + topped'. She is used in place of I in the other part of the sentence.
- Ans.19(A) The complete proverb is 'Hit the nail on the head' which means find exactly the right answer.

 Ans.20(C) Paltry means small. Its opposite is
- Ans.20(C) Paltry means small. Its opposite i 'considerable'.

RAGA

Ans.21(A) Given, ratio between two numbers is 4:5.

Let the numbers be 4a and 5a respectively. Where a is any constant

Given, if each number is increased by 4, the ratio becomes 6:7

$$\frac{4a+4}{5a+4} = 6/7$$

$$\Rightarrow 28a + 28 = 30a + 24$$

$$\Rightarrow 2a = 4$$

$$\Rightarrow a = 2$$

Difference between number = 5a-4a ⇒ Difference between number = a= 2

- Ans.22(C) The Fundamental Rights are justiciable in nature because when violated the aggrieved individual can move the courts for their enforcement. Fundamental Rights and Directive Principles are non-justiciable in nature because they are not legally enforceable by the courts for their violation. Therefore, the government cannot be compelled to implement them.
- Ans.23(B) Let the side of the square be A. According to the question, $\frac{4A}{A^2} = \frac{8}{11}$ A= 11/2

A= 11/2 Perimeter = 4A = 22 Ans.24(C)

F D E C A B

- Ans.25(C) As per the Article 53 (1) of the Indian Constitution, the head of the executive is the President of India. He has all the constitutional powers and can exercise them directly or through subordinate officers.
- Ans.26(D) The pattern followed is shown below, $4 \times 2 = 8$ $8 \times 2 = 16$ $16 \times 2 = 32$

 $32 \times 2 = 64$ $64 \times 2 = 128$

Ans.27(B) A reduction of 20% in the price of an apple enables a man to buy 10 apples more for Rs. 54. It means he buys 10 apples in

(20% of 54=54/5) Rs.

∴ CP of 10 apples = Rs.(54/5) ⇒ CP of 1 apples = Rs. (54/50) ⇒ CP of 12 apples = (54/50) × 12

= Rs. 12.96

Ans.28(B) The ratio of A: B: C = 6:4:3

 $A = \frac{2600}{13} \times 6 = 1200$ $B = 200 \times 4 = 800$ $C = 200 \times 3 = 600$

- Ans.29(D) Sultanpur National Park (formerly Sultanpur Bird Sanctuary) is located at Sultanpur fifteen kilometers from Gurgaon, Haryana and 50 km from Delhi in India.
- Ans.30(B) Periyar National Park and Wildlife Sanctuary is a protected area near Thekkady in the districts of Idukki, Kottayam and Pathanamthitta in Kerala, India.
- Ans.31(C) As the middle the magnetic lines are far away from one another and at the poles are close to each other that is why at the center the magnetic force is less than the poles.
- Ans.32(D) $1 \times 3 + 5 = 8$ $8 \times 3 + 5 = 29$ $29 \times 3 + 5 = 92$ $92 \times 3 + 5 = 281$ $281 \times 3 + 5 = 848$
- Ans.33(A) The two parts in all cases are joined to one another except Head and Brain. The Brain is inside the Head and not joined to it.

 Hence, Head: Brain is the odd word pair.
- Ans.34(B) Present age of 5 members
 = (5×17+3×5) = 100 Years
 Present age of 5 members and a baby
 = 17×6 = 102 years
 Age of baby = 102-100 = 2 years.
- Ans.35(C) The order will be Govind > Gwala > Krishan > Nandu. Thus, Nandu is youngest among all.
- Ans.36(A) As, $3 \times 2 = 6$ and $8 \times 4 = 32$, $3 \times 2 \times 8 \times 4 = 632$ $2 \times 4 = 8$ and $4 \times 4 = 16$, $2 \times 4 \times 4 \times 4 = 816$ Similarly, $3 \times 3 = 9$ and $5 \times 1 = 5$, $3 \times 3 \times 5 \times 1 = 95$
- Ans.37(C) 'NATIONAL'; There is no double 'N' in the given word.
- Ans.38(D) Meghnad can do 1 unit of work in 45 hours Jayshri is 50% more efficient than Meghnad \Rightarrow Meghnad will do 1/45 of work in one hour and Jayshri will do $(1/45 + 0.5 \times 1/45) = 1/30$ \Rightarrow Together their one hour's work $= (1/45 + 1/30) = 5/90 \Rightarrow 1/18$

Together, they will complete the whole work in 18 hours.
Sardar Vallabhbhai Patel is known as the iron

- Ans.39(A) Sardar Vallabhbhai Patel is known as the iron man of India. Similarly, the father of the nation is Mahatma Gandhi.
- Ans.40(D) Major Dhyan Chand
- Ans.41(C) Blue Revolution is related to fish production, aquaculture in India.
- Ans.42(C) An integrated circuit (IC), sometimes called a chip or microchip, is a semiconductor wafer on which thousands or millions of tiny resistors,

capacitors, and transistors are fabricated. An IC can function as an amplifier, oscillator, timer, counter, computer memory, or microprocessor.

Ans.43(B) Let total number of trees in the garden be 100 unit. Number of coconut trees

= 60% of 100 = 60 unit

Number of mango trees = 25% of 60 = 15 unit. Number of apple trees = 20% of 15 = 3 unit.

According to question 3 unit = 1500 1 unit = 500 100 unit = 50000 Basic method:

If the number of trees in the garden be x

Then

 $x \times \frac{60}{100} \times \frac{25}{100} \times \frac{20}{100} = 1500$ $\Rightarrow x \times \frac{3}{5} \times \frac{1}{4} \times \frac{1}{5} = 1500$ $\Rightarrow x = 1500 \times 5 \times 4 \times 5/3 = 50000$

- Ans.44(A) Harsha (c. 590–647 CE), also known as Harshavardhana, was an Indian emperor who ruled North India from 606 to 647 CE. He belonged to Pushyabhuti dynasty. The early capital of Pushyabhuti dynasty was at Thanesar, Haryana which was moved to Kannauj, Uttar Pradesh by Harshavardana.
- Ans.45(D) P = 2(l+b) 2(l+b) = 48 l+b = 24---(i) A = lxb lxb = 108---(ii)By solving (i) and (ii)

By solving (i) and (ii), we get:

I=18m and b=6m.

Ans.46(A) $\Rightarrow a^2 + b^2 = ab$ $\Rightarrow a^2 + b^2 - ab = 0$ $\Rightarrow (a^3 + b^3)(a^2 + 6a + 12)$ $\Rightarrow (a + b)(a^2 + b^2 - ab)(a^2 + b^2 -$

⇒ $(a + b)(a^2 + b^2 - ab) (a^2 + 6a + 12)$ ⇒ $(a + b)(a^2 + 6a + 12) = 0$ Short Trick:

Here, One equation and two variable, so a and b can have infinite value : let suppose that a=0

then, $a^2 + b^2 = ab$ (a = 0) $\Rightarrow b = 0$ $\Rightarrow (a^3 + b^3) (a^2 + 6a + 12) (a = 0, b = 0)$ $\Rightarrow (a^3 + a^3)(a^2 + 6a + 12) = 0$

Ans.47(A) We know that, $\sin 0^\circ = 0$ and $\sin 90^\circ = 1$

⇒ sin 1° is close to 0 and sin 89° is close to 1 ∴ p is close to 0 and q is close to 1

Ans.48(D) Alphabetical order is:

Hence the correct order is (iv, v, ii, i, iii).

Ans.49(D) Let the printed price be Rs. y and the cost price be Rs. x

After discount, the selling price

= y × (100 - d)/100Profit = 11% \therefore (S.P - C.P)/C.P = 0.11 \therefore S.P/C.P = 1.11 y × (100 - d)]/(x × 100) = 1.11 But, y/x = 37/30 \therefore 100 - d = 1.11 × 100 × 30/37 $= 0.03 \times 100 \times 30 = 00$

 $= 0.03 \times 100 \times 30 = 90$ d = 100 - 90 = 10%

Ans.50(D) Melting point of Platinum, Sodium, Antimony and Krypton is 1,768 °C, 97.79 °C, 630.6 °C and 157.4 °C respectively. Therefore, Krypton has the lowest melting point of all these elements.



TEST FORM NUMBER

INSTRUCTIONS TO CANDIDATE

अधिकतम अंक : 50 कुल प्रश्न : 50

निर्धारित समय : 45 मिनट

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

(1) इस पुस्तिका में 50 प्रश्न हैं, जो कि कुल दो भागों में विभाजित हैं।

भाग-(I) : ENGLISH

(20 प्रश्न)

भाग- (II) : RAGA

(30 प्रश्न)

- (2) सभी प्रश्न अनिवार्य हैं तथा सबके बराबर अंक हैं।
- (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) किसी प्रश्न में नकरात्मक अंकन नहीं है।
- (5) आपको निरीक्षक द्वारा उत्तर पुस्तिका अलग से दी जाएगी। आपको प्रश्नों को हल करना प्रारम्भ करने से पहले अपना नाम, रोल नंबर, टेस्ट नाम /आईडी और /परीक्षा का नाम उत्तर—पुस्तिका पर सावधानीपूर्वक पूरा करना होगा। आपको उत्तर—पुस्तिका में निर्धारित स्थान पर अपना हस्ताक्षर भी करना होगा। इन निर्देशों का पूरी तरह से पालन किया जाना चाहिए, जिसको न करने पर आपकी उत्तर—पुस्तिका का मूल्यांकन नहीं किया जाएगा और आपको 'शून्य' अंक दिया जाएगा।
- (6) उत्तर केवल **पेंसिल या ब्लैक/ब्लू बॉल पेन** द्वा<mark>रा उ</mark>त्तर— पुस्तिका प्रासंगिक प्रश्न संख्या के सम्बंधित गोले को पूरी तरह से ब्लैक करके दिखाया जाना चाहिए।
- (7) OMR उत्तर पुस्तिका को एक मशीन द्वारा <mark>जांचा जायेगा।</mark> यदि किसी स्थिति में उपलब्ध जानकारी, आवेदन पत्र में दी गयी जानकारी से अलग पायी गयी, तो आवेदक का आवेदन निरस्<mark>त क</mark>र दिया जायेगा।
- (8) निरीक्षक की अनुमित मिलने के बाद ही कोई परीक्षा कक्ष छोड़ सकता है।
- (9) उपरोक्त में से किसी भी निर्देश का अनुपालन करने में विफल उम्मीदवार को उपयुक्त कार्यवाही / जुर्माना के लिए उत्तरदायी समझा जा सकता है।
- (10) 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।
- (11) 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 विरूद्ध उचित कार्यवाही की जायेगी और उसका आवेदन भी निरस्त किया जा सकता है।
- (12) उत्तर-पत्र पर कोई रफ काम नहीं किया जाना चाहिए।
- (13) कोई भी उम्मीदवार परीक्षा पूरा होने से पहले परीक्षा कक्ष नहीं छोड़ सकता है।

परीक्षार्थी का नाम :	Y
दिनाँक : परीक्षा कोड	
अनुक्रमांक :	儿

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

1. Choose the most appropriate answer and fill in the

Plural of 'tooth' is _

(A) Teeth

(C) Tooths

- (B) Tooth (D) None of the above
- 2. Choose the correct Reported form of the sentence from the option given below.

Pinky said, "What a beautiful vase!"

- (A) Pinky exclaimed that it is a very beautiful vase.
- (B) Pinky said that it is a very beautiful vase indeed.
- (C) Pinky exclaimed that it was a very beautiful vase.
- (D) Pinky reported that it was an indeed a beautiful vase.
- 3. In the following question, out of the four alternatives, select the alternative which is the best substitute of the

A bias in favour of something.

(A) addiction

(B) disposition

(C) predilection

(D) impulse

4. Give the plural of the given word.

Series

(A) Series

(B) Serieses

(C) Seriess (D) Seriefes

Direction (5-8): Read the passage given below and answer the questions that follow.

> People talk of memorials to him in statues of bronze or marble or pillars and thus they mock him and belie his message. What tribute shall we pay to him that he would have appreciated? He has shown us the way to live and the way to die and if we have not understood that lesson, it would be better than we raised no memorial to him, for the only fit memorial is to follow reverently in the path he showed us and to do our duty in life and in death.

> He was a Hindu and an Indian, the greatest in many generations and he was proud of being a Hindu and an Indian. To him, India was dear because she had represented throughout the ages certain immutable truths. But though he was intensely religious and came to be called the father of the Nation, which he had liberated, yet no narrow religious or national bonds confined his spirit. And so he became the greatest internationalist, believing in the essential unity of man, the underlying unity of all religions and the needs of the humanity and more especially devoting himself to the service of the poor and the distressed millions everywhere.

> His death brought more tributes that have been paid at the passing of any other human being in history. Perhaps what would have pleased him best was the spontaneous tributes that came from the people of Pakistan. On the morrow of the tragedy, all of us forgot for a while that bitterness that had crept in, the estrangement and conflict of these past months and Gandhi stood out as the beloved champion and leader of the people of India, of India as it was before partition cut up this living nation.

- 5. Which of the below sentences summarises the key idea of the passage?
 - (A) Partition of India
 - (B) Story of a Hindu man
 - (C) Tribute to Mahatma Gandhi
 - (D) None of the above

- 6. Which of the following stands TRUE as per the reading of the given passage?
 - (A) Gandhi believed in the essential unity of man, underlying unity of all religions and the needs of the humanity.
 - (B) Gandhi stood out as the beloved champion and leader of the people of Pakistan
 - (C) To Gandhi, India was dear because she had represented throughout the ages certain ugly and variable truths
 - **(D)** All of the above.
- 7. Which of the following words is the most similar in meaning to the word 'immutable' as given in the passage?

(A) Undetectable

(B) Unassailable

(C) Untouched

(D) Unyielding

8. Which of the following words is the most opposite in meaning to the word 'liberated' as given in the passage?

(A) Discharged

(B) Subjugated

(C) Comforted

(D) Extricated

In the following question, a sentence has been given in 9. Active/Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.

The national anthem is being sung by Jason.

- (A) Jason was singing the national anthem.
- (B) Jason is singing the national anthem
- (C) Jason sings the national anthem.
- (D) Jason has sung the national anthem.
- 10. In the following question, a sentence is given with a blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.

Bhartendu Harishchandra is known as ___ of modern Hindi literature as well as Hindi theatre.

(A) the

(B) a

(C) an

(D) No article

11. Select the word with the correct spelling. (A) Perverted

(B) Pervirted

(C) Parverted

(D) Parvirted

12. Form an adjective from the given word.

Courage

(A) Encourage

(B) Cowardice

(C) Courageous

(D) Courteous

13. In the following question, a sentence is given with a blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.

his father was a king, Atikant was brought up like the son of a common man.

(A) But

(B) So

(C) And

(D) Although

14. In the following question, out of the four alternatives, select the word similar in meaning to the given word.

Irresolute

(A) Undecided

(B) Angry

(C) Ignorant

(D) Firm

15. 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.

What have you drawn?

(A) What has drawn by you?

(B) What is being drawn by you? (C) What have been drawn by you? (D) What has been drawn by you? 16. In the following question, out of the four alternatives, select the alternative which is the best substitute for the given phrase. To run away with a lover (A) Deceive (B) Cheat (C) Escape (D) Elope 17. Spot the erroneous parts, if any, in the following This is the boy (a)/ whom I think had won (b)/ the gold medal in the dance competition (c). No error (d) (A) a **(B)** b (C) c (D) d Change the narration: 18. Alisha said, "I have topped the exam". (A) Alisha said to me that she topped the exam. (B) Alisha told me that she has topped the exam. (C) Alisha said that she had topped the exam. (D) Alisha said to me that she topped the exam. 19. In the following question, a sentence is given with a blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option. Hit the nail on the _ (A) Head (B) Hand (C) Toe (D) Coffin 20. Identify the antonym of the given word. **Paltry** (A) Common (B) Small (C) Considerable (D) Meagre दो संख्याओं का अनुपात 4 : 5 है। यदि प्रत्येक संख्या को 4 से बढ़ा दिया 21. जाये तो यह अनुपात 6 :7 हो जाता है। संख्याओं के बीच अंतर ज्ञात कीजिये। **(A)** 2 **(B)** 9 **(C)** 3 **(D)** 7 निम्नलिखित में से कौन सा प्रकृति में न्यायसंगत है? 22. (B) राज्य नीति के निर्देशक सिद्धांत (A) मौलिक कर्तव्यों (C) मौलिक अधिकार (D) इनमें से कोई नहीं यदि एक वर्ग की परिधि और क्षेत्रफल का अनुपात 8:11 है। तो वर्ग की 23. परिधि ज्ञात करें। **(A)** 44 **(B)** 22 **(C)** 88 **(D)** 24 एक पंक्ति में बैठे पैनल के छ: सदस्यों में से A, C के दायीं ओर बैठा है, 24. किन्तु B के बायीं ओर बैठा है | E, C के बायीं ओर और D स्वयं F के दायीं ओर बैठा है, तो पंक्ति के दोनों किनारों पर कौन-से सदस्य बैठे हैं? (A) D, F **(B)** A, B **(C)** F, B **(D)** F, D 25. भारतीय संविधान के अनुसार, कार्य पालिका का प्रमुख कौन होता है? (B) भारत सरकार के कैबिनेट सचिव (C) राष्ट्रपति (D) केंद्रीय गृह मंत्री निम्नलिखित प्रश्न में, दिए गये विकल्पों में से लुप्त संख्या चुनिए। 26. 4, 8, 16, ?, 64, 128 **(B)** 28 **(A)** 30

TEST ID - AYG - 87595706 एक सेब की कीमत में 20% की कमी होने से एक आदमी रु. 54 से 10 27. अधिक सेब खरीद सकता है। सेब की घटी हुई कीमत प्रति दर्जन कितनी है? (A) ₹. 4.32 (B) ₹. 12.96 **(C)** रु. 10.80 (**D**) ₹. 14.40 2,600 को A, B, C में $\frac{1}{2}:\frac{1}{2}:\frac{1}{2}$ के अनुपात में बाँटें। प्रत्येक का हिस्सा ज्ञात 28. (A) Rs 1,200, Rs 600, Rs 800 (B) Rs 1,200, Rs 800, Rs 600 (C) Rs 600, Rs 800, Rs 1,200 (D) Rs 800, Rs 600, Rs 1,200 सुल्तानपुर राष्ट्रीय उद्यान किस राज्य में स्थित है? 29. (A) असम (B) पश्चिम बंगाल (C) मेघालय (D) हरियाणा निम्नलिखित वन्यजीव अभयारण्यों में से कौन सा तमिलनाडु में स्थित नहीं है? 30. (A) इंदिरा गांधी वन्यजीव अभयारण्य (B) पेरियार वन्यजीव अभयारण्य (C) वेदांतंगल वन्यजीव अभयारण्य (D) मुदुमलाई वन्यजीव अभयारण्य एक बार चुंबक के केंद्र में चुंबकत्व _ होता है। 31. (A) उच्च (B) अधिकतम (C) लगभग- शून्य (D) न्यूनतम या अधिकतम निम्नलिखित प्रश्न में, दी गई श्रृंखला से लुप्त संख्या का चयन करें। 32. 1, 8, 29, 92, 281, ? (A) 567 **(B)** 628 **(C)** 776 **(D)** 848 निम्नलिखित प्रश्न में दिए गए विकल्पों में से बेजोड शब्द जोडी को चनिए। 33. W (B) हाथ : कलाई (A) सिर : मस्तिष्क (D) पैर : टखने (C) भुजा : कंधे पांच सदस्यों के एक परिवार की 3 वर्ष पहले औसत आय 17 वर्ष थी। 34. परिवार में एक बच्चे का जन्म हुआ, किंतु वर्तमान में परिवार की औसत आयु वही रहती है। वर्तमान में बच्चे की आयु क्या है? (A) 3 वर्ष (C) 1 वर्ष **(D)** 1.5 वर्ष चार दोस्तों में, गोविंद की उम्र कृष्ण की उम्र से दोग्नी है। नंदू की उम्र कृष्ण के उम्र की आधी है। कृष्ण ग्वाला से 6 वर्ष बड़ा है, लेकिन गोविंद से 6 वर्ष छोटा है। सबसे छोटा कौन है? (A) गोविन्द (B) কৃষ্ण (D) निर्धारित नहीं किया जा सकता (C) नंदू कुछ समीकरणों का कुछ प्रणालियों के आधार पर हल निकाला गया है। 36. उसी आधार पर उस समीकरण का सही उत्तर ज्ञात करें जिसका हल नहीं निकाला गया है? यदि 3 ×2 ×8 ×4 = 632, 2 ×4 ×4 ×4 = 816 हो, तो 3 ×3 ×5 ×1 = ? **(A)** 95 **(B)** 45 **(D)** 184 **(C)** 315 निम्नलिखित प्रश्न में. उस शब्द का चयन करें जिसे दिए गए शब्द के अक्षरों 37. का उपयोग करके गठित नहीं किया जा सकता है। **TRADITIONAL** (A) RADON (B) RATION (C) NATIONAL (D) TRAIN मेघनाद एक कार्य को 45 घंटे में परा कर सकता है। यदि जयश्री, जो उससे 38. 50% अधिक कुशल है, उसके साथ मिल कर कार्य करती है तब दोनों मिलकर कितने समय में कार्य पूरा करेंगे? (A) 9 घंटे (B) 6 घंटे (C) 12 घंटे (D) 18 घंटे दिए गए विकल्पों से संबंधित शब्द / अक्षर / संख्या का चयन करें। 39. भारत का आयरन मैन: सरदार वल्लभ भाई पटेल: राष्ट्र के पिता:? (A) महात्मा गांधी (B) लोकमान्य तिलक (C) राजीव गांधी (D) जवाहर लाल नेहरू

देश के सर्वोच्च खेल सम्मान राजीव गांधी खेल रत्न पुरस्कार का नाम 40. बदलकर अब किसके सम्मान में किया गया है? (A) रूप सिंह (B) अटल बिहारी

(D) 32

(C) 24

(C) कपिल देव

(D) मेजर ध्यान चंद

41. (A) सिंचाई

निम्नलिखित में से कौन सा "नीली क्रांति" से संबंधित है? (B) कृषि

(C) मत्स्य पालन

(D) नील की खेती

इलैक्ट्रांनिक्स में 'IC' का पूर्ण रूप क्या है? 42.

(A) इंटर्नल सर्किट

(B) इंडिपेंडेन्ट सर्किट

(C) इंटीग्रेटेड सर्किट

(D) इन-बिल्ट सर्किट

एक बगीचे में 60% पेड़, नारियल के पेड़ है। उसमें नारियल के पेड़ों की 43. संख्या के 25% आम के पेड़ है और आम के पेड़ों की संख्या के 20% सेब के पेड़ है। तदनसार, यदि सेब के पेड़ों की संख्या 1500 हो, तो उस बगीचे में कुल पेड़ों की संख्या कितनी है?

(A) 48000

(B) 50000

(C) 51000

(D) 45000

राजा हर्ष ने अपनी राजधानी 44.

स्थानांतरित की थी।

(A) थानेसर, कन्नौज

(B) दिल्ली, देवगिरी

(C) कम्बोज, कन्नौज

(D) वालाभी, दिल्ली

एक आयताकार प्लॉट का परिमाप 48 मी. है और क्षेत्रफल 108 मी.² है। 45. प्लॉट के आयाम हैं

(A) 36 मी. और 3 मी.

(B) 12 मी. और 9 मी.

(C) 27 मी. और 3 मी.

(D) 18 मी. और 6 मी

अगर $a^2 + b^2 = ab$ है, तो $(a^3 + b^3)$ $(a^2 + 6a + 12) = ?$ का मान ज्ञात 46.

(A) 0 **(C)** -1

(B) 1 **(D)** 2

यदि sin1° = p और sin 89° = q है, तो निम्नलिखित में से क्या सही है? 47.

(A) p, 0 के निकट है और q, 1 के निकट है

(B) q < p

(C) p = q

(**D**) p, 1 के निकट है और q, 0 के निकट है

दिए गए शब्दों को अनुक्रम में व्यवस्थित करें जिसमें वे शब्दकोश में होते हैं। 48.

i. असंगत

ii. अजेय

iii अथक

iv. अचल

v. जांच करें

(A) iv, ii, v, iii, i (C) ii, v, iv, i, iii (B) iv, v, i, iii, ii (D) iv, v, ii, i, iii

एक वस्तु के अंकित मुल्य और क्रय मुल्य का अनुपात 37/30 है। दुकानदार 49. अंकित मूल्य पर छूट देने की पेशक<mark>श क</mark>रता है और वस्तु को बेचकर 11% का लाभ अर्जित करता है। वस्तु पर दी गई छूट प्रतिशत ज्ञात कीजिये।

(A) 11%

(B) 13%

(C) 37%

(D) 10%

निम्न में से कौन से तत्व का गुलनांक सबसे कम है? 50.

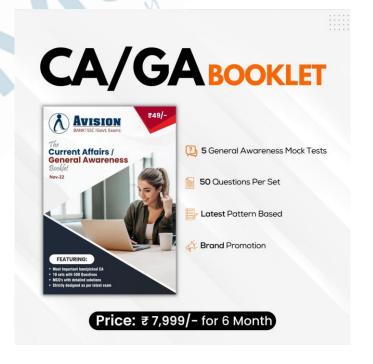
(A) प्लेटिनम **(C)** सुरमा

(B) सोडियम

(D) क्रिप्टन

Space for rough work





- Ans.1(A) Teeth' is the plural of 'tooth'.
- Ans.2(C) Pinky exclaimed that it was a very beautiful vase
- Ans.3(C) Predilection means a preference or special liking for something; a bias in favour of something.
- Ans.4(A) Some nouns don't change at all when they're pluralized.
- Ans.5(C) Option 1, i.e. 'Partition of India' does not receive supportive content from the passage as only one single line has been mentioned in the passage about it. Similarly, nowhere does the passage talk about the story of a Hindu man. It does talk about Gandhi who was a Hindu man but that is not what the whole passage revolves around The key idea of the passage is to honour Gandhi after his death.
- Ans.6(A) Ans.7(D)

On reading the sentence we can infer that it is talking about fixed or unchangeable truths. Therefore, 'undetectable' does not fit the criteria as it means something which is imperceptible. Out of the other words, 'unassailable' means invulnerable and 'untouched' means unconsumed. None of these words make a good fit keeping the meaning of the sentence intact. 'Unyielding' makes the most appropriate fit to be the closest synonym to 'immutable'.

- Ans.8(B) The hint to the right answer lies in the preceding phrases 'yet no narrow religious or national bonds confined his spirit', which further indicates that the most opposite to the word 'liberated' must be negative in nature as the word 'liberated' means to be free. Out of the given options, only 'subjugated' makes a negative carrier of the meaning and makes the most opposite word to 'liberated'.
- Ans.9(B) The given sentence is the passive form of a present continuous tense. The structures for active/passive voices are:

Passive: Object + is/are/am + being + verb (IIIrd from) + by + subject.

Active: Subject + is/are/am + verb (ing) + object...So, with the help of the above structures, we can convert the given sentence into active voice:

Jason is singing the national anthem

- Ans.10(A) In the given sentence, we are referring to Bhartendu Harishchandra as the originator of Hindi literature as well as Hindi theatre. Since we are specifying him in the sentence, the correct preposition to be used here is "the".
- **Ans.11(A)** Perverted: characterized by sexually abnormal and unacceptable practices or tendencies.
- Ans.12(C) Adjective means an attribute or a characteristic of the given noun. Here, 'courage' has been given as a noun, while 'courageous', which means 'the characteristic carried by someone with courage' makes the best fit.
- Ans.13(D) Although is used for introducing a statement that makes the main statement in a sentence seem surprising and it gives the sense of 'in spite of the fact'. Here in the sentence we can guess from the context that although is required.
- Ans.14(A) The word "irresolute" means: not able to decide what to do; undecided. expresses the meaning of the word "Irresolute".
- Ans.15(D) The given question in interrogative form of present perfect tense. The structures of active/passive voice for such sentences are:

 Active: Wh-question word + has/have + verb (IIIrd form) + subject

Passive: Wh-question word + has + been + verb (IIIrd form) + by + subject

So, based on the above structure, the passive voice of the given sentence would be:

What has been drawn by you?

Ans.16(D) Elope = to run off with a lover secretly to be married, usually without the consent or knowledge of one's parents

Deceive = to persuade someone that something false is the truth, or to keep the truth hidden from someone for your own advantage Cheat = act dishonestly or unfairly in order to gain an advantage.

Escape = break free from confinement or control.

Ans.17(B) 'Whom' should be replaced by 'Who' as in the sentence it has been already mentioned about a boy.

Note: Who is used to refer to the subject of a sentence. Whom is used to refer to the object of a verb or preposition'.

- Ans.18(C) Here the sentence is in direct speech and doesn't have an object. So, reporting verb 'said' remains as it is in indirect speech. The tense is 'simple past' as marked by the use of 'topped' and is changed to past perfect 'had + topped'. She is used in place of I in the other part of the sentence.
- Ans.19(A) The complete proverb is 'Hit the nail on the head' which means find exactly the right answer.

 Ans 20(C) Paltry means small its opposite is
- Ans.20(C) Paltry means small. Its opposite 'considerable'.

RAGA

Ans.21(A) दिया गया है कि दो संख्याओं का अनुपात 4:5 है माना कि वह संख्याएँ क्रमश: 4a और 5a हैं जहाँ a एक अचल है यदि प्रत्येक संख्या को 4 से बढ़ा दिया जाये तो अनुपात 6:7 हो जाता है

 $\therefore \frac{4a+4}{5a+4} = 6/7$ $\Rightarrow 28a + 28 = 30a + 24$ $\Rightarrow 2a = 4$ $\Rightarrow a = 2$

संख्याओ का अंतर = 5a -4a ⇒ संख्याओ का अंतर = a = 2

- Ans.22(C)

 मौलिक अधिकार प्रकृति में न्यायसंगत हैं क्योंकि जब पीड़ित
 व्यक्ति का उल्लंघन किया जाता है तो अदालतों को उनके प्रवर्तन
 के लिए स्थानांतरित कर सकते हैं। मौलिक अधिकार और निर्देश
 सिद्धांत प्रकृति में गैर-न्यायसंगत हैं क्योंकि वे अदालतों द्वारा उनके
 उल्लंघन के लिए कानूनी रूप से लागू नहीं हैं। इसलिए, सरकार
 को लागू करने के लिए मजबूर नहीं किया जा सकता है।
- Ans.23(B) माना वर्ग की भुजा a है। सवाल के मुताबिक $\frac{4A}{A^2} = \frac{8}{11}$

 $\frac{1}{A^2} - \frac{1}{11}$ A= 11/2
परिधि = 4 A = 22

Ans.24(C)

F D E C A B

- Ans.25(C) भारतीय संविधान के अनुच्छेद 53 (1) के अनुसार, कार्य पालिका के प्रमुख भारत के राष्ट्रपति होते हैं। उनके पास सभी संवैधानिक शक्तियां होती हैं जिनका प्रयोग वे सीधे या अधीनस्थ अधिकारियों के माध्यम से कर सकते हैं।
- Ans.26(D) अनुसरित स्वरुप नीचे दिखाया गया है,

4 × 2 = 8 8 × 2 = 16 16 × 2 = 32 32 × 2 = 64 64 × 2 = 128 अत: सही उत्तर 32 है।

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एक सेब की कीमत में 20% की कमी होने से एक आदमी रु. 54
Ans.27(B)
                 से 10 अधिक सेब खरीद सकता है।
                 इसका मतलब वह 10 सेब रु. (54 का 20% = 54/5) में खरीदता
                 ∴ 10 सेब का लागत मूल्य = रु. (54/5)
                 ⇒ 1 सेंब का लागत मूल्य = रु. (54/50)
                 ⇒ 12 सेब का लागत मूल्य = (54/50) × 12
                 = र<del>ू</del>. 12.96
Ans.28(B)
                 A:B:C = 6:4:3 का अनुपात
                 A = \frac{2600}{13} \times 6 = 1200
                 B = 200 \times 4 = 800
                 C = 200 \times 3 = 600
                 सुल्तानपुर नेशनल पार्क (पूर्व में सुल्तानपुर पक्षी अभयारण्य)
Ans.29(D)
                 हरियाणा के गुड़गांव से पंद्रह किलोमीटर और भारत में दिल्ली से
                 50 किमी दूर सुल्तानपुर में स्थित है।
                 पेरियार राष्ट्रीय उद्यान और वन्यजीव अभ्यारण्य, भारत के केरल में
Ans.30(B)
                 कोट्टायम और पथानामथित्ता के इडुक्की जिले में थेक्कडी के पास
                 एक संरक्षित क्षेत्र है।
                 बीच में चुंबकीय रेखाएं एक दूसरे से बहुत दूर हैं और ध्रुवों पर एक
Ans.31(C)
                 दूसरे के करीब हैं, यहीं कारण है कि केंद्र में चुंबकीय बल ध्रुवों से
                 कम है।
Ans.32(D)
                 1 \times 3 + 5 = 8
                 8 \times 3 + 5 = 29
                 29 \times 3 + 5 = 92
                 92 \times 3 + 5 = 281
                 281 \times 3 + 5 = 848
                 सिर और मस्तिष्क के अतिरिक्त अन्य स्थितियों में दिए गए दो
Ans.33(A)
                 भाग एक दूसरे से जुड़े हुए हैं। मस्तिस्क सिर के अन्दर होता है
                 नाकि उससे जुडा हुआ।
                 इसलिए, सिर: मस्तिष्क बेजोड़ शब्द जोड़ी है।
                 5 सदस्यों की वर्तमान आयु = (5×17+3×5)
Ans.34(B)
                 = 100 वर्ष
                 5 सदस्यों और एक बच्चे की वर्तमान आय
                 = 17×6 = 102 वर्ष
                 बच्चे की आयु = 102-100 = 2 वर्ष
                 गोविन्द > ग्वाला > कृष्ण > नंदू के क्रम में होगा।
Ans.35(C)
                 अतः नंदु सभी में सबसे छोटा है।
Ans.36(A)
                 जैसे, 3×2= 6 और 8×4 = 32,
                 इसलिए 3×2×8×4 = 632
                 2×4= 8 और 4×4 = 16,
                 इसलिए 2×4×4×4 = 816
                 इसी प्रकार, 3×3 = 9 और 5×1 = 5, इसलिए 3×3×5×1 = 95
Ans.37(C)
                 'राष्ट्रीय'; दिए गए शब्द में कोई डबल 'एन' नहीं है।
                 मेघनाद एक कार्य को 45 घंटे में पूरा कर सकता है।
Ans.38(D)
                 जयश्री उससे 50% अधिक कुशल है
                 ⇒ मेघनाद कार्य का 1/45 हिस्सा एक घंटे में करेगा और जय श्री
                 (1/45 + 0.5 × 1/45) = 1/30 हिस्सा एक घंटे में करेगी।
                 ⇒ दोनों का एक घंटे का कार्य = (1/45 + 1/30)
                 \Rightarrow 5/90
                 ⇒ 1/18
                 ः दोनों मिलकर उस कार्य को 18 घंटे में पुरा करेंगे।
                 सरदार वल्लभभाई पटेल को भारत के लौह व्यक्ति के रूप में
Ans.39(A)
                 जाना जाता है
                 इसी प्रकार, राष्ट्र के पिता महात्मा गांधी हैं
                 मेजर ध्यान चंद
Ans.40(D)
                 नीली क्रांति भारत में मछली उत्पादन, मत्स्यपालन से संबंधित है।
Ans.41(C)
                 एक एकीकृत परिपथ ( आईसी ), जिसे कभी - कभी चिप या
माइक्रोचिप कहा जाता है , यह एक अर्धचालक वेफर होता है जिस
Ans.42(C)
                 पर हजारों या लाखों नन्हें प्रतिरोधों , संधारित्रों और ट्रांजिस्टरों को
                 जोड़ा जाता हैं। एक एकीकृत परिपथ (आईसी) एक प्रवर्धक,
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बगीचे में पेड़ की कुल संख्या 100 इकाई होनी चाहिए।
Ans.43(B)
                    नारियल के पेड़ों की संख्या = 100 = 60 इकाई का 60%
                    आम के पेडों की संख्या = 60% की 25% = 15 इकाई।
                    सेब पेड़ों की संख्या = 15 = 3 इकाई का 20%।
                    प्रश्न के मुताबिक
                    3 इकाईँ = 1500
                    1 इकाई = 500
                    100 इकाई = 50000
                    मुल विधि:
                    यदि बगीचे में पेड़ की संख्या एक्स हो
                    फिर,
                    x \times \frac{60}{100} \times \frac{25}{100} \times \frac{20}{100} = 1500
\Rightarrow x \times \frac{3}{5} \times \frac{1}{4} \times \frac{1}{5} = 1500
                    \Rightarrow x = 1500 \times 5 \times 4 \times 5/3 = 50000
                    हर्ष (590-647 CE), जिसे हर्षवर्धन भी कहा जाता है, एक भारतीय
Ans.44(A)
                    सम्राट था जिसने उत्तर भारत पर 606 से 647 CE. तक शासन
                    किया था। वह पुष्पभाति वंश से संबंधित थे। पुष्पभाती राजवंश की
                    प्रारंभिक राजधानी हरियाणा के थानेसर में थी, जिसे उत्तर प्रदेश के
                    कन्नौज, हर्षवर्धन द्वारा स्थानांतरित किया गया था।
Ans.45(D)
                    P = 2(I+b)
                    2(1+b) = 48
                    1+b = 24----(i)
                    A= lxb
                    lxb = 108----(ii)
                    (I) और (ii) को हल करके, हमें मिलता है:
                    L= 18 मीटर और B = <mark>6 मीटर।</mark>
Ans.46(A)
                    \Rightarrow a<sup>2</sup> + b<sup>2</sup> = ab
                    \Rightarrow a<sup>2</sup> + b<sup>2</sup> - ab = 0
                    \Rightarrow (a<sup>3</sup> + b<sup>3</sup>)(a<sup>2</sup> + 6a + 12)
                    \Rightarrow (a + b)(a<sup>2</sup> + b<sup>2</sup> - ab) (a<sup>2</sup> + 6a + 12)
                    \Rightarrow (a + b)(a<sup>2</sup> + 6a + 12) = 0 Short Trick:
                    Here, One equation and two variable, so a and b can
                    have infinite value:
                    let suppose that a = 0
                    then, a^2 + b^2 = ab (a = 0)
                    \Rightarrow b = 0
                    So.
                    \Rightarrow (a<sup>3</sup> + b<sup>3</sup>) (a<sup>2</sup> + 6a + 12) (a = 0, b = 0)
                    \Rightarrow (a<sup>3</sup> + a<sup>3</sup>)(a<sup>2</sup> + 6a + 12) = 0
Ans.47(A)
                    हम जानते हैं कि,
                    sin 0° = 0 और sin 90° = 1
                    ⇒ sin 1°, 0 के निकट है और sin 89°, 1 के निकट है
                    ∴ p, 0 के निकट है और q , 1 के निकट है।
Ans.48(D)
                    वर्णमाला क्रम है:
                    iv. अचल
                                         v. जांच करें
                    ii. अजेय
                                        i. असंगत
                                                              iii. अथक
                    इसलिए सही क्रम है (iv, v, ii, i, iii)।
Ans.49(D)
                    माना कि अंकित मूल्य y रूपये और क्रय मूल्य x रूपये है।
                    छूट के बाद, विक्रय मूल्य = y × (100 - d)/100
                    जहाँ 'd' पेश की गई छूट का प्रतिशत है।
                    लाभ = 11%
                    ∴ (विक्रय मूल्य – क्रय मूल्य)/क्रय मूल्य = 0.11
                    ∴ विक्रय मूल्य/क्रय मूल्य = 1.11
                    [y \times (100 - d)]/(x \times 100) = 1.11
                    लेकिन, y/x = 37/30
                    \therefore 100 - d = 1.11 \times 100 \times 30/37
                    = 0.03 \times 100 \times 30 = 90
                    d = 100 - 90 = 10\%
                    प्लेटिनम्, सोडियम्, सुरमा और क्रिप्टन का गलनांक क्रमशः 1,768
Ans.50(D)
                    °C, 97.79 °C, 630.6 °C और -157.4 °C है। इसलिए इन सभी
                    तत्वों में से क्रिप्टन का गलनांक सबसे कम है।
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ऑसीलेटर (प्रणोदक), समयपाल, गणक, कंप्यूटर स्मृति, या

माइक्रोप्रोसेसर के रूप में काम कर सकता है।