GENERAL INTELLIGENCE AND REASONING

1. In the following question, select the related word from the given alternatives :

निम्नलिखित प्रश्न में दिए गए विकल्पों में से संबंधित शब्द को चुनिए :

Red : Colour : : Pen : ?

लाल : रंग :: कलम : ?

(1) Stationery/लेखन सामग्री

(2) Write/लिखना

(3) Ink/स्याही

(4) Blue/नीला

2. In the following question, select the related letters from the given alternatives :

निम्नलिखित प्रश्न में दिए गए विकल्पों में से संबंधित अक्षरों को चुनिए :

TRUMP : QNVSU : : BRUCE : ?

(1) FBTSA   (2) EDUSB

(3) DBTQA   (4) FDVSC

3. In the following question, select the related number from the given alternatives :

निम्नलिखित प्रश्न में दिए गए विकल्पों में से संबंधित संख्या को चुनिए :

324 : 657 : : 461 : ?

(1) 584   (2) 691

(3) 794   (4) 831

4. In the following question, select the odd word from the given alternatives :

निम्नलिखित प्रश्न में दिए गए विकल्पों में से विषम शब्द को चुनिए :

(1) Rodents/कृंतक

(2) Reptiles/सरीसृप

(3) Amphibians/उभयचर

(4) Cow/गाय

5. In the following question, select the odd letters from the given alternatives :

निम्नलिखित प्रश्न में दिए गए विकल्पों में से विषम अक्षरों को चुनिए :

(1) JLOQT   (2) EGJLP

(3) BDGIL   (4) HJMOR

6. In the following question, select the odd number–pair from the given alternatives :

निम्नलिखित प्रश्न में दिए गए विकल्पों में से विषम संख्या-युग्म को चुनिए :

(1) 7 – 4   (2) 9 – 6

(3) 11 – 8   (4) 23 – 21

7. In the following question, select the odd number–pair from the given alternatives :

निम्नलिखित प्रश्न में दिए गए विकल्पों में से विषम संख्या-युग्म को चुनिए :

(1) 6 – 39   (2) 9 – 84

(1) 6 – 39   (2) 9 – 84

(3) 4 – 19   (4) 7 – 50

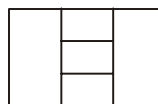8. How many triangles are there in the given figure ?

दी गई आकृति में कितने त्रिभुज हैं?

(1) 5   (2) 4

(3) 6   (4) 3
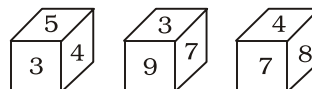
9. How many rectangles are there in the given figure ?

दी गई आकृति में कितने आयत हैं?

(1) 10   (2) 11

(3) 12   (4) 9

10. Three positions of a cube are shown below. What will come opposite to face containing '3'?
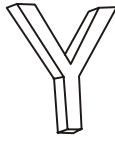
नीचे एक घन की तीन अवस्थाएँ दर्शाई गई हैं। '3' युक्त फलक के विपरीत क्या आएगा?

(1) 5   (2) 9

(3) 7   (4) 8

11. How many surfaces are there in the given figure?

दी गई आकृति में कितनी सतह हैं?

(1) 8   (2) 7

(3) 6   (4) 11

12. From the given answer figures, select the one in which the question figure is hidden/embedded.

Question Figure/प्रश्न आकृति :
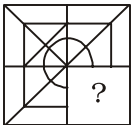

Answer Figures :

(1)   (2)

(3)   (4)

13. Which answer figure will complete the pattern in the question figure ?

कौन-सी उत्तर आकृति प्रश्न आकृति के प्रतिरूप को पूरा करेगी?

Question Figure/प्रश्न आकृति :

Answer Figures/उत्तर आकृतियाँ :

(1)   (2)

(3)   (4)

14. If a mirror is placed on the line AB, then which of the answer figures is the right mirror image of the given figure ?

यदि एक दर्पण को AB रेखा पर रखा जाए, तो दी गई उत्तर आकृतियों में से कौन-सी आकृति प्रश्न आकृति की सही दर्पण प्रतिबिम्ब होगी?
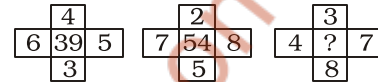
Question Figure/प्रश्न आकृति :

A ⎯⎯⎯⎯⎯ B

Answer Figures/उत्तर आकृतियाँ :

(1)   (2)

(3)   (4)

15. In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives :

निम्नलिखित प्रश्न में दिए गए विकल्पों में से प्रश्न चिह्न (?) के स्थान पर आने वाली संख्या को चुनिए :

(1) 62   (2) 68

(3) 72   (4) 78

16. Identify the diagram that best represents the relationship among the given classes.

वह आरेख चुनिए जो नीचे दिए गए वर्गों के बीच के संबंध का सही निरूपण करता है।

Pen, Pencil, Bottle

कलम, पेंसिल, बोतल

(1)   (2)

(3)   (4)

17. In the given figure, how many fans are fast but not white ?

दी गई आकृति में, कितने पंखे तीव्र हैं परंतु सफेद नहीं हैं?
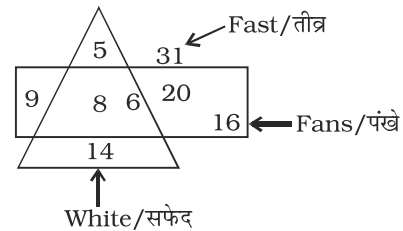
(1) 20   (2) 26

(3) 51   (4) 36

18. From the given alternatives, select the word which CANNOT be formed using the letters of the given word.

निम्नलिखित विकल्पों में से वह शब्द चुनिए जो दिए गए शब्द के अक्षरों का प्रयोग करके नहीं बनाया जा सकता।

INCARNATION

(1) RAIN   (2) CARE

(3) COIR   (4) TRAIN

19. In the following question below are given some statements followed by some Conclusions. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the Conclusions and then decide which of the given Conclusion logically follows the given statements.

नीचे दिए गए प्रश्न में कुछ कथन और उनके बाद उन कथनों पर आधारित कुछ निष्कर्ष दिए गए हैं। दिए गए कथनों को सही माने, चाहे उनमें सामान्य ज्ञात तथ्यों से भिन्नता हो। सभी निष्कर्ष पढ़ें और फिर निर्धारित करें कि दिए गए कौन से निष्कर्ष, दिए गए कथनों के आधार पर युक्तिसंगत हैं।

Statements/कथन :

I. No vehicle is white/कोई गाड़ी सफेद नहीं है।

II. Some white are blue/कुछ सफेद नीले हैं।

Conclusions/निष्कर्ष :

I. All blue are w hite/सभी नीले सफेद हैं।

II. Some vehicles are blue/कुछ गाड़ियाँ नीली हैं।

(1) Only Conclusion I follows.
केवल निष्कर्ष I सही है।

(2) Only Conclusion II follows.
केवल निष्कर्ष II सही है।

(3) Both Conclusion follow.
दोनों ही निष्कर्ष सही हैं।

(4) Neither Conclusion I nor Conclusion II follows.
न तो निष्कर्ष I न ही निष्कर्ष II सही है।

20. In the following question below are given some statements followed by some Conclusions. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the Conclusions and then decide which of the given Conclusion logically follows the given statements.

नीचे दिए गए प्रश्न में कुछ कथन और उनके बाद उन कथनों पर आधारित कुछ निष्कर्ष दिए गए हैं। दिए गए कथनों को सही माने, चाहे उनमें सामान्य ज्ञात तथ्यों से भिन्नता हो। सभी निष्कर्ष पढ़ें और फिर निर्धारित करें कि दिए गए कौन से निष्कर्ष, दिए गए कथनों के आधार पर युक्तिसंगत हैं।

Statements/कथन :

I. All pencils are watches/सभी पेंसिलें घड़ियाँ हैं।

II. Some watches are black/कुछ घड़ियाँ काली हैं।

Conclusions/निष्कर्ष :

I. Some black are pencils.
कुछ काले पेंसिलें हैं।

II. All watches are black.
कुछ घड़ियाँ काली हैं।

III. Some pencils are not watches.
कुछ पेंसिलें घड़ियाँ नहीं हैं।

(1) Only Conclusion I follows.
केवल निष्कर्ष I सही है।

(2) Only Conclusion II follows.
केवल निष्कर्ष II सही है।

(3) Only Conclusions II and III follow.
केवल निष्कर्ष II तथा III सही है।

(4) Neither Conclusion follows.
कोई निष्कर्ष सही नहीं है।

21. Pointing towards a lady, Lokesh said, "She is the daughter of my mother's only daughter." How is Lokesh related to that lady?

एक महिला की ओर संकेत करते हुए, लोकेश ने कहा, "वह मेरी माता की एकमात्र पुत्री की पुत्री है।" लोकेश उस महिला से किस प्रकार संबंधित है?

(1) Father/पिता   (2) Son/पुत्र

(3) Brother/भाई   (4) Uncle/मामा

22. J is son of P who is the brother of M. M is the daughter of A. L is the sister of J. How L is related to A?

J, P का पुत्र है जोकि M का भाई है। M, A की पुत्री है। L, J की बहन है। L, A से किस प्रकार संबंधित है?

(1) Daughter/पुत्री

(2) Wife/पत्नी

(3) Sister/बहन

(4) Grand daughter/पौत्री

23. Which number is 40% less than 80% of 300?
कौन-सी संख्या 300 के 80% से 40% कम है?

(1) 156   (2) 144

(3) 172   (4) 136

24. Two numbers are in the ratio 3 : 2. If 6 is subtracted from each number, then ratio becomes 12 : 7. What is the value of smaller number?

दो संख्याएँ 3 : 2 के अनुपात में हैं। यदि प्रत्येक संख्या में से 6 घटाया जाए, तो अनुपात 12 : 7 हो जाता है। छोटी संख्या का मान क्या है?

(1) 25   (2) 30

(3) 20   (4) 18

25. In the given question, there are four figures given out of which three are similar in some manner and one is not like the others. Select the figure which is odd one out.

दिए गए प्रश्न में, चार आकृतियाँ दी गई हैं जिसमें से तीन किसी एक गुण के आधार पर समान हैं तथा एक सर्वप्रकार भिन्न है। भिन्न आकृति को चुनिए :

26. In the given question, there are four figures given out of which three are similar in some manner and one is not like the others. Select the figure which is odd one out.

दिए गए प्रश्न में, चार आकृतियाँ दी गई हैं जिसमें से तीन किसी एक गुण के आधार पर समान हैं तथा एक सर्वप्रकार भिन्न है। भिन्न आकृति को चुनिए :

(1)   (2)

(3)   (4)

27. In the given question, there are four figures given out of which three are similar in some manner and one is not like the others. Select the figure which is odd one out.

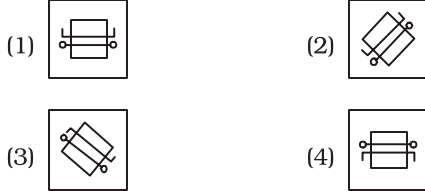दिए गए प्रश्न में, चार आकृतियाँ दी गई हैं जिसमें से तीन किसी एक गुण के आधार पर समान हैं तथा एक सर्वप्रकार भिन्न है। भिन्न आकृति को चुनिए :

(1)   (2)

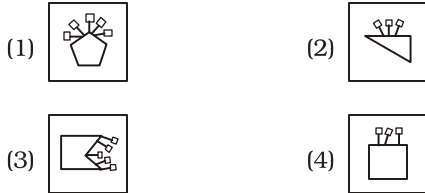(3)   (4)

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

निम्नलिखित प्रश्न में दिए गए विकल्पों में से लुप्त अंक ज्ञात कीजिए।

11, 13, 16, 20, 25, ?
(1) 43 (2) 29
(3) 31 (4) 38

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

निम्नलिखित प्रश्न में दिए गए विकल्पों में से लुप्त अंक ज्ञात कीजिए।

5, 6, 11, 17, 28, ?
(1) 43 (2) 45
(3) 38 (4) 35

30. In the following question, select the figure which can be placed at the sign of question mark (?) from the given alternatives :

निम्नलिखित प्रश्न में दिए गए विकल्पों में से प्रश्न चिह्न (?) के स्थान पर आने वाली आकृति संख्या को चुनिए :

Question Figures/प्रश्न आकृति :

Answer Figures/उत्तर आकृतियाँ :

(1)   (2)

(3)   (4)
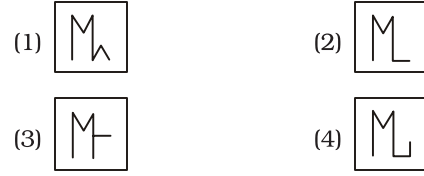
31. In the following question, select the figure which can be placed at the sign of question mark (?) from the given alternatives :

निम्नलिखित प्रश्न में दिए गए विकल्पों में से प्रश्न चिह्न (?) के स्थान पर आने वाली आकृति को चुनिए :

Question Figures/प्रश्न आकृति :

Answer Figures/उत्तर आकृतियाँ :

(1)   (2)

(3)   (4)
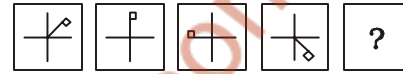
32. In the following question, select the figure which can be placed at the sign of question mark (?) from the given alternatives :

निम्नलिखित प्रश्न में दिए गए विकल्पों में से प्रश्न चिह्न (?) के स्थान पर आने वाली आकृति को चुनिए :

Question Figures/प्रश्न आकृति :

Answer Figures/उत्तर आकृतियाँ :

(1)   (2)

(3)   (4)
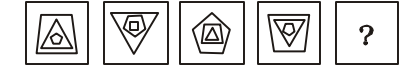
33. In a certain code language, "FREAK" is written as "IUHDN". How is "STROM" written in that code language?

एक विशिष्ट कोड भाषा में, "FREAK" को "IUHDN" लिखा जाता है। इस कोड भाषा में "STROM" को किस प्रकार लिखा जाएगा?

(1) VWURP (2) HGILN
(3) VXRIT (4) WRPVX

34. In a certain code language, "STAMP" is written as "71" and "FROM" is written as "54". How is "LOCKS" written in that code language?

एक विशिष्ट कोड भाषा में, "STAMP" को "71" तथा "FROM" को "54". लिखा जाता है। इस कोड भाषा में "LOCKS" को किस प्रकार लिखा जाएगा?

(1) 60   (2) 62

(3) 64   (4) 66

35. In a certain code language, "LUKEWORM" is written as "OTQYGMWN". How is "STALMATE" written in that code language?

एक विशिष्ट कोड भाषा में, "LUKE- WORM" को "OTQYG-MWN" लिखा जाता है। इस कोड भाषा में "STALMATE" को किस प्रकार लिखा जाएगा?

(1) GVCONCVU

(2) CRYKJYRQ

(3) CVYOJCRU

(4) GRCKNYVQ

GENERAL KNOWLEDGE AND
GENERAL AWARENESS

36. Which among the following is second requirement for production of goods and services?

निम्नलिखित में से कौन–सा वस्तुओं तथा सेवाओं के उत्पादन के लिए दूसरी आवश्यकता है?

(1) Labour/श्रम

(2) Water/पानी

(3) Knowledge/ज्ञान

(4) Fuel/ईंधन

37. General Agreement on Tariffs and Trade (GATT) has been replaced by which International Organisation?

तटकर एवं व्यापार पर सामान्य समझौते (जीएटीटी) को किस अंतर्राष्ट्रीय संगठन के द्वारा प्रतिस्थापित किया गया है?

(1) United Nations/संयुक्त राष्ट्र

(2) WTO/डब्ल्यूटीओ

(3) World Bank/विश्व बैंक

(4) IMF/आईएमएफ

38. Farmers of which state were the first to try out the modern farming methods in India?

किस राज्य के किसान भारत में आधुनिक खेती पद्धतियों की कोशिश करने वाले सबसे पहले किसान थे?

I.   Punjab/पंजाब

II.   Uttar Pradesh/उत्तर प्रदेश

III.   Tamil Nadu/तमिलनाडु

(1) Only I/केवल I

(2) Only II/केवल II

(3) Both I and II/I तथा II दोनों

(4) All I, II and III/I, II तथा III सभी

39. _____ stock is the stock of food grains procured by the government through food corporation of India (FCI).

_____ भंडार भारत के खाद्य निगम (एफसीआई) के माध्यम सरकार द्वारा अर्जित किया जाने वाला अनाज का भंडार है।

(1) Common/सामान्य   (2) Preferred/अधिमानित

(3) Buffer/बफर   (4) Income/आय

40. Which state is governed by a party which does not allow other parties to compete for power?

किस राज्य को एक पार्टी द्वारा नियंत्रित किया जाता है जो अन्य पार्टियों को सत्ता के लिए प्रतिस्पर्धा करने की अनुमति नहीं देता है?

(1) Democratic State/लोकतांत्रिक राज्य

(2) Communist State/साम्यवादी राज्य

(3) Aristocratic State/कुलीनतांत्रिक राज्य

(4) Autocratic State/एकतांत्रिक राज्य

41. What is the introductory statement in a constitution which states the reasons and guiding values of the constitution?

एक संविधान में प्रारंभिक कथन जो संविधान के कारणों तथा मार्गदर्शक मूल्यों को बताता है, क्या है?

(1) Tryst/भेंट   (2) Clause/धारा

(3) Draft/प्रारूप   (4) Preamble/प्रस्तावना

42. Which among the following word/words is written in Preamble of Indian Constitution?

निम्नलिखित शब्द/शब्दों में कौन–सा भारतीय संविधान के प्रस्तावना में हुआ है।

I.   Justice/न्याय

II.   Liberty/स्वतंत्रता

III.   Equality/समानता

(1) Only/केवल I

(2) Only/केवल II

(3) Both I and II/I तथा II दोनों

(4) All I, II and III/I, II तथा III सभी

43. Which among the following is NOT true with respect to Indian Constitution?

निम्नलिखित में से कौन–सा कथन भारतीय संविधान के संदर्भ में सत्य नहीं है?

(1) Fundam ental Rights are Justiciable

मौलिक अधिकार न्यायसंगत हैं

(2) Fundamental Duties are Justiciable

मौलिक कर्त्तव्य न्यायसंगत हैं

(3) There are three types of emergencies in India

भारत में तीन तरह के आपात हैं

(4) Article 18 tells about abolition of titles

अनुच्छेद 18 शीर्षक के उन्मूलन के बारे में बताता है

44. Usually, in ancient India, tax was fixed at $\frac{1}{6}$th of the produce which was called as

प्रायः प्राचीन भारत में उपज का $\frac{1}{6}$वाँ हिस्सा कर के रूप में निर्धारित किया जाता था, जिसे_____कहा जाता था।

(1) Hissa/हिस्सा   (2) Bhaga/भाग

(3) Khanda/खंड   (4) Shala/शाला

45. Which were the two very powerful rulers of Magadha Mahajanpada?

मगध महाजनपद के दो बहुत ही शक्तिशाली शासक कौन थे?

I.   Bimbisara/बिम्बिसार
II. Ajatashatru/अजातशत्रु
III. Vassakara/वस्सकार

(1) Only/केवल III
(2) Only II and III/केवल II तथा III
(3) Only I and II/केवल I तथा II
(4) Only/केवल II

46. Where was the Natal Congress found in the year 1884?
वर्ष 1884 में, नेटल कांग्रेस की स्थापना कहाँ हुई थी?
(1) Russia/रूस
(2) Singapore/सिंगापुर
(3) South Africa/दक्षिण अफ्रीका
(4) Britain/ब्रिटेन

47. In which year Civil Disobedience Movement was launched?
सविनय अवज्ञा आंदोलन किस वर्ष शुरू हुआ था?
(1) 1921   (2) 1925
(3) 1930   (4) 1935

48. Jainism in ancient India was supported mainly by
प्राचीन भारत में जैन धर्म मुख्य रूप से _____ द्वारा समर्थित था।
(1) किसानों   (2) व्यापारियों
(3) कुम्हारों   (4) कारीगरों
(1) farmers   (2) traders
(3) potters   (4) artisans

49. Vardhaman Mahavira was prince of Lichchavis, which was a group of _____ Sangha.
वर्धमान महावीर लिच्छवि वंश के राजकुमार थे जो कि_____ संघ का समूह था।
(1) Magadha/मगध   (2) Vajji/वज्जि
(3) Anga/अंग   (4) Gandhara/गंधार

50. Through which of the following Indian state the Tropic of Cancer does NOT pass?
निम्नलिखित में से किस भारतीय राज्य से कर्क रेखा नहीं गुजरती है?
(1) Gujrat/गुजरात
(2) Uttar Pradesh/उत्तर प्रदेश
(3) Jharkhand/झारखंड
(4) Madhya Pradesh/मध्य प्रदेश

51. Which is the longest lake in India?
भारत की सबसे लंबी झील कौन-सी है?
(1) Vembanad lake/वेम्बनाड झील
(2) Pulicat lake/पुलिकट झील
(3) Kolleru lake/कोल्लेरू झील
(4) Loktak lake/लोकटक झील

52. The part of the Himalayas lying between Satluj and Kali rivers is known as _____ Himalayas.
सतलज तथा काली नदियों के बीच स्थित हिमालय का हिस्सा_____हिमालय के रूप में जाना जाता है।
(1) Assam/असम
(2) Kumaon/कुमाऊँ
(3) Punjab/पंजाब
(4) Kashmir and Himanchal/कश्मीर तथा हिमाचल

53. What is the name of the headwaters of the Ganga that is fed by the Gangotri Glacier?
गंगोत्री ग्लेशियर द्वारा परिपूर्ण गंगा के नदीशीर्ष का क्या नाम है?
(1) Padma/पद्म
(2) Damodar/दामोदर
(3) Bhagirathi/भागीरथी
(4) Alaknanda/अलकनंदा

54. In general, which areas of India do NOT experience large contrast in temperature conditions?
सामान्य तौर पर, भारत के कौन से क्षेत्र तापमान की बड़ी विपरीत स्थितियाँ अनुभव नहीं करते हैं?
(1) The Northern Plains/उत्तरी मैदान
(2) The Peninsular Plateau/प्रायद्वीपीय पठार
(3) The Great Indian Desert/महान भारतीय रेगिस्तान
(4) The costalareas/तटीय क्षेत्र

55. Which two Indian cities will be connected by first phase of East coast Economic Corridor?
पूर्व तट आर्थिक गलियारे के प्रथम चरण से कौन से दो भारतीय शहरों को जोड़ा जाएगा?
(1) Visakha patnam-Chennai/विशाखापट्टनम्-चेन्नई
(2) Bengaluru-Chennai/बेंगलुरु-चेन्नई
(3) Hyderabad-Raipur/हैदराबाद-रायपुर
(4) Mumbai-Surat/मुंबई-सूरत

56. Which substance offers no resistance to the flow of electricity?
कौन-सा पदार्थ बिजली के प्रवाह को कोई प्रतिरोध प्रदान नहीं करता है?
(1) Insulator/विसंवाहक
(2) Conductor/संवाहक
(3) Capacitor/संधारित्र
(4) Super conductor/अतिचालक

57. Which among the following is a property of the wires used for making electric fuses?
निम्नलिखित में से कौन-सा बिजली का फ्यूज बनाने के लिए इस्तेमाल तारों का एक गुण है?
(1) Low melting point/कम गलनांक
(2) High melting point/अधिक गलनांक
(3) High resistance/अधिक प्रतिरोध
(4) Low conductivity/कम चालकता

58. How would a small circular disc with seven rainbow colours appears when rotated fast?

सात इंद्रधनुष के रंगों वाला छोटा-सा परिपत्र डिस्क तेजी से घुमाये जाने पर कैसा प्रतीत होगा?

(1) Red/लाल
(2) Violet/बैंगनी
(3) Green/हरा
(4) White/सफेद

59. The transfer of pollen from the anther to the stigma of the same flower is called

पराग को पराग-कोश (एंथर) से उसी फूल के वर्तिकाग्र (स्टिग्मा) में हस्तांतरण को _____ कहा जाता है।

(1) Self-pollination/स्वपरागण
(2) Cross-pollination/पर-परागण
(3) Reverse-pollination/रिवर्स-परागण
(4) Synthetic-pollination/कृत्रिम-परागण

60. Which is the unit of inheritance in living organisms?

कौन-सी जीवित जीवों में विरासत की इकाई है?

(1) Nucleolus/केंद्रिका
(2) Chromosome/गुणसूत्र
(3) Gene/वंशाणु या पितृक
(4) Cell/कोशिका

61. A small piece of a thin strip of magnesium burns with a brilliant _____ light.

मैग्नीशियम की एक पतली पट्टी का छोटा-सा टुकड़ा एक चमकदार _____ प्रकाश के साथ जलता है।

(1) Yellow/पीला
(2) Red/लाल
(3) Blue/नीला
(4) White/सफेद

62. The reaction between acid and base is called as

अम्ल तथा क्षारक के बीच प्रतिक्रिया को _____ कहा जाता है।

(1) Detoxification/विषहरण
(2) Emulsification/पायसीकरण
(3) Neutralisation/उदासीनीकरण
(4) Fermentation/किण्वन

63. Which substance increases the rate of chemical reaction without being consumed?

कौन-सा पदार्थ बिना खपत हुए, रासायनिक प्रतिक्रिया की दर को बढ़ाता है?

(1) Buffer/बफर
(2) Solvent/विलायक
(3) Solute/विलेय
(4) Catalyst/उत्प्रेरक

64. Which among the following ensures that the nutrients of the dead plants and animals are released into the soil?

निम्नलिखित में से कौन सुनिश्चित करता है कि मृत पौधों तथा जानवरों के पोषक तत्वों को मिट्टी में छोड़ दिया जाए?

(1) Presence of canopy/चंदवा (कैनोपी) की उपस्थिति
(2) Presence of seedlings/अंकुरों की उपस्थिति

(3) Presence of humus/ह्यूमस की उपस्थिति
(4) No option is correct/कोई विकल्प सही नहीं है

65. What can be said about the competition for light, nutrition and space between closely related organisms growing in the same area/niche?

प्रकाश, पोषक तत्व तथा स्थान के लिए समान स्थान पर पनप रहे जीवों के मध्य प्रतियोगिता के विषय में क्या कहा जा सकता है?

(1) It does not exists/इसका कोई अस्तित्व नहीं है
(2) It rarely exists/इसका अस्तित्व बहुत दुर्लभ है
(3) It is most severe/यह सर्वाधिक तीव्र होते हैं
(4) It is moderate/यह औसत होता है

66. Which state has started programmes such as 'Hamari Shala Kaisi Ho' and 'Shala Siddhi Karyakram' in all government schools of the state?

किस राज्य ने राज्य के सभी सरकारी स्कूलों में 'हमारी शाला कैसी हो' तथा 'शाला सिद्धि कार्यक्रम' जैसे कार्यक्रम शुरू किए हैं?

(1) Bihar/बिहार
(2) Madhya Pradesh/मध्य प्रदेश
(3) Punjab/पंजाब
(4) Uttar Pradesh/उत्तर प्रदेश

67. Which is a new central sector scheme for Agro-marine Processing and development of Agro-Processing Clusters?

कौन-सी एग्रो-प्रोसेसिंग क्लस्टर तथा कृषि-समुद्री प्रसंस्करण के विकास के लिए एक नई केंद्रीय क्षेत्र की योजना है?

(1) Pradhan Mantri Kisan Sampada Yojana
प्रधानमंत्री किसान सम्पदा योजना
(2) Pradhan Mantri Krishi Vikas Yojana
प्रधानमंत्री कृषि विकास योजना
(3) Pradhan Mantri Kisan Kaushal Yojana
प्रधानमंत्री किसान कौशल योजना
(4) Pradhan Mantri Kisan Samriddhi Yojana
प्रधानमंत्री किसान समृद्धि योजना

68. Scientists have discovered most ancient _____ galaxy named A1689B11, recorded so far in the universe.

वैज्ञानिकों ने ब्रह्मांड के अब तक की दर्ज की गई सबसे प्राचीन A1689811 नामक _____ आकाशगंगा की खोज की है।

(1) Spiral/कुंडलित
(2) Elliptical/दीर्घवृत्तीय
(3) Irregular/अनियमित
(4) Zig-Zag/टेढ़े-मेढ़े

69. RNA editing for programmable A to I replacement is a gene editing tool to combat

आरएनए संपादन के लिए प्रोग्राम बनाने योग्य ए टू आई प्रतिस्थापन ____ का मुकाबला करने के लिए एक जीन संपादन उपकरण है।

(1) Genetic disease/आनुवंशिक रोग
(2) DNA degeneration/डीएनए अधः पतन
(3) Morphological changes/आकृति परिवर्तन
(4) No option is correct/कोई विकल्प सही नहीं है

70. India defeated Malaysia in 2017 Men's Asia Cup Hockey title to win its overall _____ Asia cup title.

भारत ने अपना समग्र _____ एशिया कप खिताब जीतने के लिए पुरुषों की 2017 एशिया कप हॉकी खिताब में मलेशिया को हराया।

(1) Second/दूसरे

(2) Third/तीसरे

(3) Fourth/चौथे

(4) Fifth/पांचवे

71. Which shuttler won silver medal at 2017 World Badminton Championship?

2017 में विश्व बैडमिंटन चैम्पियनशिप में किस बैडमिंटन खिलाड़ी ने रजत पदक जीता ?

(1) Saina Nehwal/साइना नेहवाल

(2) P. V. Sindhu/पी. वी. सिंधु

(3) Jwala Gutta/ज्वाला गुट्टा

(4) Neha Pandit/नेहा पंडित

72. On July 18, 2017 India and China submitted a joint proposal in World Trade Organisation on which among the following?

18 जुलाई, 2017 को निम्नलिखित में से किस पर भारत तथा चीन ने विश्व व्यापार संगठन में एक संयुक्त प्रस्ताव प्रस्तुत किया था?

(1) Aggreg ate Measurement of Support

सहायता का समग्र मापन

(2) Trade-distorting subsidies

व्यापार विकृत सब्सिडी

(3) Rules of agricultural trade

कृषि व्यापार के नियम

(4) No option is correct

कोई विकल्प सही नहीं है

73. On October 29, 2017 India flagged off shipment of wheat for which country through Iran's Chabahar port?

29 अक्टूबर, 2017 को भारत ने ईरान के चाबहार बंदरगाह के माध्यम से किस देश के लिए गेहूँ का लदान भेजा था?

(1) Afghanistan/अफगानिस्तान

(2) Myanmar/म्यांमार

(3) Maldives/मालदीव

(4) Pakistan/पाकिस्तान

74. Who has been awarded 2017 Hridaynath Mangeshkar Award?

2017 के हृदयनाथ मंगेशकर पुरस्कार से किसे सम्मानित किया गया है?

(1) Amitabh Bachchan/अमिताभ बच्चन

(2) A.R. Rahman/ए. आर. रहमान

(3) Javed Akhtar/जावेद अख्तर

(4) Asha Bhosle/आशा भोसले

75. Who has won 2017 Discovery Education 3M young scientist challenge?

2017 डिस्कवरी एजुकेशन 3 एम युवा वैज्ञानिक प्रतियोगिता किसने जीती है?

(1) Gitanjali Rao/गीतांजलि राव

(2) Maanasa Mendu/मानस मेंदु

(3) Laalitya Acharya/लालित्य आचार्य

(4) Anika Bhagavatula/अनिका भगवातुला

76. Which organisation in India is planning to bring 'Initial Coin Offerings (ICO)' under its existing legal framework?

भारत में कौन-सा संगठन अपने वर्तमान कानूनी ढांचे के तहत 'इनिशियल कॉइन ऑफरिंग्स (आईसीओ)' लाने की योजना बना रहा है?

(1) Securities and Exchange Board of India (SEBI)

भारतीय प्रतिभूति तथा विनिमय बोर्ड (सेबी)

(2) Reserve Bank of India (RBI)

भारतीय रिजर्व बैंक (आरबीआई)

(3) State Bank of India (SBI)

स्टेट बैंक ऑफ इंडिया (एसबीआई)

(4) Indian Economic Development and Research Association (IEDRA)

भारतीय आर्थिक विकास तथा अनुसंधान संघ (आईईडीआरए)

77. According to the Grant Thornton International Business Report, 2017 India has slipped to which position in the Business Optimism Index in the September quarter?

ग्रांट थर्नटन इंटरनेशनल बिजनेस रिपोर्ट, 2017 के अनुसार सितम्बर तिमाही में भारत बिजनेस ऑप्टिमिज्म इंडेक्स में किस स्थान पर खिसक गया है?

(1) 5th/वाँ   (2) 7th/वाँ

(3) 11th/वाँ   (4) 18th/वाँ

78. With which country, India has signed 6 MoUs to boost important sectors including energy, trade and railways on 30 October 2017?

30 अक्टूबर, 2017 को भारत ने किस देश के साथ ऊर्जा, व्यापार तथा रेलवे सहित महत्त्वपूर्ण क्षेत्रों को बढ़ावा देने के लिए 6 समझौता ज्ञापनों पर हस्ताक्षर किए हैं?

(1) Italy/इटली   (2) Spain/स्पेन

(3) Germany/जर्मनी   (4) France/फ्रांस

79. In which city Ethopia organised a Business Dialogue on 5th October, 2017 to commemorate the 12th anniversary of the India Business Forum?

5 अक्टूबर, 2017 को इथियोपिया ने किस शहर में भारत व्यापार मंच की 12वीं वर्षगांठ को मनाने के लिए एक व्यापार वार्ता का आयोजन किया था?

(1) Addis Ababa/अदिस अबाबा

(2) Dire Dawa/दिरे दावा

(3) Bahir Dar/बहीर दार

(4) Harar/हरार

80. Which year's version of the wetland rules in India will be replaced by the new wetland rules, 2017 notified on September 26, 2017?

भारत में आर्द्रभूमि के नियमों का किस वर्ष का संस्करण, 26 सितम्बर, 2017 को अधिसूचित नए आर्द्रभूमि नियम, 2017 द्वारा प्रतिस्थापित होगा?

(1) 2002   (2) 2005
(3) 2010   (4) 2013

81. The Talanoa Dialogue is structured around three key questions. Which is NOT among the three questions?

तलानोआ वार्ता तीन मुख्य प्रश्नों के आस-पास संरचित है। कौन-सा तीन प्रश्नों में से नहीं है?

(1) Where are we?
हम कहाँ हैं?

(2) Where do we want to go?
हम कहाँ जाना चाहते हैं?

(3) What needs to be done?
क्या किये जाने की आवश्यकता है?

(4) How do we get there?
हम वहाँ कैसे जायेंगे?

82. Who was made Brand Ambassador for Swachh Bharat Mission in Uttar Pradesh in August, 2017?

अगस्त 2017 में, उत्तर प्रदेश में स्वच्छ अभियान के लिए ब्रांड एंबेसडर किसे बनाया गया?

(1) Amitabh Bachchan/अमिताभ बच्चन

(2) Akshay Kumar/अक्षय कुमार

(3) Sunil Shetty/सुनील शेट्टी

(4) Vidya Balan/विद्या बालन

83. Who is the youngest Indian to climb 6, 153 meter high mountain Stock Kangri?

6,153 मीटर ऊँचा पर्वत स्टोक कांगड़ी चढ़ने वाले सबसे कम आयु के भारतीय कौन है?

(1) Laavnya/लावण्या

(2) Kaamya Karthikeyan/काम्या कार्तिकेयन

(3) Arati Saha/आरती साहा

(4) Archana Sardana/अर्चना सरदाना

84. On October 27, 2017 which country became the first ever nation to leave the International Criminal Court (ICC)?

27 अक्टूबर, 2017 को कौन सा देश अंतर्राष्ट्रीय अपराध न्यायालय (आईसीसी) को छोड़ने वाला पहला देश बना है?

(1) Sudan/सूडान   (2) Israel/इजराइल

(3) Burundi/बुरुंडी   (4) Russia/रूस

85. In October, 2017 which country's passport has become the most powerful in the world with a Visa-free score of 159?

अक्टूबर, 2017 में किस देश का पासपोर्ट 159 के वीजा मुक्त स्कोर के साथ दुनिया का सबसे शक्तिशाली बन गया है?

(1) Netherland/नीदरलैंड   (2) Indonesia/इंडोनेशिया

(3) Japan/जापान   (4) Singapore/सिंगापुर

QUANTITATIVE APTITUDE

86. If $2^n = \sqrt{32}$, then what is the value of n?

यदि $2^n = \sqrt{32}$ हो, तो n का मान क्या है?

(1) $\dfrac{5}{2}$ (2) $\dfrac{3}{2}$

(3) $\dfrac{1}{2}$ (4) $\dfrac{7}{2}$

87. What is the value of 12 + 13 + 14 + ... 30?

(12 + 13 + 14 +.... 30) का मान क्या है?

(1) 365   (2) 399
(3) 409   (4) 465

88. What is the value of $3\dfrac{1}{2} + 5\dfrac{1}{6} + 7\dfrac{1}{12} + 9\dfrac{1}{20}$?

$3\dfrac{1}{2} + 5\dfrac{1}{6} + 7\dfrac{1}{12} + 9\dfrac{1}{20}$ का मान क्या है?

(1) $\dfrac{124}{5}$ (2) $\dfrac{122}{11}$

(3) $\dfrac{120}{7}$ (4) $\dfrac{127}{15}$

89. What is the largest number that exactly divides 24, 36 and 60?

वह सबसे बड़ी संख्या क्या है, जो 24, 36 तथा 60 को पूर्णतः विभाजित करती है?

(1) 8   (2) 4
(3) 12   (4) 16

90. What is the value of (0.12 ÷ 0.03 × 0.01)?

0.12 ÷ 0.03 × 0.01 का मान क्या है?

(1) 4.01   (2) 0.04
(3) 0.4   (4) 0.0401

91. If 60% of a number is added to 200, then the result is the number itself, then what is the number?

यदि किस संख्या का 60%, 200 में जोड़ा जाए, तो प्राप्त परिणाम संख्या के बराबर है, तो संख्या क्या है?

(1) 500   (2) 250
(3) 600   (4) 750

92. A mixture contains alcohol and water in the ratio 1 : 5. If it contains 2 litres more water than alcohol, then what will be the quantity (in litres) of water in the mixture?

एक मिश्रण में एल्कोहल तथा जल 1 : 5 के अनुपात में है। यदि इसमें जल, एल्कोहल से 2 लीटर अधिक है, तो मिश्रण में जल की मात्रा (लीटर में) कितनी होगी?

(1) 3.5   (2) 1
(3) 2.5   (4) 0.5

93. What is the average of first 12 multiples of 5?

5 के प्रथम 12 अपवर्त्यों का औसत क्या है?

(1) 31.5　　　　　　　(2) 33.75

(3) 32.5　　　　　　　(4) 33.5

94. A sum amounts to Rs. 5240 in 2 years and amounts to Rs. 6288 in 3 years on compound interest. What is the rate of interest (in %) per annum?

एक राशि 2 वर्षों में चक्रवृद्धि ब्याज पर 5240 रुपए हो जाती है तथा 3 वर्षों में 6288 रुपए हो जाती है। वार्षिक ब्याज दर (% में) क्या है?

(1) 10　　　　　　　(2) 20

(3) 15　　　　　　　(4) 30

95. A trader bought an article for Rs. 1400. What should be the selling price (in Rs.) of the article to earn a profit of 20%?

एक विक्रेता एक वस्तु को 1400 रुपए में खरीदता है। 20% का लाभ कमाने के लिए वस्तु का विक्रय मूल्य (रुपए में) क्या होना चाहिए?

(1) 1610　　　　　　(2) 1560

(3) 1680　　　　　　(4) 1780

96. A fan is sold at a discount of 20%. The cost price of the fan is Rs. 960. If 30% profit is to be earned, then what should be the marked price (in Rs.) of the fan?

एक पंखा 20% की छूट पर बेचा जाता हैं। पंखे का क्रय मूल्य 960 रुपए है। यदि 30% का लाभ अर्जित किया जाए, तो पंखे का अंकित मूल्य (रुपए में) कितना होना चाहिए?

(1) 1820　　　　　　(2) 1600

(3) 1560　　　　　　(4) 1340

97. If the area of a circle inscribed in a square is 16p cm², then what will be the area (in cm².) of the square?

यदि किसी वर्ग के भीतर खींचे गए वृत्त का क्षेत्रफल 16π सेमी.² है, तो वर्ग का क्षेत्रफल (सेमी.² में) क्या होगा?

(1) 64　　　　　　　(2) 76

(3) 25　　　　　　　(4) 16

98. The distance between places P and Q is 900 km. A train starts from place P at 8 am at a speed of 25 m/s. The train stops on the way for 1 hour 40 minutes. At what time (in p.m.) train will reach at Q?

दो स्थान P तथा Q के मध्य की दूरी 900 किमी. है। एक रेलगाड़ी स्थान P से प्रातः 8 बजे, 25 मी./से. की गति से चलना प्रारंभ करती है। रेलगाड़ी रास्ते में 1 घंटा 40 मिनट रुकती है। रेलगाड़ी स्थान Q पर किस समय (अपराह्न में) पहुँचेगी?

(1) 6 : 40　　　　　　(2) 7 : 40

(3) 8 : 05　　　　　　(4) 7 : 20

99. A starts a business by investing Rs. 35000. After 5 months B joins the business with an investement of Rs. 50000. What will be the ratio of their profits at the end of the year?

A, 35000 रुपए का निवेश करके एक व्यापार आरंभ करता है। 5 महीनों के पश्चात् B, 50000 रुपए के निवेश के साथ व्यापार से जुड़ जाता है। वर्ष के अंत में उनके लाभ का अनुपात क्या होगा?

(1) 6 : 5　　　　　　(2) 7 : 10

(3) 12 : 7　　　　　　(4) 8 : 5

100. Two taps J and L can fill a tank in 12 minutes and 14 minutes respectively. If an outlet tap K is opened, then all three can together fill the tank in 21 minutes. How much time (in minutes) will tap K take to empty the tank?

दो नल J तथा L एक टंकी को क्रमशः 12 मिनट तथा 14 मिनट में भर सकते हैं। यदि एक निकास नल K को खोला जाए, तो तीनों एक साथ मिलकर टंकी को 21 मिनट में भर सकते हैं। नल K अकेला उस टंकी को खाली करने में कितना समय (मिनटों में) लेगा?

(1) $\dfrac{39}{4}$　　　　　　(2) $\dfrac{32}{3}$

(3) $\dfrac{28}{3}$　　　　　　(4) 10

ANSWERS

1. (1)	**2.** (4)	**3.** (3)	**4.** (4)	**5.** (2)
6. (4)	**7.** (4)	**8.** (2)	**9.** (2)	**10.** (4)
11. (4)	**12.** (2)	**13.** (1)	**14.** (2)	**15.** (2)
16. (1)	**17.** (1)	**18.** (2)	**19.** (4)	**20.** (4)
21. (4)	**22.** (4)	**23.** (2)	**24.** (3)	**25.** (2)
26. (3)	**27.** (4)	**28.** (3)	**29.** (2)	**30.** (2)
31. (4)	**32.** (3)	**33.** (1)	**34.** (2)	**35.** (1)
36. (1)	**37.** (2)	**38.** (3)	**39.** (3)	**40.** (3)
41. (4)	**42.** (4)	**43.** (2)	**44.** (2)	**45.** (3)
46. (3)	**47.** (3)	**48.** (2)	**49.** (2)	**50.** (2)
51. (1)	**52.** (2)	**53.** (3)	**54.** (4)	**55.** (1)
56. (4)	**57.** (1)	**58.** (4)	**59.** (1)	**60.** (3)
61. (4)	**62.** (3)	**63.** (4)	**64.** (3)	**65.** (3)
66. (2)	**67.** (1)	**68.** (1)	**69.** (1)	**70.** (2)
71. (2)	**72.** (1)	**73.** (1)	**74.** (3)	**75.** (1)
76. (1)	**77.** (2)	**78.** (1)	**79.** (1)	**80.** (3)
81. (3)	**82.** (2)	**83.** (2)	**84.** (3)	**85.** (4)
86. (1)	**87.** (2)	**88.** (1)	**89.** (3)	**90.** (2)
91. (1)	**92.** (3)	**93.** (3)	**94.** (2)	**95.** (3)
96. (3)	**97.** (1)	**98.** (2)	**99.** (1)	**100.** (3)

EXPLANATIONS

1. (1) First belongs to second. Red is a colour. Similarly, Pen is a stationery item.

2. (4) T R U M P⟶Q N V S U
with +1 markings

Similarly,

B R U C E⟶F D V S C
with +1 markings

3. (3) 324 + 333 = 657
Similarly,
461 + 333 = 794

4. (4) Cow is an animal which belongs to the class Mammal.
Rodents, Reptiles and Ambhibians represent different classes of animals.

5. (2)
J ^{2} L ^{3} O ^{2} Q ^{3} T
B ^{2} D ^{3} G ^{2} I ^{3} L
H ^{2} J ^{3} M ^{2} O ^{3} R
But,
E ^{2} G ^{3} J ^{2} L $^{+4}$ P

6. (4) Except the number-pair '23–21', in all other number-pairs, the difference between the two numbers is '3'.
7 – 4 = 3
9 – 6 = 3
11 – 8 = 3
But,
23 – 21 = 2

7. (4) Except the number-pair '7–50', in all other number-pairs, the second number is three more than the square of the first number.
6 → 6 × 6 + 3 = 39
9 → 9 × 9 + 3 = 84
4 → 4 × 4 + 3 = 19
But,
7 → 7 × 7 + 1 = 50

8. (2)

The triangles are : ΔAEC; ΔDCE; ΔFGE; ΔBHC

9. (2)

The rectangles are :
BCJI; IJLK; KLFG; BCLK; BCFG; IJFG;
ABGH; ACFH; ADEH; CDEF; BDEG
Thus, there are 11 rectangles in the given figure.

10. (4) The six numbers are :
3, 4, 5, 7, 8 and 9.
The numbers 4, 5, 7 and 9 are on the faces adjacent to the number 3.
Therefore, 8 lies opposite 3.

11. (4) There are three surfaces in one arm besides the front and back surfaces. Therefore, there are 3 × 3 + 2 = 11 surfaces.

12. (2)

13. (1)

14. (2)

15. (2) First Figure
4 × 6 + 5 × 3
⇒ 24 + 15 = 39
Second Figure
2 × 7 + 8 × 5
⇒ 14 + 40 = 54
Third Figure
3 × 4 + 7 × 8
⇒ 12 + 56 = 68

16. (1) Pen, Pencil and Bottle are three different things. Therefore, these can be represented by three disjoint circles.

Pen   Pencil

Bottle

17. (1) Fans which are fast but not white can be represented by such number which is present in the circle and the rectangle but is outside the triangle. Such number is '20'.

18. (2) There is no 'E' letter in the given word. Therefore, the word CARE cannot be formed.

I N C A $\boxed{\text{R N A}}$ T $\boxed{\text{I}}$ O N $\Rightarrow$ RAIN

I N $\boxed{\text{C}}$ A $\boxed{\text{R}}$ N A T $\boxed{\text{I O}}$ N $\Rightarrow$ COIR

I N C A $\boxed{\text{R N A T I}}$ O N $\Rightarrow$ TRAIN

19. (4) First Premise is Universal Negative (E-type). Second Premise is Particular Affirmative (I-type).

No vehicle is white.

Some white are blue.

E + I $\Rightarrow$ O$_1$–type of Conclusion.
"Some blue are not vehicles".
Thus, neither Conclusion I nor Conclusion II follows.

20. (4) First Premise is Universal Affirmative (A–type). Second Premise is Particular Affirmative (I–type).

All pencils are watches.

Some watches are black.

A + I $\Rightarrow$ No Conclusion
Thus, neither Conclusion I nor Conclusion II follows.

21. (4) Only daughter of Lokesh's mother means sister of Lokesh.
Lady is the daughter of Lokesh's sister.
Therefore, Lokesh is uncle (maternal) of that lady.

22. (4) J is son of P.
L is sister of J.
Therefore, L is daughter of P.
M is daughter of A.
P is brother of M.
Therefore, P is son of A.
Thus, L is granddaughter of A.

23. (2) 80 % of 300

$\Rightarrow \dfrac{80}{100} \times 300 = 240$

40% of 240

$\Rightarrow \dfrac{40}{100} \times 240 = 96$

Required number = 240 – 96 = 144

24. (3) $\dfrac{3x-6}{2x-6} = \dfrac{12}{7}$

$\Rightarrow 7\,(3x–6) = 12\,(2x–6)$

$\Rightarrow 21x – 42 = 24x – 72$

$\Rightarrow 24x – 21x = 72 – 42$

$\Rightarrow 3x = 30$

$\therefore \ x = \dfrac{30}{3} = 10$

Smaller number = $2x = 2 \times 10 = 20$

25. (2) Except figure (2), all other figures are similar. In figure (2) the line attached to bigger triangle extends upto one of the vertices of the triangle.

26. (3) Except figure (3), all other figures are similar. In figure (3) two smaller line segments point opposite directions.

27. (4) Except figure (4), in all other figures the number of designs $\left(\boxdot\right)$ is equal to the number of sides of the main design.
In figure (4) there are four sides in the main design and there are only three designs $\left(\boxdot\right)$.

28. (3) 11 + 2 = 13
13 + 3 = 16
16 + 4 = 20
20 + 5 = 25
25 + 6 = $\boxed{31}$

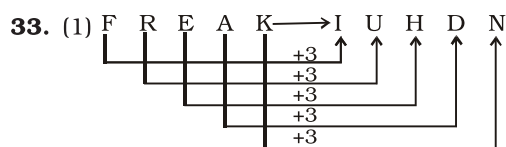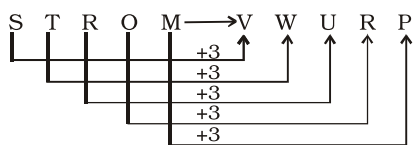**29.** (2) 5 + 6 = 11
6 + 11 = 17
11 + 17 = 28
17 + 28 = $\boxed{45}$

30. (2) In each subsequent figure one line segment is added to a set pattern.

31. (4) In the subsequent figures, the design $\left(\boxdot\right)$ rotates through 45°, 90°, 135°, 180°............ anti-clockwise respectively.

32. (3) In each subsequent figure all the three designs are inverted and the outermost design becomes the innermost design, the middle design becomes the outermost design and the innermost design becomes the middle design.

33. (1) F R E A K $\longrightarrow$ I U H D N
+3
+3
+3
+3
+3

Therefore,

```
S  T  R  O  M ──→ V  W  U  R  P
│  │  │  │  ↑ +3 ↑  ↑  ↑  ↑  ↑
│  │  │  └──── +3
│  │  └─────── +3
│  └────────── +3
└───────────── +3
```

34. (2)

```
S    T    A    M    P
↓    ↓    ↓    ↓    ↓
19 + 20 + 1 +  13 + 16 = 69
```
$\Rightarrow 69 + 2 = 71$

```
F    R    O    M
↓    ↓    ↓    ↓
6 +  18 + 15 + 13 = 52
```
$\Rightarrow 52 + 2 = 54$

Therefore,

```
L    O    C    K    S
↓    ↓    ↓    ↓    ↓
12 + 15 + 3 +  11 + 19 = 60
```
$\Rightarrow 60 + 2 = 62$

35. (1)
```
L U K E W O R M ──→ O T Q Y G M W N
        │ ↑ +2 ↑ ↑ ↑ ↑ ↑ ↑
        └──── +2
       ┌───── +2
       └───── +2
            +2
            +2
            +2
            +2
```

Therefore,

```
S T A L M A T E ──→ G V C O N C V U
        │ ↑ +2 ↑ ↑ ↑ ↑ ↑ ↑
        └──── +2
            +2
            +2
            +2
            +2
            +2
            +2
```
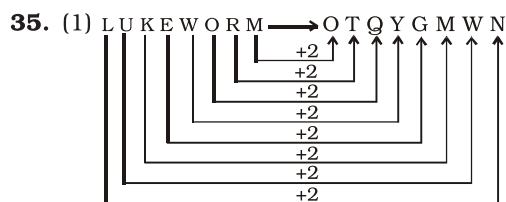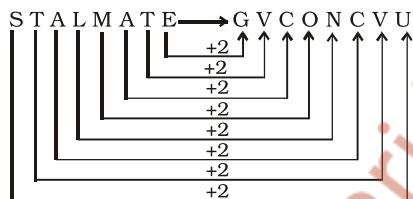
36. (1) The four requirements of production of goods and services are land, labour, physical capital and human capital. Labour represents all the people that are available to transform resources into goods or services that can be purchased. Land is the physical and mental efforts of human beings used for the production of goods and services.

37. (2) The General Agreement on Tariffs and Trade (GATT) was replaced by the World Trade Organization (WTO) on 1 January 1995. GATT, that came into being on 1 January 1948, remained in effect until the signature by 123 nations in Marrakesh on April 14, 1994, of the Uruguay Round Agreements, which established the WTO.

38. (3) The farmers of Punjab, Haryana and Western Uttar Pradesh were the first to try out the modern farming methods in India. The methods used by them included: setting up tube wells for irrigation; making use of HYV seeds, chemical fertilizers and pesticides in farming; making ploughing and harvesting easier by using tractors and threshers.

39. (3) Buffer stock refers to a reserve of a commodity that is used to offset price fluctuations and unforeseen emergencies. Buffer stock is generally maintained for essential commodities and necessities like foodgrains, pulses etc. buffer stock is maintained for meeting the prescribed minimum buffer stock norms for food security.

40. (3) Aristocracy is a form of government that places power in the hands of a small, privileged ruling class. An aristocratic state is marked by a relatively small privileged class or by a minority consisting of those felt to be best qualified to rule. It is made up of collected people who are thought to be exceptional in some way.

41. (4) Preamble is an introductory statement in a Constitution which states the reasons and guiding values of the Constitution. It contains the philosophy on which the entire Constitution has been built.It provides a standard to examine and evaluate any law and action of government, to find out whether it is good or bad.

42. (4) Preamble to the Constitution of India is a brief introductory statement that sets out the guiding purpose and principles of the document. It mentions that the aim of the Republic of India is secure to all its citizens:

● JUSTICE, social, economic and political;

● LIBERTY of thought, expression, belief, faith and worship;

● EQUALITY of status and of opportunity; and to promote among them all

● FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation

43. (2) The Fundamental Duties are defined as the moral obligations of all citizens to help promote a spirit of patriotism and to uphold the unity of India.Since no one can enforce morals, they are not enforceable. They are more like a reminder of Indian culture, traditions, values of freedom struggle etc.

44. (2) In ancient India, tax was fixed at 1/6th of what was produced. This was known as bhaga or a share. It was the regular, customary, and legitimate share of the king on the agricultural produce of the revenue-paying land. However, the rates varied according to the quality of the land.

45. (3) Bimbisara and his son Ajatshatru were the most powerful rulers of Magadha mahajanapada. while Bimbisara led an active and expansive policylaid the foundations for the later expansion of the Maurya Empire, Ajatshatru, too, followed policies

of conquest and expansion. Magadha under him became the most powerful kingdom in North India.

46. (3) The Natal Indian Congress (NIC) was an organisation that aimed to fight discrimination against Indians in South Africa. It was founded by Mahatma Gandhi in 1894 to fight discrimination against Indian traders in Natal.

47. (3) Under the leadership of Gandhi, the Civil Disobedience Movement was launched with the Dandi March on 12 March 1930. Gandhi led the Dandi march from Sabarmati Ashram to the sea coast near the village of Dandi.Breaking of the salt law was the formal inauguration of the Civil Disobedience Movement.

48. (2) From the beginning Jainism was supported mainly by traders. This was because Jainism was against some of the rituals and practices preached and followed by the Brahmins. Besides, its stress on non-violence appealed to the trader's longing for peace so conducive for their profession.

49. (2) Mahavira was born into the royal Kshatriya family of King Siddhartha and Queen Trishala, a sister of Chetak, an eminent Lichchhavi prince of Vaishali. The Lichchhavi were the most famous clan amongst the ruling confederate clans of the Vajji Mahajanapada of. Vaishali the capital of the Lichchhavi, was the capital of the Vajji mahajanapada also.

50. (2) The Tropic of Cancer passes through the following eight states in India: Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, Jharkhand, West Bengal, Tripura, and Mizoram.

51. (1) Vembanad Lake of Kerala is the longest lake in India with a length of 95.6 km. Besides, it is the largest lake in Kerala. Spanning several districts in the state, it is known as Vembanadu Lake in Kottayam, Punnamada Lake in Kuttanad, Kochi Lake in Kochi. The Nehru Trophy Boat Race is conducted in a portion of the lake.

52. (2) Kumaon Himalayas lies between Sutlej and Kali rivers. It is the west-central part of the Himalayas extending over 200 miles (320 km) from the Sutlej River east to the Kali River. At an altitude of above 14,000 feet (4,300 metres) is covered by snow all-round the year.

53. (3) The headwaters of the Ganga, called the 'Bhagirathi,' is fed by the Gangotri Glacier and joined by the Alaknanda at Devprayag in Uttarakhand. In Hindu mythology and culture, the Bhagirathi is considered the source stream of the Ganges. However, in hydrology, the other headstream, Alaknanda, is considered the source stream on account of its great length and discharge. At Haridwar, the Ganga emerges from the mountains on to the plains.

54. (4) The coastal areas experience less variation in temperature as compared to land due to the moderating effect of the seas. Since the heating and cooling capacity of water is much less as compared to land, water takes more time to get hot or cold than land. So,the areas near seas have more moderate temperature during the day time and are less cool at night.

55. (1) India and Asian Development Bank (ADB), in February 2017, signed $375 million pact for loans and grants to develop 800 km Visakhapatnam-Chennai Industrial Corridor.It is the first phase of a planned 2,500-km East Coast Economic Corridor.

56. (4) Superconductivity is a phenomenon displayed by certain conductors that demonstrate no resistance to the flow of an electric current. Once a current has been started in a superconducting circuit, it continues to flow indefinitely. Superconductivity is manifested only below a certain critical temperature.

57. (1) A fuse is a type of low resistance resistor that acts as a sacrificial device to provide overcurrent protection, of either the load or source circuit. Low resistance causes the fuse wire to melt if a current more than the safe current for the appliance starts flowing through the circuit. Besides, the wire of fuse has very low melting point. When high current flows through the circuit due to overloading or a short circuit, the wires gets heated and melts.

58. (4) A small circular disc with segments in different colours (usually Newton's primary colours: red, orange, yellow, green, blue, indigo, and violet) appearing as white (or off-white or grey) when it spins very fast. It is also known as Newton disc. This type of mix of light stimuli is called temporal optical mixing, a version of additive-averaging mixing.

59. (1) In self-pollination, the pollen from the anther of a flower is transferred to the stigma of the same flower or the stigma of a different flower on the same plant. Then, pollination occurs, and a seed is able to form.This transfer can happen when the pollen grains literally spill onto the stigma, or the transfer can occur with the aid of a pollinator, like an insect, wind, or water.

60. (3) The units of inheritance in living organisms are the genes which are the hereditary characters present in an individual. It is present in the chromosomes in the nucleus of a cell. Genes, which are made up of DNA, act as instructions to make molecules called proteins. In humans, genes vary in size from a few hundred DNA bases to more than 2 million bases.

61. (4) A small piece of a thin strip of magnesium burns with a vivid flash of white light. When it is completely burnt it leaves behind a powdery ash. Magnesium is a highly flammable metal, but, while it is easy to ignite when powdered or shaved into thin strips, it is difficult to mass or bulk.

62. (3) An acid-base reaction is called a "neutralization reaction." It consists of the transfer of a hydroxide ion (H+) from the acid to the base. They are therefore usually "displacement reactions," but can also be combination reactions. The products are a salt and usually water. Therefore, they are also called "water-forming reactions."

63. (4) Catalyst refers to substance that starts or speeds up a chemical reaction while undergoing no permanent change itself. With a catalyst, reactions occur faster and with less energy. The enzymes in saliva, for example, are catalyst in digestion.

64. (3) The presence of humus ensures that the nutrients of the dead plants and animals are released into the soil.Humus is the dark organic matter that forms in the soil when plant and animal matter decays. Humus contains many useful nutrients for healthy soil, nitrogen being the most important of all.

65. (3) Whenever two niches overlap, competition ensues between organisms. In case of intraspecific competition within the species, the niche overlap is near 100%. Individuals of the same species compete for the exact same things in the environment, therefore this is the strongest type of competition.

66. (2) Madhya Pradesh's school education department has launched 'Hamari Shala Kaisi Ho' and 'Shala Siddhi Karyakram' in all government schools of the state in order to provide qualitative education to the students. It has also started Shala Siddhi Prohatsan Yojana under the programme in 25 thousand schools of the state to encourage best works.

67. (1) Pradhan Mantri Kisan Sampada Yojana (PMKSY) is a new central scheme on agro-food processing. It was earlier known as Scheme for Agro-Marine Processing and Development of Agro-Processing Cluster (SAMPADA). It includes schemes such as mega food parks, food safety and quality assurance infrastructure, integrated cold chain and value addition infrastructure, infrastructure for agro-processing clusters, creation/expansion of food processing & preservation capacities, etc.

68. (1) Scientists, in November 2017, announced to have discovered the most ancient spiral galaxy in the universe that existed 11 billion years ago and could provide insights into the early cosmos. The galaxy, known as A1689B11, existed just 2.6 billion years after the Big Bang, when the universe was only one fifth of its present age.

69. (1) RNA Editing for Programmable A to I Replacement (REPAIR) is a new gene editing tool therapies that can reverse genetic disease-causing mutations in humans. REPAIR is based on gene editing tool CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) that can be used to modify DNA in cells.

70. (2) India, in October 2017, defeated a gutsy Malaysia 2-1 in a close final to clinch its third Asia Cup hockey title in Dhaka. India had last won the Asia Cup in 2003 (Kuala Lumpur) and 2007 (Chennai). Malaysia had earlier won the bronze in the 2007 edition of the event in Chennai.

71. (2) Indian ace shuttler and 2017 Rio Olympic silver medallist PV Sindhu, in August 2017, won the silver medal in 2017 World Badminton Championship held at Glasgow, Scotland (United Kingdom).In the final match, Sindhu lost to Japan's Nozomi Okuhara.

72. (1) India and China, on 18 July 2017, jointly submitted a proposal to the WTO calling for the elimination - by developed countries - of the most trade-distorting form of farm subsidies, known as Aggregate Measurement of Support (AMS). The proposal countered the efforts by some countries to target the subsidies of the developing countries while letting the developed countries retain their huge farm subsidies.

73. (1) India, in October 2017, flagged off a shipment of wheat for Afghanistan through Iran's Chabahar port—marking the operationalization of the port for the trans-shipment of goods from India to the landlocked country. This was a major push for India's Afghan outreach bypassing Pakistan.

74. (3) Veteran writer-lyricist Javed Akhtar was, in October 2017, honoured with the 2017 Hridaynath Mangeshkar Award at event in Mumbai which marked 80th birthday of veteran music composer Hridaynath Mangeshkar and 28th anniversary of Hridayesh Arts. The previous recipients of the award include eminent personalities like Lata Mangeshkar, Asha Bhosle, Amitabh Bachchan, Hariprasad Chaurasia, A R Rahman.

75. (1) Indian-American Gitanjali Rao, in October 2017, won the 2017 Discovery Education 3M Young Scientist Challenge for inventing a quick, low-cost test to detect lead-contaminated water. Rao's prototype device named Tethys, after the Greek goddess for fresh water is sensor-based device detects the quality of water and shares the results to a mobile application via Bluetooth.

76. (1) India's capital market regulator Securities and Exchange Board of India (SEBI) is planning to bring Initial Coin Offerings (ICO) under its existing legal framework. In recent times, popularity of crypto currencies has increased rapidly and number of entities looking at raising funds through ICO.

77. (2) According to Grant Thornton's International Business Report (IBR), released in November 2017, India slipped in 'business optimism' index to the 7th position in the September quarter, from the 2nd slot in the previous quarter, showing clear signs of lag in the economy. Indonesia topped the report, followed by Finland (2nd), the Netherlands (3rd), Philippines (4th), Austria (5th).

78. (1) India and Italy on 30 October 2017 signed six Memorandums of Understanding (MoU) to boost cooperation in various important sectors including energy and trade and railways.The pacts were signed after detailed high-level talks between Indian Prime Minister Narendra Modi and visiting Italian Prime Minister Paolo Gentiloni.

79. (1) The India-Ethiopia Business Dialogue, organised to commemorate the 12th Anniversary of the India Business Forum, was held in Addis Ababa on 5 October 2017. The forum is the first partner-country forum of its kind in Ethiopia and represents more than 100 Indian companies.

80. (3) In a major decision, the union environment ministry notified the new Wetland (Conservation and Management) Rules 2017 on 26 September 2017 that will replace the 2010 version of the rules. The new rules prohibit a range of activities in wetlands like setting up and expansion of industries, waste dumping and discharge of effluents.

81. (3) 'Talanoa' is a traditional approach used in Fiji and the Pacific to engage in an inclusive, participatory and transparent dialogue. As per the COP23 decision, it has been structured around three questions - where are we? where do we want to go? and how do we get there? - to arrive at answers with consensus.

82. (2) Uttar Pradesh Chief Minister Yogi Adityanath, on 17 August 2017, announced the appointment of Bollywood actor Akshay Kumar as the brand ambassador of the Swachh Bharat Mission in the state. The state government aims to make the state defecation free by October 2, 2018.

83. (2) Kaamya Karthikeyan scaled one of the highest Himalayan peaks, Mount Stok Kangri (20,187 feet or 6,153 meters above sea level) on August 7, 2017. She has become the youngest to climb Mt Stok Kangri in the Ladakh Himalayas. Earlier in May 2017, she had successfully reached the base camp of Mt Everest at 5,464 metres.

84. (3) Burundi, in October 2017, became the first country to withdraw from the International Criminal Court (ICC), a year after it notified the United Nations secretary-general of its intention to leave the court that prosecutes the world's worst atrocities. Burundi accuses ICC of focusing too much on the continent.

85. (4) According to the Global Passport Power Rank 2017, released in October 2017, Singapore has world's most powerful passport, making it first Asian country to top it. Singapore's passport scored visa-free score of 159 in the index.It means that approximately 3.4 million holders of Singaporean passports can now travel to 159 countries either without visa or can have one issued on arrival.

86. (1) $2^n = \sqrt{32} = (32)^{\frac{1}{2}}$

$\Rightarrow 2^n = \left(2^5\right)^{\frac{1}{2}}$

$\Rightarrow 2^n = (2)^{\frac{5}{2}}$

$\Rightarrow n = \frac{5}{2}$

[If $a^m = a^n$, then $m = n$]

87. (2) $1 + 2 + 3 + \ldots + n$

$= \frac{n(n+1)}{2}$

$\therefore \ 12 + 13 + \ldots + 30$

$= (1 + 2 + 3 + \ldots + 30) - (1 + 2 + 3 + \ldots + 11)$

$= \frac{30 \times 31}{2} - \frac{11 \times 12}{2}$

$= 465 - 66 = 399$

88. (1) Expression

$= 3 + \frac{1}{2} + 5 + \frac{1}{6} + 7 + \frac{1}{12} + 9 + \frac{1}{20}$

$= (3 + 5 + 7 + 9) + \left(\frac{1}{2} + \frac{1}{6} + \frac{1}{12} + \frac{1}{20}\right)$

$= 24 + \left(\frac{30 + 10 + 5 + 3}{60}\right)$

$= 24 + \frac{48}{60} = 24\frac{4}{5} = \frac{124}{5}$

89. (3) $24 = 2 \times 2 \times 2 \times 3$

$36 = 2 \times 2 \times 3 \times 3$

$60 = 2 \times 2 \times 3 \times 5$

Required H.C.F. $= 2 \times 2 \times 3 = 12$

90. (2) Expression = 0.12 ÷ 0.03 × 0.01

$= \dfrac{0.12}{0.03} \times 0.01 = 4 \times 0.01 = 0.04.$

91. (1) Let the number be x.
According to the question,

$\dfrac{60x}{100} + 200 = x$

$\Rightarrow \dfrac{3x}{5} + 200 = x$

$\Rightarrow x - \dfrac{3x}{5} = 200$

$\Rightarrow \dfrac{2x}{5} = 200$

$\Rightarrow x = \dfrac{200 \times 5}{2} = 500$

92. (3) Let the quantity of water be x liters.
∴ Quantity of alcohol = $(x - 2)$ litres
According to the question,

$\dfrac{x-2}{x} = \dfrac{1}{5}$

$\Rightarrow 5x - 10 = x$

$\Rightarrow 5x - x = 10$

$\Rightarrow 4x = 10 \Rightarrow x = \dfrac{10}{4} = 2.5$ litres

93. (3) First 12 multiples of 5
= 5, 10, 15, ... 60
∴ Required average

$= \dfrac{5\,(1 + 2 + 3 + ... + 12)}{12}$

$= \dfrac{5 \times 12 \times 13}{12 \times 2} = \dfrac{65}{2} = 32.5$

94. (2) $A = P\left(1 + \dfrac{R}{100}\right)^{T}$

∴ $5240 = P\left(1 + \dfrac{R}{100}\right)^{2}$ ......(i)

$6288 = P\left(1 + \dfrac{R}{100}\right)^{3}$ ....(ii)

By equation (ii) ÷ (i),

$1 + \dfrac{R}{100} = \dfrac{6288}{5240}$

$\Rightarrow \dfrac{R}{100} = \dfrac{6288}{5240} - 1 = \dfrac{6288 - 5240}{5240}$

$\Rightarrow \dfrac{R}{100} = \dfrac{1048}{5240} = \dfrac{1}{5}$

$\Rightarrow R = \dfrac{1}{5} \times 100 = 20\%$ per annum.

95. (3) Required S.P.

$= Rs.\left(\dfrac{1400 \times 120}{100}\right) = Rs.1680$

96. (3) Let the marked price of fan be Rs.x.
According to the question,

$x \times \dfrac{80}{100} = \dfrac{960 \times 130}{100}$

$\Rightarrow x \times 80 = 960 \times 130$

$\Rightarrow x = \dfrac{960 \times 130}{80} = Rs.\ 1560$

97. (1) Clearly, diameter of circle = side of square
Area of circle = πr^2
$\Rightarrow \pi \times r^2 = 16\pi$
$\Rightarrow r^2 = 16 \Rightarrow r = \sqrt{16} = 4$ cm.
∴ Side of square
$= 2 \times 4 = 8$ cm.
∴ Area of square = 8 × 8
= 64 sq.cm.

98. (2) PQ = 900 km.
Speed = 25 m./sec.

$= \left(25 \times \dfrac{18}{5}\right)$ kmph = 90 kmph.

Time $= \dfrac{900}{90} = 10$ hours

Period of stoppage
= 1 hour 40 minutes
∴ Required time = 8 a.m. + 11 hours 40 minutes
= 7 : 40 p.m.

99. (1) Ratio of the shares of A and B = Ratio of the equivalent capitals of A and B
= 35000 × 12 : 50000 × 7
= 6 : 5

100. (3) Let the pipe K fill the empty the full tank in x minutes.
According to the question,

$\dfrac{1}{12} + \dfrac{1}{14} - \dfrac{1}{x} = \dfrac{1}{21}$

$\Rightarrow \dfrac{1}{x} = \dfrac{1}{12} + \dfrac{1}{14} - \dfrac{1}{21} = \dfrac{7 + 6 - 4}{84} = \dfrac{9}{84} = \dfrac{3}{28}$

∴ $x = \dfrac{28}{3}$ minutes ❏❏❏