

KV CLASSES

MOCK TEST

Address :- Shivpuri Nahar Road, Araria - 854311

Call Us :- 7903584042, 9570821377

Time Allowed : 60 Minutes

निर्धारित समय : 60 मिनट

SSC CHSL SET 01

Maximum Marks : 200

अधिकतम अंक : 200

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

प्रश्नों के उत्तर देने से पहले नीचे लिखे अनुदेशों को ध्यान से पढ़ लें।

INSTRUCTIONS TO CANDIDATES

उम्मीदवारों के लिए अनुदेश

- This booklet contains 100 questions in all comprising the following 4 tests:
 - General Intelligence (25 Ques.)
 - General Awareness (25 Ques.)
 - Quantitative Aptitude (25 Ques.)
 - English Language (25 Ques.)
- All questions are compulsory and each question carries 2 marks.
- Before you start answering the questions you must check up this booklet and ensure that it contains all the pages and see that no page is missing or repeated. If you find any defect in this booklet, you must get it replaced immediately.
- There will be 0.50 negative marking for wrong answer.
- You will be supplied the answer Sheet separately by the invigilator. You must complete the details of Ticket Number, Roll Number, Question Booklet No. etc. On Side-I of the Answer Sheet carefully, as per detailed instructions supplied along with the admission Certificate, before you actually start answering the questions, failing which your answer sheet will not be evaluated and you will be awarded 'ZERO' marks.
- Answer Must be shown by completely blackening the corresponding rectangles on Side-II of the Answer Sheet against the relevant question number by **Black/Blue Ball Point Pen** only. Answer which are not shown by **Black/Blue Ball Point Pen** will not be awarded any marks.
- The Answer Sheet must be handed over to the Invigilator before you leave the Examination Hall.
- Failure to comply with any of the above instructions will render a candidate liable to such action/Penalty as may be deemed fit.
- 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.
- No rough work done on the Answer Sheet. Space for rough work has been provided below the questions Side - I of this booklet.

- इस पुस्तिका में कुल 100 प्रश्न हैं, जिनके निम्नलिखित 4 भाग शामिल हैं:
 - General Intelligence (25 Ques.)
 - General Awareness (25 Ques.)
 - Quantitative Aptitude (25 Ques.)
 - English Language (25 Ques.)
- सभी प्रश्न अनिवार्य हैं तथा प्रत्येक प्रश्न 2 अंक के बराबर है।
- प्रश्नों के उत्तर देने से पहले आप इस पुस्तिका की जाँच करके देख लें कि इसमें पूरे पृष्ठ हैं तथा कोई पृष्ठ कम या दुबारा तो नहीं आ गया है। यदि आप इस पुस्तिका में कोई त्रुटि पायें तो तत्काल इसे बदले, दूसरी पुस्तिका ले लें।
- गलत उत्तर के लिए नकारात्मक अंक 0.50 होगा।
- निरीक्षक द्वारा आपको उत्तर-पत्रिका अलग से दी जायेगी। प्रश्नों के उत्तर वास्तव में शुरू करने से पहले आप उत्तर पत्रिका के भाग -I में अपना टिकट नम्बर, रोल नम्बर, प्रश्न पुस्तिका संख्या तथा अन्य ब्यौरे भी अवश्य लिखें जैसा कि प्रवेश पत्र के साथ भेजे गये अनुदेशों में बताया गया है। अन्याथा आपकी उत्तर पत्रिका को जाँचा नहीं जायेगा और शून्य अंक दिया जायेगा।
- उत्तर पत्रिका के सभी उत्तर भाग -II में प्रश्न संख्या के सामने दिये गये संबंधित आयताकार खानों को **काले/नीले बॉल पॉइंट पेन** से पूरी तरह काला करके दिखायें। जो आयताकार खाने **काले/नीले बॉल पॉइंट पेन** से नहीं भरे जायेंगे, उनके लिए कोई अंक नहीं दिया जायेगा।
- परीक्षा-भवन छोड़ने से पहले परीक्षार्थी को उत्तर-पत्रिका निरीक्षक के हवाले कर देनी चाहिए।
- ऊपर के अनुदेशों में से किसी एक का भी पालन न करने पर उम्मीदवार पर विवेकानुसार कार्यवाही की जा सकती है या दण्ड दिया जा सकता है।
- प्रश्नों के उत्तर जितनी जल्दी हो सके तथा ध्यानपूर्वक दें। कुछ प्रश्न आसान तथा कुछ कठिन हैं। किसी एक प्रश्न पर बहुत अधिक समय न लगायें।
- कोई स्थाय उत्तर पुस्तिका पर नहीं करना है। रफ कार्य के लिए स्थान इसी पुस्तिका के भाग -I के प्रश्नों के निचे दिया गया है।

NAME OF CANDIDATE

DATE ROLL NO

TEST No. CENTRE CODE

इस पुस्तिका की सील तब तक न खोले जब तक कहा न जाए।

SIGNATURE OF INVIGILATOR

1. REASONING

Directions (1 – 3) : In each of the following questions, select the related letter/word/number from the given alternatives.

निर्देश (1 – 3) : निम्न प्रत्येक प्रश्न में दिए गए विकल्पों में से सम्बन्धित अक्षर/शब्द/संख्या को चुनिए।

- Horse : Mare :: ?
घोड़ा : घोड़ी :: ?
(1) Fox : Vixen/फॉक्स : विक्सन
(2) Duck : Geese/बत्तख : कलहंस
(3) Dog : Puppy/कुत्ता : पिल्ला
(4) Donkey : Pony/गधा : टट्टू
- Oceans : Deserts :: Waves : ?
महासागर : रेगिस्तान :: लहरें : ?
(1) Dust/धूलू (2) Sand Dunes/रेत का टीला
(3) Ripples/लहर (4) Sea/सागर
- 38 : 144 :: 54 : ?
(1) 80 (2) 178
(3) 100 (4) 52

Directions (4 – 6) : Find the odd word/letters/number pair/number from the given alternatives.

निर्देश (4 – 6) : दिये गए विकल्पों में से विषम शब्द/अक्षर/संख्या युग्म/संख्या को चुनिए।

- (1) Vapour/वाष्प (2) Mist/धुंध
(3) Hailstone/ओला (4) Fog/कोहरा
- (1) Mew/म्याऊ (2) Howl/हाउल
(3) Bark/भौंकना (4) Shout/चिल्लाना
- (1) EDUCATION (2) BEHAVIOUR
(3) LAZINESS (4) REMUNERATION
- Sheela walks from A to B which is 2 km away, turns right at 90° and walks for 3 kms to point C, turns right at 90° and walks to D which is 8 km away, turns 90° right and goes 3 km to point E. Then, once again she turns right, 90 and walks 4 km to point F. How far is it from A to F?
शीला A से B जो कि 2 किमी. दूर है, चलकर जाती है, दाएं ओर 90° पर मुड़ती है तथा बिन्दु C की ओर 3 किमी. जाती है, 90° पर दाएं ओर मुड़ती है तथा D की ओर चलती है जो कि 8 किमी. दूर है, 90° पर दाएं ओर मुड़ती है तथा 3 किमी. E की ओर जाती है। उसके बाद फिर से वी दाएं ओर 90° मुड़ती है तथा F की ओर 4 किमी. जाती है। A से F तक की दूरी क्या है?
(1) 2 km/किमी. (2) 4 km/किमी.
(3) 6 km/किमी. (4) 8 km/किमी.
- If clock is called television, television is called radio, radio is called oven, oven is called grinder and grinder is called iron, in what will a lady bake?
यदि घड़ी को टेलीविजन कहा जाता है, टेलीविजन को रेडियो कहा जाता है, रेडियो को ओवन कहा जाता है, ओवन को ग्राइंडर कहा जाता है तथा ग्राइंडर को लोहा कहा जाता है, तो महिला सेंकने का काम किसमें करेगी?
(1) Radio/रेडियो (2) Oven/ओवन
(3) Grinder/ग्राइंडर (4) Iron/लोहा

- A, B, C, D, E, F and G are members of a family consisting of four adults and three children. Two of the family members, F and G are girls. A and D are brothers and A is a doctor. E is an engineer married to one of the brothers and has two children, a boy and girl. B is married to D and G is their child. Who is C?
A, B, C, D, E, F तथा G किसी परिवार के सदस्य हैं, जिसमें चार व्यस्क तथा तीन बच्चे हैं। परिवार के दो सदस्य F तथा G लड़कियाँ हैं। A तथा D भाई हैं तथा A डॉक्टर है। E एक इंजीनियर है, जो कि उनमें से किसी एक भाई से विवाहित है तथा उनके दो बच्चे हैं, एक लड़का और एक लड़की। B, D से विवाहित है और G उनके बच्चे है। C कौन है?
(1) E's daughter/E की बेटी
(2) F's father/F का पिता
(3) G's brother/G का भाई
(4) A's son/A का बेटा

- Suresh is 7 ranks ahead of Ashok in the class of 39 students. If Ashok's rank is 17th from the last, then what is Suresh's rank from the start?
39 छात्रों वाले किसी वर्ग में, स्थान के आधार पर सुरेश अशोक से 7 ऊपर है। यदि अशोक का स्थान अंत से 17वां है, तो सुरेश का प्रारंभ से कितना स्थान है?
(1) 16th/वाँ (2) 23rd/वाँ
(3) 24th/वाँ (4) 15th/वाँ

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(1) 16th/वाँ (2) 23rd/वाँ
(3) 24th/वाँ (4) 15th/वाँ

Directions (11-13) : In the following questions, a series is given with one terms missing. Choose the correct alternative from the given ones that will complete the series:

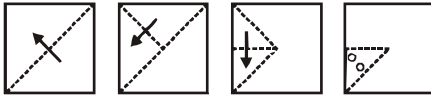
- (1) 16th/वाँ (2) 23rd/वाँ
(3) 24th/वाँ (4) 15th/वाँ

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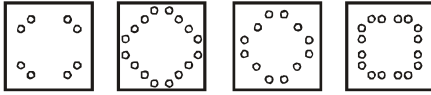
निर्देश (11-13) : निम्नलिखित प्रश्नों में, एक अनुक्रम दिया गया है जिसमें एक पद लुप्त है। दिए गए विकल्पों में से वह सही विकल्प चुनिए जो अनुक्रम को पूरा करें।

- BXJ, ETL, HPN, KLP, ____
(1) NHR (2) MHQ
(3) MIP (4) NIR
- M, N, O, L, R, I, V, ____
(1) A (2) E
(3) F (4) H
- 2, 1, 2, 4, 7.5, ____
(1) 13.5 (2) 14.25
(3) 14.75 (4) 15.25
- Arrange the words given below in a meaningful sequence.
निम्न शब्दों को एक सार्थक क्रम में व्यवस्थित करें।
1. Publish/प्रकाशन 2. Imagine/विचार करना
3. Write/लिखना 4. Proof read/पूफ़ शोधन
5. Print/छपाई
(1) 2, 4, 3, 1, 5 (2) 4, 2, 1, 3, 5
(3) 2, 3, 1, 4, 5 (4) 2, 3, 5, 4, 1
- A square sheet of paper has been folded and punched as shown below. How will it appear when opened?
कागज के एक वर्गाकार शीट को नीचे दर्शाए अनुसार मोड़ा तथा पंच किया जाता है। खोलने पर यह कैसा दिखेगा?

Question figures/प्रश्न आकृतियाँ :



Answer figures/उत्तर आकृतियाँ :



(1) (2) (3) (4)

16. From the given alternative words, select the words which can't be formed by using the letters of the given word.

दिए गए वैकल्पिक शब्दों में से, उस शब्द का चयन करें, जो दिए गए शब्द के अक्षरों का प्रयोग कर नहीं बनाए जा सकते हैं।

DISSEMINATION

- (1) INDIA (2) MENTION
(3) NATIONS (4) ACTION

17. Which of the following numbers is wrong in the given series?

दिए गए श्रृंखला में निम्न में से कौन-सी संख्या गलत है?

21, 28, 33, 35, 37, 36

- (1) 21 (2) 36
(3) 33 (4) 35

- Direction (18-20) : In question no 18 to 20, select the missing number from the give responses.

निर्देश (18-20) : प्रश्न संख्या 18 से 20 में, दिए गए विकल्पों में से विलुप्त संख्या चुनिए।

18.

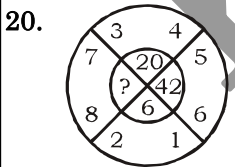
1	2	1	4	4
2	5	6	2	5
1	9	3	?	1
1	7	2	8	9

- (1) 9 (2) 4
(3) 5 (4) 6

19.

2	3	4	21
1	3	5	15
3	4	2	?

- (1) 29 (2) 45
(3) 56 (4) 51



- (1) 72 (2) 80
(3) 56 (4) 70

21. If "Behind every successful man there is a woman" can be coded as "63520019052401052", then what is the code of "Empty vessels makes much noise"? यदि "Behind every successful man there is a woman" को "63520019052401052" से कूटित किया जा सकता है, तो "Empty vessels makes much noise" का कूट क्या है?

- (1) 5261529452 (2) 6268264862
(3) 6226482462 (4) 5294526152

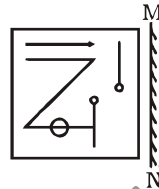
22. If $12 \times 7 = 408$, $9 \times 8 = 207$ then $13 \times 7 = ?$
यदि $12 \times 7 = 408$, $9 \times 8 = 207$ है, तो $13 \times 7 = ?$

- (1) 91 (2) 190
(3) 901 (4) 109

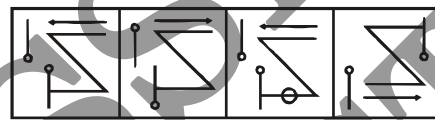
23. If a mirror is placed on the line MN, then which of the answer figures will be the right image of the question figure?

यदि दर्पण को रेखा MN पर रखा जाए, तो उत्तर आकृतियों में से कौन, प्रश्न आकृति का सही प्रतिबिंब होगा?

Question figure/प्रश्न आकृति:



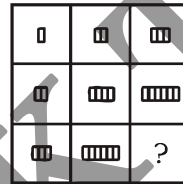
Answer figures/उत्तर आकृतियाँ:



(1) (2) (3) (4)

24. Select a suitable figure from the four alternatives that would complete the given figure.

चार विकल्पों में से उचित आकृति का चयन करें, जो दिए गए आकृति को पूरा करेगी।



- (1) (2)
(3) (4)

25. Which of the following diagrams indicates the best relation between Sister, Woman and Mother ?

निम्न में से कौन-सी आकृति बहन, औरत तथा माता के बीच संबंध इंगित करती है?

- (1) (2)
(3) (4)

2. GENERAL AWARENESS

26. Who gave the title of "Mahamana" to Madan Mohan Malviya?

मदन मोहन मालवीय को "महामना" की पदवी किसने दी थी?

- (1) Dada Bhai Naoroji/दादाभाई नौरोजी
(2) Gopal Krishna Gokhale/गोपाल कृष्ण गोखले
(3) Mahatma Gandhi/महात्मा गांधी
(4) Bal Gangadhar Tilak/बाल गंगाधर तिलक

27. Antigen is a substance which:

प्रतिजन एक पदार्थ है जो-

- (1) Destroys harmful bacteria/
हानिकारक जीवाणुओं को नष्ट करता है
- (2) Is used to treat poisoning/
विषाक्तिकरण के उपचार के लिए प्रयोग होता है
- (3) Lowers body temperature/
शरीर के तापमान को कम करता है
- (4) Stimulates formation of antibody/
प्रतिरक्षी के निर्माण को उत्तेजित करता है
28. Which committee has been constituted to convert 100% Government - Citizen Transactions to the digital platform?
किस समिति का गठन सरकार नागरिक लेन-देन को डिजिटल प्लेटफार्म पर 100 प्रतिशत में बदलने के लिए गठित की गई है?
- (1) Piyush Goyal committee/पीयूष गोयल समिति
(2) Arun Jaitely committee/अरूण जेटली समिति
(3) Kirti Parekh committee/कीर्ति पारेख समिति
(4) Amitabh Kant committee/अमिताभ कांत समिति
29. Which one of the following has the highest fuel value?
निम्न में से किस ईंधन का उच्चतम मान है?
- (1) Hydrogen/हाइड्रोजन
(2) Charcoal/चारकोल
(3) Natural gas/प्राकृतिक गैस
(4) Gasoline/पेट्रोल
30. A Mughal Queen whose name was written on all the Mughal Farmans and inscribed on the coins was
एक मुगल महारानी जिसका नाम सभी मुगल फरमानों पर लिखा जाता था और सिक्कों पर उसका नाम खुदा था?
- (1) Maham Anana/महम अनना
(2) Nurjahan/नूरजहाँ
(3) Mumtaz Mahal/मुमताज महल
(4) Mariam Makani/मरियम मकानी
31. Regarding the atom of a chemical element, the magnetic quantum number refers to
रासायनिक तत्व के एक परमाणु के संबंध में चुंबकीय क्वांटम संख्या दर्शाता है-
- (1) Orientation/दिशानिर्देश
(2) Shape/आकार
(3) Size/परिणाम
(4) Spin/झुकाव
32. Two wires have their lengths, diameters and resistivities all in the ratio of 1 : 2. If the resistance of the thinner wire is 10 ohm, the resistance of the thicker wire is:
दो तारों की लंबाई, व्यास और प्रतिरोधकता का अनुपात 2 : 1 है। यदि पतले तार का प्रतिरोध 10 ओम है तो मोटे तार का प्रतिरोध होगा-
- (1) 5 ohm/ओम
(2) 10 ohm/ओम
(3) 20 ohm/ओम
(4) 40 ohm/ओम
33. Which of the following has become the India's first e-assembly constituency?
निम्न में से कौन-सा भारत का पहला ई-विधानसभा क्षेत्र बन गया है?
- (1) Dharamshala assembly constituency/
धर्मशाला विधानसभा क्षेत्र
- (2) Palampur assembly constituency/
पालमपुर विधानसभा क्षेत्र
- (3) Rinchenpong assembly constituency/
रिन्चेंपोंग विधानसभा क्षेत्र
- (4) Chujachen assembly constituency/
चुजचें विधानसभा क्षेत्र
34. What is the theme of 2016 International Day for the Elimination of Violence against Women?
महिलाओं के खिलाफ हिंसा के उन्मूलन के लिए अंतर्राष्ट्रीय दिवस 2016 का विषय (थीम) क्या है?
- (1) Orange your neighborhood/औरेंज योर नेबरहुड
(2) Orange the world/औरेंज दी वर्ल्ड
(3) Orange the life/औरेंज दी लाइफ
(4) Orange the people/औरेंज दी पीपल
35. The book "Banaras City of Light" has been authored by whom?
पुस्तक "बनारस सिटी ऑफ लाईट" किसके द्वारा लिखी गई है?
- (1) Vrinda Grover/वृंदा ग्रीवर
(2) Diana Eck/डायना ईक
(3) Mini Kapoor/मिनी कपूर
(4) Sanjaya Baru/संजय बारू
36. With reference to the evolution of living organisms, which one of the following sequence is correct?
सजीव प्राणी के उत्पत्ति के संदर्भ में, निम्न में से एक सही क्रम है?
- (1) Octopus-Dolphin-Shark/ ऑक्टोपस-डॉल्फिन-शाक
(2) Pangolin-Tortoise-Hawk/ छिपकली-कछुआ-बाज
(3) Salamander-Python-Kangaroo/
सालामेंडर-अजगर-कंगारू
(4) Frog-Crab-Prawn/ मेंढक-क्रेकड़ा-झींगा
37. Which of the following entities has launched India's first payment bank?
निम्नलिखित में से किस संस्था ने भारत का पहला भुगतान बैंक का शुभारंभ किया है?
- (1) Reliance Industries/रिलायंस इंडस्ट्रीज
(2) Airtel M Commerce Services/एयरटेल एम कॉमर्स सर्विसेज
(3) Vodafone M-Pesa/वोडाफोन एम-पैसा
(4) FINO PayTech/एफआईएनओ पेटेक
38. Consider the following:
निम्न पर विचार करें-
1. Carbon dioxide/कार्बन डाइऑक्साइड
2. Oxides of nitrogen/नाइट्रोजन ऑक्साइड
3. Oxides of sulphur/सल्फर ऑक्साइड
- Which of the above is/are the emissions from coal combustion at thermal power plants?
ताप विद्युत संयंत्रों में कोयला दहन से निम्नलिखित में से किस का स्खलन होता है?
- (1) 1 only/केवल 1
(2) 2 and 3 only/केवल 2 और 3
(3) 1 and 3 only/केवल 1 और 3
(4) 1, 2 and 3/1, 2 और 3
39. Which one of the following stars is nearest to the Earth?

निम्नलिखित तारों में से पृथ्वी के सबसे नजदीक है-

- (1) Polaris/पोलारिस स्टार
- (2) Alpha Centauri/अल्फा सेंचूरी
- (3) Sun/सूर्य
- (4) Sirius/लुब्धक स्टार

40. Cryogenic engines have applications in:

क्रायोजनिक इंजन का इस्तेमाल किया जाता है-

- (1) Submarine propulsion/पनडुब्बी प्रणोदन में
- (2) Frost-free refrigerators/ठंड मुक्त रेफ्रिजरेटर में
- (3) Rocket technology/रॉकेट प्रौद्योगिकी में
- (4) Research in superconductivity/ अतिचालकता के अन्वेषण में

41. The waterfall 'Victoria' is associated with the river: "विक्टोरिया" जलप्रपात किस नदी से संबंधित है?

- (1) Amazon/अमेजन नदी
- (2) Missouri/मिसौरी नदी
- (3) St. Lawrence/सेंट लॉरेन्स नदी
- (4) Zambezi/जेम्बेजी नदी

42. Which one of the following is printed on a commonly used fluorescent tube light?

निम्न में से कौन-सा आमतौर पर इस्तेमाल की जाने वाली प्रतिदीप्ति ट्यूब लाइटों पर छपा होता है?

- (1) 220 K (2) 273 K
- (3) 6500 K (4) 9000 K

43. Match the items in List-I with items in List-II and select the correct answer using the codes given below.

सूची-I को सूची-II से सुमेलित कर नीचे दिए गए सूचियों के प्रवृष्टियों में मौजूदा कूटों का प्रयोग करके सही उत्तर चयन करें।

List-I/सूची-I

List-II/सूची-II

- | | |
|------------------------------|---|
| a. Adrenaline/
एड्रिनेलिन | 1. Anger, fear, danger/
क्रोध, भय, खतरा |
| b. Estrogen/
एस्ट्रोजेन | 2. Attracting partners
through sense of smell/
गंध की भावना के जरिए सहभागी
को आकर्षित करना |
| c. Insulin/इंसुलिन | 3. Females/महिला |
| d. Pheromones/
फेरोमोनस | 4. Glucose/ग्लूकोज |

Codes/कूट:

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

44. The tribal population in Andaman and Nicobar islands belongs to the:

अंडमान और निकोबार द्वीप समूह के आदिवासी संबंधित है-

- (1) Australoid race/ऑस्ट्रेलॉयड प्रजाति से
- (2) Caucasoid race/यूरोपीय प्रजाति से
- (3) Mongoloid race/मंगोलॉयड रेस से
- (4) Negroid race/नेग्रॉयड प्रजाति से

45. As income increases the demand for interior goods:

आय में वृद्धि होने पर निकृष्ट वस्तुओं की मांग-

- (1) increases/बढ़ेगी
- (2) remains constant/स्थिर रहती है
- (3) fluctuates/अस्थिर रहती है
- (4) decreases/घटेगी

46. The term of the Lok Sabha:

लोकसभा का कार्यकाल-

- (1) Cannot be extended under any circumstances/
किसी भी परिस्थिति में बढ़ाया नहीं जा सकता
- (2) Can be extended by six months at a time/एक
समय में छह महीने के लिए नहीं बढ़ाया जा सकता है
- (3) Can be extended by one year at a time during
the proclamation of emergency/ आपातकाल घोषणा
की स्थिति में एक समय पर एक साल तक बढ़ाया जा सकता
है
- (4) Can be extended for two years at a time during
the proclamation of emergency/ आपातकाल घोषणा
की स्थिति में एक समय पर दो साल के लिए बढ़ाया जा सकता
है

47. When Cripps Mission came to India, who among the following was Viceroy of India?

जब क्रिप्स मिशन भारत आया तो निम्नलिखित में से कौन भारत का वायसराय था?

- (1) Lord Irwin/लॉर्ड इर्विन
- (2) Lord Linlithgo/लॉर्ड लिनलिथगो
- (3) Lord Wavell/लॉर्ड वेवेल
- (4) Lord Willingdon/लॉर्ड विलिंगडन

48. In the case of election to the Lok Sabha, the amount of Security deposited for general category candidates and SC/ST category candidates respectively is:

लोकसभा के चुनाव की स्थिति में सामान्य वर्ग और अनुसूचित जाति/अनुसूचित जनजाति वर्ग के उम्मीदवारों के लिए क्रमशः कितनी जमानत राशि जमा की जाती है?

- (1) ₹ 5,000 and/और ₹ 2,500
- (2) ₹ 10,000 and/और ₹ 2,500
- (3) ₹ 10,000 and/और ₹ 5,000
- (4) ₹ 15,000 and/और ₹ 7,500

49. Which Bollywood actor has won the "Best Performance by an Actor" award at the 2016 Asia Pacific Screen Awards?

किस बॉलीवुड अभिनेता ने 2016 एशिया प्रशांत स्क्रीन अवार्ड्स में "एक अभिनेता के द्वारा सर्वश्रेष्ठ अभिनय" का पुरस्कार जीता है?

- (1) Manoj Bajpayee/मनोज बाजपेयी
- (2) Johnny Lever/जोनी लीवर
- (3) Danny Denzongpa/डैनी डैनजॉन्ग्पा
- (4) Nawazuddin Siddiqui/नवाजुद्दीन सिद्दीकी

50. Which one among the following is the top processor of the computer in the world?

निम्नलिखित में से कौन दुनिया में कंप्यूटर के टॉप प्रोसेसर में से एक है?

- (1) Intel/इंटेल
- (2) Optron/ऑप्ट्रोन
- (3) Conslly/कॉन्सली
- (4) None of these/इनमें से कोई नहीं

3. QUANTITATIVE APTITUDE

51. Given $x = y + 37437 \times 37439$. Find the value of y for which the square root of number x is possible.

$x = y + 37437 \times 37439$ दिया गया है। y का मान ज्ञात करें, जिससे संख्या x का वर्गमूल निकालना संभव हो।

- (1) 1 (2) 2
(3) 3 (4) 4

52. If $2^x \times 2^y = 8$ and $9^x \times 3^y = 81$, then the value of $x^2 + y^2 - 2xy + 1$.

यदि $2^x \times 2^y = 8$ तथा $9^x \times 3^y = 81$ है, तो $x^2 + y^2 - 2xy + 1$ का मान है-

- (1) 1 (2) 2
(3) 3 (4) 0

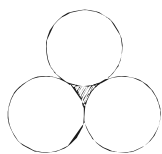
53. A student can solve more than 50, but less than 90 tricky questions in an hour. The number of questions is 3 more than a multiple of 5. It is also 2 more than a multiple of 6. How many question is he solving in an hour.

एक विद्यार्थी एक घंटे में 50 से ज्यादा एवं 90 से कम कठिन प्रश्नों का हल निकाल सकता है। प्रश्नों की संख्या 5 के गुणनफल से 3 अधिक है। यह 6 के गुणनखंड से भी 2 अधिक है। वह एक घंटे में कितने प्रश्नों को हल कर रहा है?

- (1) 58 (2) 88
(3) 68 (4) 54

54. Find the area of shaded region, if radius of a circle is 2 cm.

छायांकित क्षेत्र का क्षेत्रफल ज्ञात करें। यदि वृत्त की त्रिज्या 2 सेमी. हो।



(1) $2\sqrt{3} - p \text{ cm}^2 / \text{सेमी}^2$ (2) $\frac{2}{\sqrt{3}} - \frac{p}{2} \text{ cm}^2 / \text{सेमी}^2$

(3) $4\sqrt{3} - 2p \text{ cm}^2 / \text{सेमी}^2$ (4) $\frac{4-p}{\sqrt{3}} \text{ cm}^2 / \text{सेमी}^2$

55. In a equation $3x + 5y = 93$. How many different value of x is possible, if x and y are some natural numbers.

समीकरण $3x + 5y = 93$ में x के कितने मान संभव है, यदि x तथा y कोई प्राकृतिक संख्या हो?

- (1) 5 (2) 6
(3) 7 (4) 8

56. ₹ 100 is doubled in 5 years, when compounded annually. How many more years will it take now to get ₹ 200 more as compound interest.

वार्षिक चक्रवृद्धि ब्याज से ₹ 100 पाँच साल में दुगना हो जाता है। ₹ 200 और अधिक चक्रवृद्धि ब्याज होने के लिए अब कितने वर्ष और लगेंगे।

- (1) 5 yrs/वर्ष (2) 7.5 yrs/वर्ष
(3) 8 yrs/वर्ष (4) 10 yrs/वर्ष

57. In ΔABC , $\frac{\cos A}{a} = \frac{\cos B}{b} = \frac{\cos C}{c}$, then what can be said about the given triangle?

यदि ΔABC में $\frac{\cos A}{a} = \frac{\cos B}{b} = \frac{\cos C}{c}$ हो, तो दिए गए त्रिभुज के विषय में क्या कहा जा सकता है?

- (1) Right angled triangle / समकोण त्रिभुज
(2) Isosceles triangle/ समद्विबाहु त्रिभुज
(3) Equilateral triangle/ समबाहु त्रिभुज
(4) Can't be determind/ पता नहीं लगा सकते

58. 20% of the men are more than 25 years old and 80% of the men are less than or equal to 50 years old. 20% of all men play football. If 20% of the men above the age of 50 play football, what percentage of the football players are less than or equal to 50 years?

20% व्यक्ति 25 वर्ष से अधिक उम्र के है तथा 80% व्यक्ति 50 से कम या उसके बराबर उम्र के है। सभी व्यक्तियों में से 20% व्यक्ति फुटबॉल खेलते है। यदि 50 से अधिक उम्र के 20% व्यक्ति फुटबॉल खेलते हों, तो कितने प्रतिशत फुटबॉल खिलाड़ी 50 से कम या उसके बराबर उम्र के है?

- (1) 15% (2) 20%
(3) 80% (4) 70%

59. If the price of petrol increases by 25% and Simran intends to spend only an additional 15% on petrol, by how much % will she have to reduce the quantity of petrol purchased?

यदि पेट्रोल की कीमत 25% बढ़ जाती है तथा सिमरन अपने खर्च में केवल 15% की बढ़ोतरी करने को इच्छुक है, तो उसे पेट्रोल के खर्च में कितने % की कमी करनी होगी?

- (1) 10% (2) 12%
(3) 8% (4) 12.5%

60. A merchant mixes three varieties of rice costing ₹ 20/kg, ₹ 24/kg and ₹ 30/kg and sells the mixture at a profit of 20% at the rate of ₹ 30/ kg. How many kgs of the second variety will be in the mixture, if 2 kgs of the third variety is there in the mixture?

एक दुकानदार ₹ 20 प्रति किग्रा., ₹ 24 प्रति किग्रा. तथा ₹ 30 प्रति किग्रा. के चावल को मिला देता है तथा उसे 20% के मुनाफे पर ₹ 30 प्रति किग्रा. की दर से बेच देता है। यदि मिले हुए चावल में तीसरे प्रकार का 2 किग्रा. चावल हो, तो मिश्रण में दूसरे प्रकार का कितना चावल है?

- (1) 1 kg/किग्रा. (2) 5 kg/किग्रा.
(3) 3 kg/किग्रा. (4) 6 kg/किग्रा.

61. In a 1 kilometre race, A gives B a start of 100 m or 15 seconds. How long does A take to complete the race?

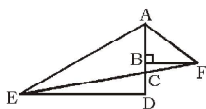
एक किमी. के किसी रेस में, A, B को 100 मी. या 15 सेकण्ड की प्रारंभिक छूट देता है। A को रेस खत्म करने में कितना समय लगेगा?

- (1) 150 sec/सेकण्ड (2) 165 sec/सेकण्ड
(3) 135 sec/सेकण्ड (4) 180 sec/सेकण्ड

62. In the diagram given below, $CD = BF = 10$ units

and $\angle CED = \angle BAF = 30^\circ$. What would be the area of triangle AED?

दिए गए निम्न आकृति में $CD = BF = 10$ इकाई तथा $\angle CED = \angle BAF = 30^\circ$ है। त्रिभुज AED का क्षेत्रफल क्या होगा?



(1) $100 \times (\sqrt{2} + 3)$ units / इकाई

(2) $\frac{100}{(\sqrt{2} + 3)}$ units / इकाई

(3) $\frac{50}{(\sqrt{3} + 4)}$ units / इकाई

(4) $50 \times (\sqrt{3} + 4)$ units / इकाई

63. Two boys begin together to write out a booklet containing 535 lines. The first boy starts with the first line, writing at the rate of 100 lines an hour and the second starts writing with the last line, then writes line 534 and then proceeds so on, backward proceeding at the rate of 50 lines an hour. At what line will they meet?

दो बच्चे साथ में 535 पंक्तियों की एक किताब लिखना प्रारंभ करते हैं। पहला बच्चा, पहली पंक्ति से 100 पंक्ति प्रति घण्टे की दर से लिखना प्रारंभ करता है तथा दूसरा बच्चा आखिरी पंक्ति से लिखना प्रारंभ करता है, फिर पंक्ति 534 लिखता है तथा इसी प्रकार से 50 पंक्ति प्रति घण्टे की दर से पीछे की ओर बढ़ता है। किस पंक्ति पर वे दोनों मिलेंगे?

(1) 356 (2) 277

(3) 357 (4) 267

64. If $(x + 2)^2 = 9$ and $(y + 3)^2 = 25$, then the maximum

value of $\frac{x}{y}$ is:

यदि $(x + 2)^2 = 9$ तथा $(y + 3)^2 = 25$, तो $\frac{x}{y}$ का अधिकतम मान क्या है?

(1) $\frac{1}{2}$ (2) $\frac{5}{2}$

(3) $\frac{5}{8}$ (4) $\frac{1}{8}$

65. There were P people in a room, when a meeting started. Q people left the room during the first hour and R people entered the room during the next hour. The number of people present currently in the room is what percent of the number of people present during the first hour after some people left. जब बैठक प्रारंभ हुआ, तो कमरे में P लोग थे। Q लोग प्रथम घण्टे में कमरे को छोड़कर चले गए तथा R लोग अगले घण्टे में कमरे में दाखिल हुए। वर्तमान में मौजूद व्यक्तियों की संख्या कमरे में प्रथम

घण्टे में कुछ लोगों के जाने के पश्चात् मौजूद व्यक्तियों की संख्या का कितना प्रतिशत है?

(1) $\frac{(P + Q)}{(P - Q + R)}$ (2) $100 \times \frac{(P - Q + R)}{(P - Q)}$

(3) $100 \times \frac{(P - Q)}{(P - Q + R)}$ (4) $100 \times \frac{(P + Q)}{(P - Q)}$

66. Ram completes 60% of a work in 15 days and then takes help of Rahim and Russel. Rahim is 50% as efficient as Ram and Russel is 50% as efficient as Rahim. In how many more days will they complete the work?

किसी कार्य को 60% राम 15 दिनों में पूरा करता है एवं फिर रहीम तथा रसेल की मदद लेता है। रहीम, राम से 50% कुशल है तथा रसेल, रहीम से 50% कुशल है। कितने और दिनों में वे कार्य को समाप्त कर लेंगे?

(1) $\frac{40}{7}$ (2) $\frac{48}{7}$

(3) $\frac{46}{9}$ (4) None/कोई नहीं

67. 'a' and 'b' are the lengths of the base and height of a right angled triangle with hypotenuse as 'h'. If the values of 'a' and 'b' are positive integers, then which of the following cannot be a value of the square of its hypotenuse?

a तथा b किसी समकोण त्रिभुज के आधार तथा ऊँचाई की लंबाई है। यदि a तथा b का मान एक धनात्मक पूर्णांक है, तो निम्न में से कौन इनके कर्ण के वर्ग का मान नहीं हो सकता?

(1) 13 (2) 23

(3) 37 (4) 41

68. The marks scored by a student in three subjects are in the ratio of 4 : 5 : 6. The candidate scored 60% of the aggregate of maximum marks in three subjects which is equal to marks scored by the candidate in the three subjects. In how many subjects did he score more than or equal to 60%?

किसी विद्यार्थी द्वारा तीन विषयों के प्राप्तांक का अनुपात 4 : 5 : 6 है। विद्यार्थी ने तीनों विषयों के अधिकतम अंक का 60% अंक प्राप्त किया जो कि तीनों विषयों में प्राप्त किए गए अंकों के योग के समान है। कितने विषयों में उसने 60% से अधिक या उसके बराबर अंक प्राप्त किए?

(1) 1 (2) 2

(3) 3 (4) 0

69. If the length of the sides of a triangle is 72 cm, 75 cm and 21 cm, then what will be the length of its in-radius?

यदि किसी त्रिभुज के भुजाओं की लंबाई 72 सेमी., 75 सेमी तथा 21 सेमी. हो, तो इसके अंतः त्रिज्या की लंबाई क्या होगी?

(1) 37.5 cm/सेमी. (2) 24 cm/सेमी.

(3) 9 cm/सेमी. (4) 15 cm/सेमी.

70. Algebra test was taken in three math classes: X, Y, and Z.

The average score in class X was 83.
The average score in class Y was 76.
The average score in class Z was 85.
The average score of all students in classes X and Y together was 79.
The average score of all students in classes Y and Z together was 81.
What was the average score for all the three classes?

गणित की तीन कक्षा X, Y तथा Z में बीजगणित का परीक्षा लिया गया।

कक्षा X का औसत अंक 83 था।

कक्षा Y का औसत अंक 76 था।

कक्षा Z का औसत अंक 85 था।

कक्षा X तथा Y के सभी विद्यार्थी का औसत अंक 79 था।

कक्षा Y तथा Z के सभी विद्यार्थी का औसत अंक 81 था।

तीनों कक्षाओं का औसत अंक क्या था?

- (1) 81 (2) 81.5
(3) 82 (4) 84.5

71. Yana and Gupta leave from points x and y towards y and x respectively simultaneously and travel in the same route. After meeting each other on the way, Yana takes 4 hours to reach her destination, while Gupta takes 9 hours to reach his destination. If the speed of Yana is 48 km/hr, then what is the speed of Gupta?

याना तथा गुप्ता बिन्दु x तथा y से क्रमशः y तथा x के लिए एक साथ निकलते हैं तथा एक ही मार्ग में यात्रा करते हैं। रास्ते में एक-दूसरे से मिलने के पश्चात् याना अपने गंतव्य स्थान पर पहुँचने में 4 घण्टे लेती है, जबकि गुप्ता अपने गंतव्य स्थान पर पहुँचने में 9 घण्टे लेता है। यदि याना की चाल 48 किमी/घण्टा है, तो गुप्ता की चाल क्या है?

- (1) 72 km/hr/किमी./घण्टा (2) 30 km/hr/किमी./घण्टा
(3) 20 mile/hr/मील/घण्टा (4) 32 mile/hr/32 मील/घण्टा

72. If both 11^2 and 3^3 are factors of the number $a \times 4^3 \times 6^2 \times 13^{11}$, then what is the smallest possible value of a?

यदि 11^2 तथा 3^3 दोनों, संख्या $a \times 4^3 \times 6^2 \times 13^{11}$ का गुणनखण्ड है, तो a का न्यूनतम संभव मान क्या है?

- (1) 121 (2) 3267
(3) 363 (4) 33

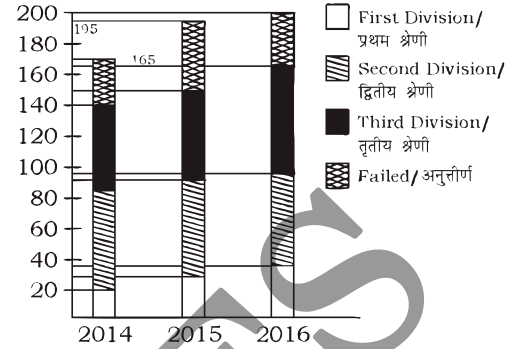
73. If ABC is a right angle triangle with $\angle A = 90^\circ$ and $2s = a + b + c$, where $a > b > c$, then which one of the following is correct?

यदि ABC एक समकोण त्रिभुज है जिसमें $\angle A = 90^\circ$ है तथा $2s = a + b + c$ है, जहाँ $a > b > c$ है, तो निम्न में से कौन सत्य है?

- (1) $(s - b)(s - c) > s(s - a)$
(2) $(s - a)(s - c) > s(s - b)$
(3) $(s - a)(s - b) < s(s - c)$
(4) $4s(s - a)(s - b)(s - c) = bc$

Directions (74-75) : The following bar graph depicts the result of B.Sc. students of a college for three years. Read the graph and answer the questions based on this graph.

निर्देश (74-75) : निम्नलिखित बार ग्राफ एक कॉलेज के छात्रों के 3 वर्षों के बी.एस.सी. के परिणाम को दर्शाता है। ग्राफ को पढ़ें तथा इस ग्राफ के आधार पर प्रश्नों के उत्तर दें।



74. The aggregate pass percentage during the three years was

तीन वर्षों के दौरान कुल पास प्रतिशत था-

- (1) $82\frac{44}{113}\%$ (2) $82\frac{55}{113}\%$
(3) $80\frac{60}{113}\%$ (4) $77\frac{29}{113}\%$

75. The percentage of students passed in 1st division in 2014 was-

2014 में प्रथम श्रेणी में पास करने वाले छात्रों का प्रतिशत था-

- (1) 20% (2) 34%
(3) $14\frac{2}{7}\%$ (4) $11\frac{13}{17}\%$

4. ENGLISH

Direction : In Question nos. 76 to 78, one part of the sentence may have an error. Find out which part of the sentence has an error and blacken the oval corresponding to it. If the sentence is free from error, blacken the "No error" option.

76. It is important to (1)/ take pride of (2)/ whatever we do on life. (3)/ No error (4)

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

77. The (1)/ desert (2)/ was delicious (3)/. No error (4)

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

78. They used strong (1)/ ropes to went (2)/ down the cliff. (3)/ No error (4)

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

Directions : In Question nos. 79 to 81, sentences given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four and indicate it by blackening the appropriate oval [] in the Answer Sheet.

79. The employees work hard not because of the _____, but because of their inner urge.

- (1) Energy (2) Drive
(3) Incentive (4) Desire

80. It is _____ for us to abide by the laws of the land.

- (1) Obligatory (2) Optional
(3) Expected (4) Meant

81. The judge used his _____ in settling the matter of his court.

- (1) Brains (2) Know
(3) Bias (4) Discretion

Directions : In question nos. 82 to 83, out of the four alternatives, choose the one which best expresses the meaning of the given word.

82. OCCULT

- (1) Latent (2) Fathomable
(3) Intelligible (4) Transparent

83. QUELL

- (1) Exacerbate (2) Agitate
(3) Subdue (4) Foment

Directions : In question nos. 84 to 85, choose the word opposite in meaning to the given word.

84. FEEBLE

- (1) Unbreakable (2) Strong
(3) Intense (4) Preserved

85. FRAIL

- (1) Massive (2) Rich
(3) Civilised (4) Robust

Directions : In question nos. 86, four words are given in each question, out of which only one word is spelt correctly/wrongly out of them. Find the word spelt correct/wrong and mark your answer in the Answer Sheet.

86. (1) Playrite (2) Playright
(3) Playwright (4) Playwrite

Direction : In Question nos. 87 to 89, four alternative are given for the Idiom/Phrase in bold in below sentences. Choose the alternative which best expresses the meaning of the Idiom/Phrase and mark it in the Answer Sheet.

87. During the exam, the students use to read the complete book **out and out**.

- (1) no more (2) in favour of
(3) deadly against (4) thoroughly

88. The culprits could be easily arrested because the police were **tipped off** in a advance.

- (1) Toppled over (2) Given advance information
(3) Bribed (4) Threatened

89. In the organised society of today no individual or nation can **plough a lonely furrow**.

- (1) do without the help of others
(2) survive in isolation
(3) remain unaffected
(4) remain non-aligned

Direction : In Question nos. 90 to 92, a sentence/ a part of the sentence is italicised in underlined. Below are given alternatives to the italicised part at (1), (2), (3) which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is (4). Mark your answer in the Answer Sheet.

90. Her speech was optimistic, but at the end of it, she stroke a note of caution.

- (1) striked a note of caution
(2) stroke a note of caution
(3) struck a note of caution
(4) No improvement

91. In our country women have opportunities to rise to top in every walk of life.

- (1) have had opportunities
(2) have been having opportunities
(3) have opportunities to rise
(4) No improvement

92. India's outlook on the world is composing of these various elements.

- (1) is composed of (2) is composed by
(3) is composed with (4) No improvement

Direction : In Question nos. 93 to 95, in the following question, out of the four alternatives, choose the one which can be substituted for the given sentence.

93. In a state of tension or anxiety or suspense

- (1) On tenterhooks (2) Depressed
(3) Diffused (4) Off balance

94. Habitually silent or talking little

- (1) Unequivocal (2) Synoptic
(3) Taciturn (4) Servile

95. Expressing oneself clearly or effectively

- (1) Professional (2) Dilettante
(3) Articulate (4) Amateur

Direction (Q. No- 96 - 100) : In these question you have two brief passages with six questions following the passage. Read the passage carefully and choose the best answer to each question out of the four alternatives.

Passage - 1

Just as some men like to play football or cricket, similarly some men like to climb mountains. This is often very difficult to do, for mountains are not just big hills. Paths are usually very steep. Some mountain sides are straight up and down, so it may take many hours to climb as little as one hundred feet. There is always the danger that you may fall off and be killed or injured. Men talk about conquering a mountain. It is a wonderful feeling to reach the top of a mountain after climbing for hours and may be, even days. You look down and see the whole country below you. You feel god-like. Two Italian prisoners of war escaped from a prison camp in Kenya during the war. They did not try to get back to their own country, for they knew that was impossible. Instead, they climbed to the top of Mount Kenya, and then they came down again and gave themselves up. They had wanted to get that feeling of freedom that one has, after climbing a difficult mountain.

96. Some men like to climb mountains because

- (1) they do not like to play football or cricket
(2) they want to have a wonderful feeling
(3) they know the trick of climbing
(4) they like to face danger

97. To climb mountains is often difficult because

- (1) mountains are big hills
(2) it consumes more time
(3) prisoners often escape from camps and settle there
(4) paths are steep and uneven

98. What does 'It' refers to in "It is a wonderful feeling" used in the passage?

- (1) the steep path (2) the mountain
(3) the prisoner (4) mountaineering

99. Two Italian prisoners escaped from the camp and climbed on the top of Mount Kenya

- (1) to get the feeling of freedom
(2) to escape to Italy
(3) to gain face as mountaineers
(4) none of the above

100. Mountaineering is not a very popular sport like football or cricket because

- (1) it may take many hours or days
(2) there are no spectators in this sport
(3) people do not want to enjoy a god-like feeling
(4) none of the above

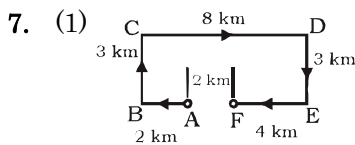
EXPLANATION - 001

1. (1) Second is the feminine gender of the first.
2. (2) There are waves in the oceans and sand dunes in the desert.

3. (3) $38 \Rightarrow 3 \times \frac{8}{2} = 12 \Rightarrow 12^2 = 144$

$54 \Rightarrow 5 \times \frac{4}{2} = 10 \Rightarrow 10^2 = 100$

4. (1) All except Vapour are different forms of Precipitation.
5. (4) Except Shout, others are sound related to animals.
6. (3) Except LAZINESS, the other words contain all vowels.



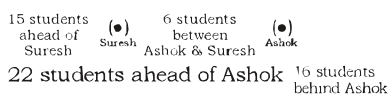
\therefore Required distance = $8 - (4 + 2) = 2$ kms

8. (3) Lady will bake in an oven and oven is called grinder.
9. (4) From the given data we can find that (A, E) are the couple and has two child F and C.

Also (B, D) are the couple with G as their child.

As it is given that there are three children in the family, in which F is a girl, so C will definitely be a boy to satisfy one boy and one girl condition. So we can say that C is A's son.

10. (2) $15 + \text{Suresh} + 6 + \text{Ashok} + 16 = 39$



The rank of Suresh from the start is 23rd.

11. (1) The first, second and third letters move three steps forward, four steps backward and two steps forward respectively. So, the required answer is NHR.
12. (2) The series consists of two groups (M, O, R, V) and (N, L, I, ?). The letters in the first group move 2, 3, 4, ... steps forward. The letters in the second group move 2, 3, 4, ... steps backward. So E is the required answer.

13. (3) $2 \times 0.25 + 0.5 = 1$
 $1 \times 0.5 + 1.5 = 2$
 $2 \times 0.75 + 2.5 = 4$
 $4 \times 1 + 3.5 = 7.5$
 $7.5 \times 1.25 + 4.5 = 14.75$

14. (4) $2 \frac{23}{11} 3 \frac{23}{11} 5 \frac{23}{11} 4 \frac{23}{11} 1$

15. (2)

16. (4) There is no C in DISSEMINATION.

17. (4) The sequence in the differences of the numbers is 7, 5, 3, 1, -1. Substituting 35 instead of 36 will satisfy the sequence.

18. (4) $12^2 = 144$

$25^2 = 625$

$19^2 = 361$

$17^2 = 289$

19. (2) $2^3 + 3^2 + 4^1 = 21$

$1^3 + 3^2 + 5 = 15$

$3^3 + 4^2 + 2 = 45$

20. (1) $(3 + 2) \times 4 = 20$

$(5 + 2) \times 6 = 42$

$(1 + 2) \times 2 = 6$

$(7 + 2) \times 8 = 72$

21. (4)

Words	No. of letters (A)	(A) ²	Reverse of (A) ²
Behind	6	36	63
Every	5	25	52
Successful	10	100	001
Man	3	09	90
There	5	25	52
is	2	04	40
a	1	01	10
Woman	5	25	52

\therefore Behind every successful man there is a woman = 63520019052401052

Words	No. of letters (A)	(A) ²	Reverse of (A) ²
Empty	5	25	52
Vessels	7	49	94
Makes	5	25	52
Much	4	16	61
Noise	5	25	52

\therefore Empty vessels makes much noise

= 5294526152

22. (4)

$12 \times 7 = 84 \Rightarrow 804$ Reverse 408

$9 \times 8 = 72 \Rightarrow 702$ Reverse 207

$13 \times 7 = 91 \Rightarrow 901$ Reverse 109

23. (3)

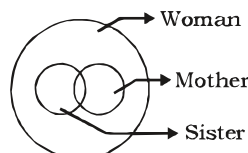
24. (2) $1, 1 \times 2, 1 \times 3 \Rightarrow 1 2 3$

$2, 2 \times 2, 2 \times 3 \Rightarrow 2 4 6$

$3, 3 \times 2, 3 \times 3 \Rightarrow 3 6 9$

So, 9 box is the required answer.

25. (3)



Some sister may be mother and vice-versa. Also, some mothers

may not be sisters and vice-versa. But all sisters and mothers belong to woman group.

27. (4) Antigen is a foreign molecule, which invade the body of an organism, and induce immune response to stimulate antibody.

28. (4) The Government of India (GoI) has constituted a committee of officers to enable 100% conversion of Government - Citizen Transactions to the digital platform. The committee, under the leadership of NITI Aayog CEO Amitabh Kant, will identify and operationalize various digital payment systems appropriate to different sectors of the economy and coordinate efforts to make them accessible and user-friendly. The committee will also identify and access infrastructural and bottlenecks affecting the access and utility of digital payment options.

29. (1) Fuel value can be expressed in terms of calorific value of fuel. The calorific value of a fuel is the amount of heat produced by burning 1 kg of fuel. Hydrogen has the highest calorific value of (141,790 KJ/kg) thus have highest fuel value. Calorific value of charcoal, natural gas and gasoline are (29,600; 43,000; 47,300 kJ/kg) respectively. Natural gas mainly consists of Methane.

31. (1) Magnetic quantum number represents the number of orbital's present in the subshell magnetic quantum number about the orientation of the orbital.

33. (2) The Palampur Assembly Constituency has become the India's first e-assembly constituency at Kangra district in Himachal Pradesh. Now, the resident of constituency would not only know about the development works going on by one click on computer but they would also send their requirement about funds for different schemes in their respective areas online. This system would be introduced in other 67 constituencies of the state in next 6 months.

34. (2) The 2016 International Day for the Elimination of Violence

against Women is observed every year on November 25 to raise public awareness of violence against women. The 2016 theme is "Orange the World - raise funds to end violence against women" in which orange colour designated the UNiTE campaign to symbolize a brighter future without violence.

35. (2) The book "Banaras City of Light" has been authored by Diana L. Eck. It is about the spiritual and historical aspects of the city.

36. (3) According to evolution of living organisms Salamander-Python-Kangaroo, because the evolution started from amphibians 350 million years ago, reptiles appeared 300 million years ago and 200 million years ago first small mammals appeared.

37. (2) Airtel Payments Bank Limited (or Airtel Bank), a subsidiary of Bharti Airtel Limited has launched India's first payment bank with 7.25% interest on savings accounts as a pilot basis of its banking services in Rajasthan. Airtel Bank's services can be accessed by Airtel customers on their mobile phones through the Airtel Money app, through USSD by dialing *400#; or via a simple IVR by dialing 400. Both the USSD & IVR options are available in Hindi and English language and work on simple feature phones as well. The non-Airtel customers can access Airtel Bank's services by dialing 8800688006.

38. (4) By-products of thermal power plant operation need to be considered in both design and operation. Waste heat due to the finite efficiency of the power cycle must be released to the atmosphere, using a cooling tower, or river or lake water as a cooling medium. The gas from combustion of the fossil fuels is discharged to the air; this contains carbon dioxide and water vapour, as well as other substances such as nitrogen, nitrogen oxides, sulphur oxides, and (in the case of coal-fired plants) fly ash, mercury and traces of other metals.

39. (3) Sun is the star nearest to the earth. It is 150 million kilometers away from earth. Sun has temperature of over 15 million °C.

40. (3) A cryogenic rocket engine is a rocket engine that uses a cryogenic fuel or oxidiser, that is, its fuel or oxidizers (or both) are gases liquefied and stored at very low temperatures. Notably, these engines were one of the main factors of the ultimate success in reaching the Moon by the Saturn V rocket. Various cryogenic fuel-oxidizer combinations have been tried, but the combination of liquid hydrogen fuel and the liquid oxygen oxidizer is one of the most widely used.

41. (4) One of the greatest attractions in Africa and one of the most spectacular waterfalls in the world, Victoria Falls is located on the Zambezi River, the fourth largest river in Africa, which is also defining the border between Zambia and Zimbabwe.

42. (3) A fluorescent lamp or fluorescent tube is a gas-discharge lamp that uses electricity to excite mercury vapour. The excited mercury atoms produce shortwave ultraviolet light that then causes a phosphor to fluoresce, producing visible light. 6500 K is usually printed on a used fluorescent tubelight.

43. (3) Adrenaline is the hormone that prepares the body to deal with anger, fear and danger. Estrogen hormone is released from ovary of female. Insulin controls the level of glucagon in blood. Pheromones attract partners through sense of smell.

44. (4) The tribal population of Andaman and Nicobar belong to Negroid race. A small population of Shompen and Nicobars are Mongoloid descent.

46. (3) The term of the LS can be extended by not more than one year at a time during the proclamation of national emergency under Article 352.

49. (1) The Bollywood actor Manoj Bajpayee has won the "Best Performance by an Actor" at the 10th edition of Asia Pacific Screen Awards (APSA) for his

performance as Professor Siras in "Aligarh" directed by Hansal Mehta. The 10th APSA is recognizing and promoting cinematic excellence and cultural diversity of the world's fastest growing film region.

51. (1) $x = \sqrt{y + 373437 \times 37439}$

$$x = \sqrt{y + (37438 - 1)(37438 + 1)}$$

$$x = \sqrt{y + 37438^2 - 1^2}$$

For $y = 1$, the value of x is possible to find.

$$\text{As, } x = \sqrt{1^2 + 37438^2 - 1^2}$$

$$= \sqrt{37438^2} = 37438$$

52. (2) $2^x \times 2^y = 8$

$$\Rightarrow 2^{x+y} = 8$$

$$\Rightarrow x + y = 3$$

$$9^x \times 3^y = 81$$

$$\Rightarrow 3^{2x+y} = 81$$

$$\Rightarrow 2x + y = 4$$

$$\text{So } (x, y) = (1, 2)$$

$$\text{So, } x^2 + y^2 - 2xy + 1 = 1^2 + 2^2 - 2$$

$$\times 1 \times 2 + 1$$

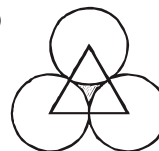
$$= 6 - 4 = 2$$

53. (3)

3 more than multiple of 5	53	58	63	68	73	78	83	88
2 more than multiple of 6	56	62	68	74	80	86		

\Rightarrow Required no. of questions = 68

54. (3)



Draw an equilateral triangle after connecting the centers

$$\text{Area} = \frac{\sqrt{3}}{4} a^2 \text{ where } a \text{ is side of}$$

$$\text{triangle} = \frac{\sqrt{3}}{4} \times 4^2$$

$$[a = 2r = 4]$$

$$= 4\sqrt{3} \text{ cm}^2$$

As, the 3 sectors of a triangle will form a semi-circle and its area

$$= \frac{1}{2} \times \pi \times r^2 = \frac{1}{2} \times \pi \times 2^2 = 2\pi$$

\therefore Required area of shaded region

$$= (4\sqrt{3} - 2\pi) \text{ cm}^2$$

55. (2) $(x, y) = \{(1, 18) (6, 15) (11, 12) (16, 3) (21, 6) (26, 3)\}$

\therefore The number of possible value

of $x = 6$

56. (1) ₹ 100 invested in CI becomes 200 in 5 yr
Amount gets doubled again in 5 yr

It means new amount = ₹ 400 in another 5 yr

So, we can say that in another 5 yr 200 interest will be earned.

57. (3) By sine rule of Δ

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} = K$$

$$\therefore a = K \sin A, b = K \sin B, c = K \sin C$$

$$\Rightarrow \frac{\cos A}{K \sin A} = \frac{\cos B}{K \sin B} = \frac{\cos C}{K \sin C}$$

$$\Rightarrow \cot A = \cot B = \cot C$$

$$\therefore A = B = C$$

So, It is equilateral Δ

58. (3) 20% of the men are above the age of 50 years. 20% of these men play football.

It means, 20% of 20% of 4% of the total men are football players above the age of 50 years.

20% of the men are football players.

Therefore, 16% of the men are football players below the age of 50 years.

Therefore, the % of men who are football players and below the age of 50

$$= \frac{16}{20} \times 100 = 80\%$$

59. (3) Required percentage

$$= \left(1 - \frac{115}{125} \times 100\right)$$

$$= \left(1 - \frac{23}{25} \times 100\right)$$

$$= \frac{2}{25} \times 100 = 8\%$$

60. (2) SP = 30 profit = 20% then CP of mixture

$$= \frac{30}{1.2} = 25$$

By Alligation rule,

$$\frac{QA}{QC} = \frac{30 - 25}{25 - 20} = \frac{5}{5} = 1$$

Also,

$$\frac{QB}{QC} = \frac{30 - 25}{25 - 24} = \frac{5}{1}$$

$$\Rightarrow QA : QB : QC = 1 : 5 : (1 + 1) = 1 : 5 : 2$$

\therefore Required weight of the rice = 5 kg

61. (3) In a 1000 metre race A gives B, a start of 100 m or 15 seconds.
 \therefore B takes 15 seconds to run 100 m.

\therefore B will take 150 seconds to run the stretch of 1000 metres.

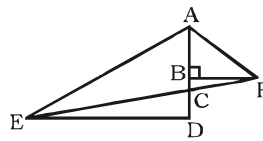
As, 1000 m = 10 times 100 m

\therefore The time taken will also be 10 times 15 seconds = 150 seconds.

As, A gives B a start of 15 seconds, which means A obviously takes 15 seconds less than B to complete the race.

Hence, A will take 135 seconds to run the 1000 m.

62. (4)



Given $CD = BF = 10$ unit

$$\angle CED = \angle BAF = 30^\circ$$

In ΔCDE ,

$$\tan 30^\circ = \frac{CD}{ED}$$

$$\Rightarrow \frac{1}{\sqrt{3}} = \frac{CD}{ED}$$

$$\Rightarrow ED = \sqrt{3} CD = 10\sqrt{3}$$

In ΔABF

$$\tan 30^\circ = \frac{BF}{AB}$$

$$\Rightarrow \frac{1}{\sqrt{3}} = \frac{BF}{AF}$$

$$\Rightarrow AB = \sqrt{3} BF = 10\sqrt{3}$$

Also, $\angle BFC = \angle CED = 30^\circ$

So, In ΔBFC

$$\tan 30^\circ = \frac{BC}{BF}$$

$$\Rightarrow \frac{1}{\sqrt{3}} = \frac{BC}{BF} \Rightarrow BC = \frac{10}{\sqrt{3}}$$

$$AD = AB + BC + CD$$

$$= 10\sqrt{3} + \frac{10}{\sqrt{3}} + 10$$

$$= 10 \left(\sqrt{3} + \frac{1}{\sqrt{3}} + 1 \right)$$

$$= 10 \left(\frac{3 + 1 + \sqrt{3}}{\sqrt{3}} \right)$$

$$\therefore \text{Area of } \Delta AFD = \frac{1}{2} \times AD \times ED$$

$$= \frac{1}{2} \times \left(10 \frac{4 + \sqrt{3}}{\sqrt{3}} \right) \times 10\sqrt{3}$$

$$= 50(4 + \sqrt{3})$$

63. (3) Writing ratio = 100 : 50 = 2 : 1

As equal quantities are taken, in a given time, first boy will be writing the line number

$$= \frac{2}{3} \times 535 = 356 \frac{2}{3} \text{ or the 357th}$$

line

Hence, both of them shall meet on 357th line.

64. (3) $(x + 2)^2 = 9$

$$\Rightarrow x + 2 = \pm 3$$

$$\therefore x = 1 \text{ or } -5$$

$$\text{and } (y + 3)^2 = 25$$

$$\Rightarrow y + 3 = \pm 5$$

$$\therefore y = 2 \text{ or } -8$$

Therefore, maximum value of

$$\frac{x}{y} = \frac{-5}{-8} = \frac{5}{8}$$

65. (2) The meeting started with P people. Q left the room during the first hour.

So, $(P - Q)$ people have been in the room during first hour since the meeting started.

Another R joined the group in the next hour.

So, the number of people in the room currently = $P - Q + R$.

Required expression

$$= \frac{P - Q + R}{P - Q} \times 100$$

66. (1) Ram completes 60% of the task in 15 days.

He completes 4% of the task in a day.

Rahim is 50% as efficient as Ram is.

Therefore, Rahim will complete 2% of the task in a day.

Russel is 50% as efficient as Rahim.

\therefore Russel will complete 1% of the task in a day.

Together, Ram, Rahim and Russel will complete $(4 + 2 + 1) = 7\%$ of the work in a day.

They have another 40% of the task to be completed.

Therefore, they will take $\frac{40}{7}$

more days to complete the task.

67. (2) The value of the square of the hypotenuse

$$= h^2 = a^2 + b^2.$$

Here 23 cannot be expressed as the sum two numbers.

Rest $(13 = 2^2 + 3^2)$, $(37 = 1^2 + 6^2)$ and $(41 = 4^2 + 5^2)$ can be written as the sum of the squares of positive integer.

∴ Choice 2 is the answer.

68. (2) Let the maximum marks in each of the three subjects be 100.
∴ Aggregate score of the candidate = 60% of $3 \times 100 = 60\%$ of 300 marks = 180 marks.

Let the marks scored in the three subjects be $4x$, $5x$ and $6x$.

$$\text{Then, } 4x + 5x + 6x = 180$$

$$15x = 180 \text{ or } x = 12.$$

∴ Marks scored by the candidate in the three subjects are 4×12 , 5×12 and $6 \times 12 = 48$, 60 and 72.

Hence, the candidate has scored more than or equal to 60% in two subjects.

69. (3) For a right angled triangle, The length of in-radius

$$= \frac{(\text{Product of perpendicular sides})}{(\text{Perimeter of triangle})}$$

$$= \frac{(72 \times 21)}{(72 + 21 + 75)} = \frac{1512}{168} = 9 \text{ cm}$$

70. (2) $\begin{matrix} x & & y & & z \\ 83 & & 76 & & 85 \\ & \searrow & / & \searrow & / \\ & 79 & & 81 & \\ & / & \searrow & / & \searrow \\ 3 & & 4 & & 5 \end{matrix}$

$$\Rightarrow x : y : z = 3 : 4 : 5$$

Average score for all the three classes x , y and $z =$

$$\frac{3 \times 83 + 4 \times 76 + 5 \times 85}{3 + 4 + 5}$$

$$= \frac{249 + 304 + 425}{12} = \frac{978}{12} = 81.5$$

71. (3) Let the time taken by them from the moment they started be x hrs and y hrs respectively.

So, Yana would take $(x + 4)$ hrs as Gupta would take $(x + 9)$ hrs
By time Yana and Gupta meet, Yana would have traveled $48x$ kms in 9 hr.

$$\therefore \text{Gupta's speed} = \frac{48x}{9}$$

Yana's speed : Gupta's speed

$$= 1 : \frac{x + 4}{x + 9}$$

$$\Rightarrow 48 : \frac{48x}{9} :: 1 : \frac{x + 4}{x + 9}$$

$$\Rightarrow \frac{x}{9} = \frac{x + 4}{x + 9}$$

$$\Rightarrow x^2 + 9x = 9x + 36$$

$$\therefore x = 6 \text{ hrs}$$

∴ Speed of Gupta

$$= \frac{48x}{9} = \frac{48 \times 6}{9} = 32 \text{ km/hr}$$

$$= 20 \text{ mile/hr}$$

72. (3) 11^2 is a factor of the given number.

In the given expression, $a \times 4^3 \times 6^2 \times 13^{11}$ none of the other factors, viz., 4, 6 or 13 is either a power or multiple of 11.

Hence, if $a \times 4^3 \times 6^2 \times 13^{11}$ is divisible by 11^2 ,

'a' should necessarily include 11^2 .

The question states that 3^3 is a factor of the given number. 6^2 is a part of the number.

6^2 can be expressed as $3^2 \times 2^2$.

i.e., $a \times 4^3 \times 6^2 \times 13^{11}$ has 3^2 in it.

It needs a 3^3 in it for the number to be divisible by 3^3 .

Therefore, a will have to provide one more 3 to $a \times 4^3 \times 6^2 \times 13^{11}$.

∴ 'a' should be at least $11^2 \times 3 = 363$, if the given number has to have 11^2 and 3^3 as its factors

73. (3) Let $a = 5$, $b = 4$ & $c = 3$

∴ It is a right angle triangle and $(3, 4, 5)$ is a Pythagorean triplet.

$$s = \frac{(a + b + c)}{2} = \frac{12}{2} = 6$$

Substitute these values and check which condition satisfies.

Let us take choice(3)

$$\text{L.H.S } (s - a)(s - b) = (6 - 5)(6 - 4) = 2.$$

$$\text{R.H.S } s(s - c) = 6(6 - 3) = 18.$$

$$\text{L.H.S} < \text{R.H.S}$$

It satisfies the given condition hence Choice(3) is the right answer.

74. (3) Total passed students,

$$= 140 + 150 + 165 = 455$$

Total students

$$= 170 + 195 + 200 = 565$$

∴ Required percentage

$$= \frac{455}{565} \times 100$$

$$= \frac{9100}{113} = 80 \frac{60}{113} \%$$

75. (4) Required percentage

$$= \frac{20}{170} \times 100$$

$$= \frac{200}{17} = 11 \frac{13}{17} \%$$

76. (2) Replace 'of' by 'in'. 'Take pride in' is the correct usage in the sentence which means 'to be proud of something'.

77. (2) Replace 'desert' by 'dessert'. The word 'desert' means 'a land having a very warm climate' and 'dessert' means 'a sweet dish usually served at the end of a meal.'

78. (2) Replace 'went' by 'go'. 'To' is followed by 'V¹'.