भारतीय प्रशिक्षण कार्यक्रम

समय अनुसारित : दो घंटे

Time Allowed: Two Hours

इस टेस्ट बुकेट के सब तक न भूलें जब तक आप की ऐसी कार्रवाई करने के लिए न बढ़ाए जाएं।

This Test Booklet contains 28 pages. Do not open this Test Booklet until you are asked to do so.

अधिकारी का नाम : 

Maximum Marks: 60

प्रश्नों के लिए निर्देशित किया जाएगा, तब उत्तर पत्ता बाहर निकालें, और क्षेत्र-1 और क्षेत्र-2 में केवल नीति/कार्य का वर्तनी पैनल से साक्षात्कारों से निर्धारित।

The Answer Sheet is inside this Test Booklet. When you are directed to open the Test Booklet, take out the Answer Sheet and fill in the particulars on Side -1 and Side -2 carefully with blue/black ball point pen only.

1. यह टेस्ट बुकेट के मिलने के लिए निर्देशित किया जाएगा, तब उत्तर पत्ता बाहर निकालें, और क्षेत्र-1 और क्षेत्र-2 में केवल नीति/कार्य का वर्तनी पैनल से साक्षात्कारों से निर्धारित।

2. यह टेस्ट बुकेट के लिए टेस्ट बुकेट को B1 के साधनों से यह जरूरी है कि टेस्ट बुकेट को उस चरण के क्षेत्र-1 और क्षेत्र-2 में मूँह लेने हेतु अर्थ साक्षात्कारों के मिलने के लिए निर्देशित किया जाए।

3. टेस्ट बुकेट के में 60 उत्तर है जो ए, बी और भी दो टीका से निर्धारित है।

4. यह टेस्ट बुकेट के में 25 चरण है, जो ए, बी और भी चरण के में 80 उत्तर है जो ए, बी और भी चरण के में 90 उत्तर है।

5. यह टेस्ट बुकेट के में 25 चरण है, जो ए, बी और भी चरण के में 90 उत्तर है।

6. यह टेस्ट बुकेट के में 25 चरण है, जो ए, बी और भी चरण के में 90 उत्तर है।

7. यह टेस्ट बुकेट के में 25 चरण है, जो ए, बी और भी चरण के में 90 उत्तर है।

8. यह टेस्ट बुकेट के में 25 चरण है, जो ए, बी और भी चरण के में 90 उत्तर है।

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निर्देशित को उपलब्ध नियमों को साक्षात्कार पर प्रशिक्षण के में अनुसरण करना।

The candidates should be present in the Examination Hall with the examination sheet. No other sheet or material is allowed to be brought into the Examination Hall.

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वर्ण - ए (भाषीय आचार : प्रश्न 1 से 24)

परीक्षार्थियों के लिए निदेश:
1. यह खण्ड उन विद्वानों के लिए है जो भाषीय आचार (Language Conventions) खण्ड के अन्तर्गत हिंदी विषय में परीक्षा देना चाहते हैं।
2. इस खण्ड में कुल 24 वस्तुनिष्ठ प्रश्न हैं। सभी प्रश्न अभिव्यक्त तथा प्रश्नक प्रश्न एक अंक का है।
3. सभी उत्तर केवल OMR उपर पर ही अंकित करें। उत्तर बदलने हेतु स्वतंत्र रंजक का प्रयोग निषिद्ध है।

निदेश: निम्नलिखित प्रश्न संख्या 1 से 8 में सभी सही विकल्प चुनिए:

1. ‘सुमन को बात - बात दे दीजिए।’ वाक्य के खण्डित अंश में कौन सा कारक है?
   (1) क्रम
   (2) संप्रदान
   (3) अपादान
   (4) कर्ता

इस बारे में क्या कहा जाएगा? वाक्य में खण्डित शब्द है?
(1) प्रत्ययिक सर्वनाम
(2) स्थापत्यवाचक क्रियाविशेषण
(3) अनिश्चयवाचक सर्वनाम
(4) समयवाचक क्रियाविशेषण

3. मिलित वाक्य का उदाहरण है?
   (1) सदृश का यह कमीज फट गई जो नहीं थी।
   (2) सदृश का नहीं वाली कमीज फट गई।
   (3) सदृश का कमीज फट गई।
   (4) सदृश का नहीं कमीज फट गई।

4. कौन-सा वाक्य संयुक्त क्रिया का उदाहरण है?
   (1) बचे जोर से चिल्लाए।
   (2) रोमा ने खाना बनाया।
   (3) मोहन को भूख लगी है।
   (4) आग देखकर दर्जक चिल्ला उठे।

5. ‘सोनाकी आमतौर पर आम है।’ वाक्य में रेखांकित शब्द है?
   (1) विशेषण
   (2) संज्ञा
   (3) प्रश्नविशेषण
   (4) क्रियाविशेषण

6. ‘सुहासिनी ने खाना खाया और रेखा ने कोई भी।’ वाक्य में रेखांकित शब्द है?
   (1) संबंधवाचक
   (2) निर्देश
   (3) समुच्चयवाचक
   (4) क्रियाविशेषण

7. कौन-सा शब्द-युग बाकी शब्द-युगों से प्रभाव है?
   (1) चाय - बाय
   (2) पापड - बापड
   (3) पहर - पर
   (4) पूछ - बूछ

8. ‘महाराणा प्रताप चीर थे हो लक्ष्मीबाई बी।’ वाक्य के खण्डित शब्द के किसी एक वाक्य के लिए विश्वसनीय उत्तर दीजिए।
   (1) चीरी
   (2) बिरुच्छी
   (3) चीरा
   (4) चीरगाना
निर्देश - निम्नलिखित प्रश्न 9 से 16 सबसे उचित विकल्प का चयन कीजिए।
9. सभी सत्याग्रही पूरे _______ देशाभिमान के मात्र गा रहे थे।
   (1) तन-मस्तक के साथ
   (2) मस्तक के साथ
   (3) जोड़ के साथ
   (4) तेज़ी के साथ

10. "जब पर सिर कुल भ्रोम-सा मत करना। वह तो _______ !"
    (1) आत्मीय का सोप है।
    (2) अंधे की लाट है।
    (3) तोड़ का तेह छिन।
    (4) गुड़ी का लाट है।

11. उस एक कदिमी में गंगा _______ ले आया।
    (1) पानी
    (2) जल
    (3) नीर
    (4) पान

12. 'वस उत्तरा-सा! मैं तो हैरान हूँ।' वाक्य में रूपांतरण अंश _______ अर्थ की ओर संदर्भित करता है।
    (1) अपराजेयता के
    (2) परास होने के
    (3) खराब होने के
    (4) बिकट होने के

13. यमकांत ने हमेशा अपने लोगों को ही फायदा पहुँचाया है।
    इसे कहते हैं
    (1) अंध-का अंधा
    (2) न तीन में न तेरह में
    (3) अग्नि बिंद रेशमी फिर-फिर आलों को दे
    (4) एक अनाज सी भीमार

14. यह उचित-अनुचित का विचार किए विना ज्ववाहर करता है। इसे कहते हैं
    (1) एक समान भाव से कार्य करना
    (2) अंधे में काम राजा
    (3) अंधों में धूल झूकना
    (4) एक तांती से होकरना

15. यह तो पुत्राण वस्तु है। वाक्य में रूपांतरण अंश का अर्थ है
    (1) जो बहुत कीमती होती है
    (2) जो बहुत कठिनाई से मिलती है
    (3) जो बहुत दुर्गम होती है
    (4) जो बिलकुल नहीं मिलती

16. 'आसारी को मुलुकदंड _______!'
    (1) की सजा ली गई।
    (2) दिया गया।
    (3) सुनाई गई।
    (4) की सजा हुई।
सिवेश-नीचे दिए गए अनुश्रेष्ठ को पढ़कर प्रश्न संख्या 17 से 24 में उचित विकल्प का चयन कीजिए:

गाँधीजी बड़ी नपी-तुली 17 में अपनी बात कहते थे। वे लच्छिदार शब्दों के 19 कभी नहीं जाते थे। उन्होंने उदेश्य लोगों को चमकाता 21 नहीं, उससे अपने दिल 22 बात कहना था। उनकी 23 सीपी-सादी किंतु निराली 24 थी जिसमें वे अपने हृदय को उड़ाकर रख देते थे।

21. रिक्त स्थान 24 पर क्या आयेगा?
   (1) बोली
   (2) प्रस्तुति
   (3) बात
   (4) शैली

22. रिक्त स्थान 23 पर क्या आयेगा?
   (1) बात
   (2) एक
   (3) भाषा
   (4) सैद्ध

23. रिक्त स्थान 22 पर क्या आयेगा?
   (1) की
   (2) में
   (3) सी
   (4) बाली

24. रिक्त स्थान 21 पर क्या आयेगा?
   (1) ठहराना
   (2) दिखाना
   (3) कहना
   (4) बताना
Section – A (Language Conventions : Questions 1 to 24)

Note: This Section of the question paper contains 24 questions in the English Language. A student is required to attempt all the 24 questions.

(Questions 1 to 8): Read the following passage carefully and select the most suitable option from each list according to the corresponding number in the passage.

1. Many teens are accused of being lazy by their parents, as
   (1) guilty of
   (2) created by
   (3) incapable of
   (4) responsible for

2. They often sleep late into the morning and find it hard to
   (1) function upon first waking. These same teens are often also
   (2) reprimanded for staying up late on school nights.

3. However scientific research has shown that adolescents
   (1) work
   (2) serve
   (3) behave
   (4) operate

4. In line 3, the word ‘function’ could best be replaced with
   (1) work
   (2) serve
   (3) behave
   (4) operate

5. The chemical Melatonin, which is in charge of
   (1) adolescents
   (2) adolescents
   (3) adolescents
   (4) adolescents

6. In line 4, the words ‘reprimanded for’ could be quite hard for
   (1) punished for
   (2) disciplined for
   (3) spoken to about
   (4) cautioned about

7. In line 5, the word ‘inducing’ could best be replaced with
   (1) forcing
   (2) persuading
   (3) transmitting
   (4) encouraging

8. In line 6, the words ‘excuse’ could best be replaced with
   (1) alibi
   (2) reason
   (3) pardon
   (4) apology

9. than it is for adults. This means it can be
   (1) quite hard for
   (2) punished for
   (3) spoken to about
   (4) cautioned about

10. teens to go to sleep early. It also may mean that teens now

11. have a scientific excuse to sleep in late!

12. In line 11, the word ‘excuse’ could best be replaced with
    (1) punished for
    (2) disciplined for
    (3) spoken to about
    (4) cautioned about

13. In line 7, the words ‘in charge of’ could best be replaced with
    (1) guilty of
    (2) created by
    (3) incapable of
    (4) responsible for

14. In line 8, the word ‘inducing’ could best be replaced with
    (1) forcing
    (2) persuading
    (3) transmitting
    (4) encouraging

15. Which of the following words shows the correct spelling of the underlined, misspelt word in line 5 ?
    (1) adolescents
    (2) adolescents
    (3) adolescents
    (4) adolescents

16. Which of the following words is the opposite in meaning to the word ‘released’ as used in line 8 ?
    (1) withheld
    (2) liberated
    (3) constricted
    (4) constrained
(Questions 9 – 12) : Complete this passage by selecting the most suitable word/phrase from each list to fill the corresponding gap.

I peered at the river through a gap in the roots of the strangler fig. The thick branches of the tree __9__ me without really protecting me. I noticed the gentlest of ripples in the water and then something __10__ began to emerge from its depths. An enormous head upon a slender neck rose above the surface. I looked into the beast's cold, reptilian eyes. I could sense no mind or soul behind them. I had to refrain from letting out a frightened __11__! The time for retreating into the depths of the forest had arrived and I knew that it was __12__.

9. Which of these fits gap 11?
   (1) “Aah!”
   (2) “Aha!”
   (3) “Ouch!”
   (4) “Phew!”

10. Which of these fits gap 12?
    (1) either now or never
    (2) neither now nor never
    (3) neither sooner nor later
    (4) either sooner rather than later

11. Which of these fits gap 9?
    (1) hiding
    (2) hidden
    (3) was hiding
    (4) were hiding

12. Which of these fits gap 10?
    (1) frightening yet scary
    (2) wonderful yet grand
    (3) amazing yet astonishing
    (4) magnificent yet terrifying

(Questions 13 – 16) : Read the passage and select the correct form of the missing word/phrase to complete it.

It __13__ that a person's body is intuitively aware of when it has returned to its country of origin and __14__ as I stood on the land of my birth, I could certainly vouch for this being true. The sense of calm that __15__ my body surprised me given that the bad news I had recently received __16__ enough to suppress any feelings of being at peace with the world.

13. Which of these fits gap 16?
    (1) will be
    (2) shall be
    (3) might have been
    (4) should have been

14. Which of these fits gap 14?
    (1) after all
    (2) in addition
    (3) at that moment
    (4) on the other hand

15. Which of these fits gap 15?
    (1) overcome
    (2) had overcome
    (3) will overcome
    (4) would overcome

16. Which of these fits gap 13?
    (1) is been said
    (2) has often said
    (3) is often been said
    (4) has often been said
(Questions 17–20) : Complete this passage by selecting the most suitable word/phrase from each list to fill the corresponding gap.

Experienced climber Aron Ralston set out on a __17__ hiking adventure, which proved to be a __18__ event. Despite it being a common safety practice amongst climbers to inform others when undertaking unaccompanied hiking trips, Aron had not __19__ anyone of his plans. During his climbing adventure Aron’s right arm became pinned against the canyon wall by a 360kg boulder. Aron was unable to free himself, and after six days of being __20__, he made the decision to break the bones in his forearm and then amputate his arm below the elbow. Once free he made his way down a cliff and walked 8km to seek assistance. Aron survived.

17. Which of these fits gap 20 ?
   (1) captive
   (2) trapped
   (3) entangled
   (4) suppressed

18. Which of these fits gap 18 ?
   (1) fail-safe
   (2) stimulating
   (3) life-changing
   (4) breath-taking

19. Which of these fits gap 17 ?
   (1) solo
   (2) team
   (3) shared
   (4) supervised

20. Which of these fits gap 19 ?
   (1) alerted
   (2) signalled
   (3) cautioned
   (4) authorised

(Questions 21–24) : Complete this passage by selecting the most suitable word/phrase from each list to fill the corresponding gap.

At 7.17 am on June 30, 1908, an explosion erupted in the forests of Siberia, Russia. The massive explosion __21__ shockwaves on barometers as far away as England. A __22__ number of trees - eighty million to be precise - were flattened and lay in a radial pattern. The trees that remained standing __23__ telegraph poles as they had been stripped of their limbs and bark. This explosion is __24__ as the “Tunguska event”, and it is generally accepted that this was the result of a cosmic body, such as a meteorite, impacting with the Earth.

21. Which of these fits gap 24 ?
   (1) declared
   (2) indicated
   (3) referred to
   (4) accounted for

22. Which of these fits gap 23 ?
   (1) featured
   (2) resembled
   (3) surrounded
   (4) represented

23. Which of these fits gap 22 ?
   (1) fantastic
   (2) dramatic
   (3) powerful
   (4) remarkable

24. Which of these fits gap 21 ?
   (1) listed
   (2) registered
   (3) expressed
   (4) presented
25. जब ग्रामों का अनुबंधक प्रयोग किया जाता है तो पुनर्लिखित होती है। ऐसा प्रयोग करना होता है जब कोई त्रिकोण या सर्क में सुधार करने की तरीका उसके अर्थ को प्रदर्शन करने की कोशिश करता है।

विषय इसी में पुनर्लिखित है क्योंकि ‘विषय’ शब्द की आवश्यकता नहीं है। परंतु अन्य - इतिहास - विषय का ही वर्णन है।

निम्नलिखित में से किस वाक्य में पुनर्लिखित है?

1. उसने लगभग खेल छोड़ दी।
2. पहली बार उसने सफ़र देखा।
3. घुड़ी बेड़े में छीटी लगी थी।
4. वे यूं रुप से बिना हुए थे।

26. आमीर बेसबॉल के लिए हिंदी के लिए निम्नलिखित के साथ वीएससी की आवश्यकता है।

इस मुद्दे के बारे में निम्नलिखित के लिए सारण सारण महत्वपूर्ण है?

(1) एकों द्वारा पीछा यापस करने की पेशकशा
(2) वैध जा रहे बाद बाद की बड़ी गुरुङता
(3) समान पूर्वें में लगने वाले समय की गारंटी
(4) बेसबॉल द्वारा वीडियो की सारण

27. जब कभी लेखक उन शब्दों और विरोधाभासों को शामिल करता है जो वात तथ्य के बनाए व्यक्तिगत राय पर आधारित होती है तो वे मुद्दे के प्रति उनके पूर्वाञ्चल को प्रदर्शित करती हैं।

वृद्धि नकारात्मक या सकारात्मक हो सकते हैं?

(1) सारण निम्नलिखित अनुच्छेद में सकारात्मक पूर्वाञ्चल को प्रदर्शित करता है?
(2) इसलिए वे चर्चा में चर्चा को आगे तक के बारे में शीतल बनाए जा सकते हैं?
(3) पूर्वाञ्चल पर रखने के लिए में सकारात्मक पूर्वाञ्चल को प्रदर्शित करता है?
(4) इसलिए वे चर्चा में चर्चा को आगे तक के बारे में शीतल बनाए जा सकते हैं?

(1) कठिनाई
(2) चमकी
(3) बचना
(4) उदासी

25. A tautology occurs when unnecessary words are used. This generally occurs when someone tries to improve a description or clarify what is meant.

"Past history" is a tautology because the word 'past' is not required. History - by definition - is an account of the past.

Which of the following sentences contains a tautology?

1. He nearly missed the ball.
2. She saw clearly for the first time.
3. The peg fitted loosely into the hole.
4. They were completely surrounded.

26. Aamir wants to buy ink cartridges for his printer from a website but is not sure which site is most trustworthy.

Which of the following factors is least important in making a decision about this matter?

1. The site's money-back offer.
2. The wide range of brands being sold.
3. The guaranteed time it takes for delivery.
4. The number of sales made by the website.

27. Whenever a writer includes words or comments which are based on a personal opinion rather than a known fact, they are showing their bias towards an issue. Bias can be negative or positive.

Which word in the following passage shows a positive bias?

"Indira shines in this movie about a young girl trying to escape from her bullying classmates. The fear, heartbreak, and sadness, felt by children in such situations, are explained through the choice of music and the close-ups of facial expressions."

1. trying
2. shines
3. escape
4. sadness
28. *Kavi:* “Well, it looks like I have to do all the organizing yet again. You people are lazy and hopeless.”

*Sachi:* “Since I am the only one here, I can’t help feeling upset that you are saying that about me. I believe that I do my share of work, but if you disagree, I will listen to your reasons.”

In this conversation, Sachi expresses himself:

(1) passively
(2) assertively
(3) sarcastically
(4) aggressively

29. Human history extends a short way into the past. Compared to this, the period from the formation of the Earth until the first humans is like ____

Which of these best completes the passage above?

(1) a sphere floating in space.
(2) an unstoppable river in flood.
(3) the submerged bulk of an iceberg.
(4) a wind that blows events like dust.

30. An idiom is a common saying which means something different from what it says. An idiom has a deeper meaning.

Which of the four options provides the actual meaning of the following idiom?

“He killed two birds with one stone.”

(1) He hit a target twice using stones.
(2) He did more than one thing at a time.
(3) He completed two tasks with one action.
(4) He couldn’t save the food crops from pests and birds.
Questions (31 – 36) : Read the following passage and answer the questions that follow:

Since 2006, commercial colonies of bees used to make honey and pollinate crops have been collapsing. The loss of bees is a major threat to agriculture. The use of industrial scale methods in agriculture seems to be one of the main causes of the crisis. Meanwhile, wild bee species are also collapsing due to the destruction of their habitats. These bees also play a vital role in pollinating crops and plants generally.

According to scientists, bees pollinate more than 70% of the crop species that supply 90% of the world's food. Given that the world's population is rapidly growing, more bees are needed to pollinate food crops. Scientists are calling for significant changes to how humans manage the planet so that honeybees survive and the world's food sources are protected.

Scientists worldwide are joining forces to pressure governments to implement measures to restore bee populations. The strategies being proposed include incentives that encourage farmers and landowners to restore habitats that are friendly to pollinators, stringent controls on chemical use and manufacture, and stricter quarantine measures between countries.

The collapse of honeybee colonies is a worldwide phenomena and this collapse is likely to continue ________________
31. “Stricter quarantine measures between countries” are being proposed to
(1) persuade countries to work together.
(2) assist crop sharing between countries.
(3) prevent countries’ misuse of chemicals.
(4) combat contamination across countries.

32. Which of these options would best complete the concluding sentence of this information text?
(1) because scientists are not being supported.
(2) while companies focus on long term profits.
(3) unless an international approach is taken on this issue.
(4) if the world’s population continues to grow at a rapid rate.

33. A key factor affecting wild bees is
(1) bee raising practices.
(2) environmental degradation.
(3) industrial scale agricultural methods.
(4) inability to pollinate crops and plants.

34. The main idea of the first paragraph is that
(1) bees are disappearing.
(2) commercial interests are at risk.
(3) world food supplies are decreasing.
(4) the agricultural industry is under threat.
35. निम्नलिखित में से किन वस्तुओं के लिए वैज्ञानिक कार्य कर रहे हैं?

(1) वैज्ञानिक उपगम को बढाना देना  
(2) पशुओं के रोग के चिकित्सक को बढ़ावा देना  
(3) मनुष्य जीवन तथा जागरूकता की वाढ़ का कारण 
(4) मश्तुमतियों की संख्या को बढ़ाने के लिए प्रजनन कार्यक्रम

36. पादय-पाद्य के अनुसार, वैज्ञानिकों का मुख्य संरक्षक क्या है?

(1) ग्राम की उत्पादन वृद्धि  
(2) अतिरिक्त वैज्ञानिक शक्ति कार्य करना  
(3) बढ़े पेयाब तथा कृषि करने के परियोजना में विविधता का अभाव  
(4) मश्तुमतियों की जनसंख्या तथा खाद्य-आपूर्ति की सुरक्षा के उपाय

प्रश्न (37-42): निम्नलिखित अनुच्छेद को पढ़ें तथा विवेचना करें।

35. Which one of the following strategies are scientists involved in?

(1) encouraging a global approach  
(2) expanding crop planting and harvesting  
(3) changing how humans manage the planet  
(4) breeding programs to increase bee numbers

36. According to the text, what is the scientists’ main concern?

(1) human survival  
(2) gathering additional scientific evidence  
(3) lack of variety in large scale farming methods  
(4) safeguarding bee populations and food supplies

Questions (37 – 42) : Read the following passage and answer the questions that follow:

Following the end of World War 1, France, Britain, USA, Japan and Italy, met in Paris to develop a plan for the future based on peace and justice. Although these nations appeared to support this goal, most had different motives. The European leaders (who blamed Germany for causing the war) wanted a financial payment and German lands from the Germans in return for their wartime losses. In contrast, the American President, Woodrow Wilson, promoted the need to establish global peace and justice and in doing so received worldwide praise and support.
The European leaders got what they wanted through the signing of the Treaty of Versailles in 1919 and Woodrow Wilson’s efforts led to the writing of the Covenant for The League of Nations in the same year.

The widespread support that Wilson received resulted in 42 countries, including India, joining The League of Nations in the belief that a global organisation of nations could maintain peace and prevent a repetition of the horrors of the First World War.

Although it had many successes, once the Second World War broke out it became obvious that the League of Nations was not as powerful as was first thought and that changes were needed. Nevertheless its goals and ideals were sound and these provided the basis for the formation of the modern day United Nations which currently has 193 member states.
39. The text suggests that members of the League of Nations believed that
(1) only European nations should join.
(2) peace between nations was important.
(3) Germany should pay to become a member.
(4) President Wilson could prevent another world war.

40. Which word best describes the European leaders’ goal?
(1) amends
(2) revenge
(3) retribution
(4) compensation

41. When was the League of Nations formed?
(1) when the countries met in Paris
(2) when the Treaty of Versailles was signed
(3) before the European leaders met to claim money and land from Germany
(4) following President Wilson’s campaign for peace and justice for all countries

42. The text suggests that Woodrow Wilson
(1) sought praise following the war.
(2) felt differently from the European leaders.
(3) thought that being friendly was important.
(4) felt that Germany needed a second chance.
43. A small area can be covered by 20 identical square tiles or 9 identical rectangular tiles. The length of the side of each square tile is a whole number, and this is 2 cm shorter than the longer side of each rectangular tile.

What is the length of the shorter side of the rectangular tile?

(1) 1 cm
(2) 3 cm
(3) 4 cm
(4) 5 cm

44. In a car park, there are 2 white cars for every 3 blue cars and for every 2 blue cars there are 5 silver cars. What is the least number of cars in the car park?

(1) 12
(2) 25
(3) 31
(4) 50

45. Disha measures the length of a classroom with 20 of her paces.
Anuj measures the length of the same classroom with 25 of his paces.

Which one of these statements is true?

(1) Disha’s pace is 80% of Anuj’s pace.
(2) Disha’s pace is 120% of Anuj’s pace.
(3) Disha’s pace is 125% of Anuj’s pace.
(4) Disha’s 10 paces are the same length as Anuj’s 15 paces.
46. Lockers for storing small items are found in some schools. The lockers in a school were numbered 1 to 100. These were all opened for cleaning. Manoj came past and closed every 5th locker. Arvi then came past and closed every even numbered locker that was open, and opened every even numbered locker that Manoj had closed.

How many lockers were left open after Manoj and Arvi had both gone past?

(1) 10
(2) 40
(3) 50
(4) 60

47. To enter a harbour, the captain of a ship needs the water to be at least 5 metres deep. The tide chart is shown below.

If the ship was to enter and leave the harbour on the same day, what would be the approximate maximum number of hours that it could remain in port?

(1) 2
(2) 6
(3) 8
(4) 12
48. This train blew its whistle as it came out of the tunnel. Fathima, who was standing 700 metres from the tunnel beside the straight railway line, heard it. The speed of the sound was 350 m/sec. Eighteen seconds after Fathima heard the whistle, the train reached the point at which she was standing beside the track. What was the train’s average speed over that 700 metre railway line?

(1) 2 m/s  
(2) 35 m/s  
(3) 37 m/s  
(4) 44 m/s

49. Sana wants to buy 19 balloons for a party. Of these
* most balloons need to be red.  
* 11 need to be blue or yellow.  
* at least one needs to be pink.

How many pink balloons can Sana buy?

(1) 4  
(2) 3  
(3) 2  
(4) 1
50. Part of India's new tax scale is shown below.

<table>
<thead>
<tr>
<th>Taxable Income</th>
<th>Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to ₹ 2,00,000</td>
<td>Nil</td>
</tr>
<tr>
<td>₹ 2,00,001 to ₹ 5,00,000</td>
<td>0 + 10% of income above ₹ 2,00,000</td>
</tr>
<tr>
<td>₹ 5,00,001 to ₹ 10,00,000</td>
<td>30,000 + 20% of income above ₹ 5,00,000</td>
</tr>
<tr>
<td>Above ₹ 10,00,000</td>
<td>1,30,000 + 30% of income above ₹ 10,00,000</td>
</tr>
</tbody>
</table>

Anshu pays ₹ 20,000 more tax than Batuk.

If Anshu earns ₹ 5,00,000 in that financial year, how much does Batuk earn?

(1) ₹ 1,00,000
(2) ₹ 2,00,000
(3) ₹ 3,00,000
(4) ₹ 4,00,000

51. In a 100 page book, pages 2 and 3 face each other. Similarly, pages 4 and 5 and 6 and 7 face each other. This pattern is repeated to the end of the book.

The sum of two facing pages could be

(1) 90
(2) 95
(3) 97
(4) 99
52. Fadi’s teacher scores each student’s final mark according to the given table. For his assignments, Fadi received a mark of 80. His final marks were 72.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Assignments</th>
<th>Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weightage</td>
<td>20%</td>
<td>80%</td>
</tr>
</tbody>
</table>

What marks did he get for his tests?
(1) 56
(2) 64
(3) 70
(4) 88

Questions (53–56) : Read the following passage and answer the questions that follow :

Everyone knows the expression *what goes up, must come down* but have you ever wondered exactly why things must come down? The fact is that all objects on and near the Earth are pulled towards the Earth’s centre by the Earth’s gravity. The force of gravity makes all falling objects travel faster and faster the longer they are falling. This is called gravitational acceleration. On Earth, the speed of a dropped object progressively increases by about 9.8 m/s for every second that it falls. This is just like what happens to a car’s speed as it accelerates away from a stop sign. A dropped hammer will have a speed of 9.8 m/s after its first second of travel, a speed of 19.6 m/s after two seconds and so on.

Other large masses such as the Moon, the Sun and other planets also have gravity, although it may be stronger or weaker than on Earth. The gravity that an object experiences on a planet’s surface is directly proportional to the planet’s mass and inversely proportional to the planet’s radius.
squared. So, a planet that has the same radius as the Earth (6400 km) but has twice the mass will have gravity that is twice as strong as the Earth's. A planet that has the same mass as the Earth (6 x 10^24 kg) but twice the radius will have gravity that is four times weaker than Earth's.

The Moon's gravity, for example, is one-sixth that of the Earth's. A hammer dropped on the Moon will fall much more slowly than it would on the Earth – it would increase in speed by only 1.6 m/s every second that it fell. On Jupiter, where gravity is two and a half times greater than on Earth, the hammer would fall more quickly, increasing its speed by 24.5 m/s every second it fell.

53. The graph below indicates the mass of the planets in our solar system against their radius.

Which one of the following planets has gravity that is half that of Jupiter's gravity?
(1) Earth
(2) Saturn
(3) Neptune
(4) Mercury
54. Identical hammers are dropped on the moon and on the Earth. At the end of each second that the hammers fall, the falling speed of each hammer is measured. The results for the first 5 seconds are shown in the table.

<table>
<thead>
<tr>
<th>Time after release (seconds)</th>
<th>Speed (metres/second)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On Earth</td>
</tr>
<tr>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>1</td>
<td>9.8</td>
</tr>
<tr>
<td>2</td>
<td>19.6</td>
</tr>
<tr>
<td>3</td>
<td>29.4</td>
</tr>
<tr>
<td>4</td>
<td>39.2</td>
</tr>
<tr>
<td>5</td>
<td>49.0</td>
</tr>
</tbody>
</table>

In a second experiment, the hammers are dropped on the Earth and the Moon from the same height at exactly the same time.

The Earth hammer was travelling at a speed of 68.6 m/s when it hit the ground.

Which of the following is the nearest to the speed of the Moon hammer when the Earth hammer strikes the ground?

(1) 4 m/s
(2) 6 m/s
(3) 11 m/s
(4) 12 m/s
55. A rock is dropped on a planet that has the same mass as the Earth. Its speed increases by 1.09 m/s every second that it falls.

Which of the following statements is true?

(1) The planet’s radius is 3 times larger than the Earth’s radius.

(2) The planet’s radius is 3 times smaller than the Earth’s radius.

(3) The planet has a radius 9 times larger than the Earth’s radius.

(4) The planet has a radius 9 times smaller than the Earth’s radius.

56. Mars has one-tenth of the Earth’s mass and a radius that is one-half of the Earth’s radius. Therefore, the value of Mars gravity divided by Earth gravity will be

(1) 0.2

(2) 0.4

(3) 5.0

(4) 2.5
Questions (57 - 60): Read the following passage and answer the questions that follow:

Passwords – literally words that had to be spoken to a guard in order to be allowed to pass – have been used since ancient times to keep people, areas, and ideas secure. In the modern world, the passwords that we enter into computers protect our bank accounts and identities. A password that is easy for someone else to guess is said to be “weak”. Many websites help us keep our information secure by advising us of our password’s strength rating (weak, moderate, strong or very strong) as we enter it. This rating is determined by an automatic scoring system. A password’s security score depends on how many characters are used, the type of character, and the order in which the characters are arranged. Some of these aspects are considered favourable and attract points, while others attract penalties. Each of these aspects needs to be considered independently. The final score is calculated by subtracting the penalties from the points gained.
The following table shows a typical password scoring system:

<table>
<thead>
<tr>
<th>Aspects which need to be considered</th>
<th>प्रतीक/Symbol</th>
<th>अंक/Points</th>
<th>रेंड/Penalties</th>
</tr>
</thead>
<tbody>
<tr>
<td>लगभग शब्द की संख्या (विरामचिन्ह-विभाजन के लिए)</td>
<td>C</td>
<td>C x 4</td>
<td></td>
</tr>
<tr>
<td>Number of characters (includes punctuation marks)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>अप्रेश्चाण्ड-अत्तरों की संख्या</td>
<td>U</td>
<td>U x 2</td>
<td></td>
</tr>
<tr>
<td>Number of uppercase letters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>लोहद्वार-अक्ष की संख्या</td>
<td>Lc</td>
<td>Lc x 2</td>
<td></td>
</tr>
<tr>
<td>Number of lowercase letters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>अंकों की संख्या</td>
<td>D</td>
<td>D x 4</td>
<td></td>
</tr>
<tr>
<td>Number of digits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>प्रश्न और अतिम लक्षणों के बीच अंकों की संख्या</td>
<td>M</td>
<td>M x 2</td>
<td></td>
</tr>
<tr>
<td>Number of digits between first and last characters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>संकेत-शब्द में केवल अंक हैं</td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Password has letters only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>संकेत-शब्द में केवल अंक हैं</td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Password has digits only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>एक ही लक्षण की पुनरावृत्ति की संख्या</td>
<td>T</td>
<td>T x 2</td>
<td></td>
</tr>
<tr>
<td>Number of times that the same character is used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>अप्रेश्चाण्ड के क्रमानुसार अक्षरों की संख्या (जैसे PLA, AGB)</td>
<td>Cu</td>
<td>Cu x 2</td>
<td></td>
</tr>
<tr>
<td>Number of consecutive uppercase letters (e.g. PLA, AGB)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>लोहद्वार के क्रमानुसार अक्षरों की संख्या (जैसे way, xe)</td>
<td>Cl</td>
<td>Cl x 2</td>
<td></td>
</tr>
<tr>
<td>Number of consecutive lowercase letters (e.g. way, xe)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>आपूर्तिक अक्षरों की संख्या (जैसे abc, EFGH)</td>
<td>S</td>
<td>S x 2</td>
<td></td>
</tr>
<tr>
<td>Number of sequential letters (e.g. abc, EFGH)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>आपूर्तिक अंकों की संख्या (जैसे 2,3,4,5)</td>
<td>Sd</td>
<td>Sd x 2</td>
<td></td>
</tr>
<tr>
<td>Number of sequential digits (e.g. 2,3,4,5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>अंक/रेंड / Points/Penalties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>अतिरिक्त नामक्य / Final score</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>प्राप्ति/Score</th>
<th>29 या कम/29 or less</th>
<th>30 - 59</th>
<th>60 - 79</th>
<th>80 या अधिक/80 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>विकल्प/Strength</td>
<td>तुर्कल/weak</td>
<td>संतुलित/moderate</td>
<td>जबल/strong</td>
<td>अति जबल/very strong</td>
</tr>
</tbody>
</table>
The following example shows how the password DOG123 would be scored.

(Note: The aspects that don't apply to this password have been shaded)

<table>
<thead>
<tr>
<th>Aspect</th>
<th>अंक / Points</th>
<th>दंड / Penalties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of characters</td>
<td>C × 4 = 6 × 4 = 24</td>
<td></td>
</tr>
<tr>
<td>Number of uppercase letters</td>
<td>U × 2 = 3 × 2 = 6</td>
<td></td>
</tr>
<tr>
<td>Number of lowercase letters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of digits (numbers)</td>
<td>D × 4 = 3 × 4 = 12</td>
<td></td>
</tr>
<tr>
<td>Number of digits between first and last characters</td>
<td>M × 2 = 2 × 2 = 4</td>
<td></td>
</tr>
<tr>
<td>Password has letters only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Password has digits only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of times that the same character is used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of consecutive uppercase letters</td>
<td>Cu × 2 = 3 × 2 = 6</td>
<td></td>
</tr>
<tr>
<td>Number of consecutive lowercase letters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of sequential letters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of sequential digits</td>
<td>Sd × 2 = 3 × 2 = 6</td>
<td></td>
</tr>
<tr>
<td>अंक / दंड / Points/Penalties</td>
<td>46</td>
<td>12</td>
</tr>
<tr>
<td>अंतिम ग्रंथांक / Final score</td>
<td>46 - 12 = 34</td>
<td></td>
</tr>
</tbody>
</table>

A final score of 34 means that DOG123 has a “moderate” strength rating in this scoring system.
57. Rohith wants to use a 6-character password made up of identical characters.

Which of the following passwords would give him the highest security score?

(1) 555555
(2) rrrrrr
(3) RRRRRR
(4) ???????

58. Supipi created a 6 character password made up of letters and numbers only. A week later, she recalls the first 5 characters but has forgotten the 6th character as shown:

A v 1 3 G ?

Supipi remembers that the last character is a repeat of one of the other characters and that the security score was 42.

The last character would have been

(1) v
(2) G
(3) either 1 or 3
(4) either A or G
59. वीरा को एक संकेत-शब्द को तरह प्रयोग करना चाहती है।
इस संकेत-शब्द का सुरक्षा ग्राम्यांक क्या है?
(1) 22
(2) 24
(3) 34
(4) 38

60. एक संकेत-शब्द 10 अनुक्रमिक आधारपूर्ण अक्षरों, जैसे ABCDEFGHIJ, से बना है।
इस संकेत-शब्द की उच्चतम सुरक्षा ग्राम्यांक क्या हो सकती है?
(1) कमजोर
(2) संतुलित
(3) ग्राम्य
(4) अतिग्राम्य