

CONTENTS

| S.No. | Topics | No. of Ques. | Page No. |
|---------------------|-----------------------------------|--------------|----------|
| NTSE 2015-16 | | | |
| 1. | Mental Ability Test (MAT) | (50 ques.) | 1-7 |
| 2. | Language Comprehension Test (LCT) | (50 ques.) | 8-14 |
| 3. | Scholastic Aptitude Test (SAT) | (100 ques.) | 15-22 |
| NTSE 2014-15 | | | |
| 1. | Mental Ability Test (MAT) | (50 ques.) | 23-27 |
| 2. | Language Comprehension Test (LCT) | (40 ques.) | 28-34 |
| 3. | Scholastic Aptitude Test (SAT) | (90 ques.) | 35-42 |
| NTSE 2013-14 | | | |
| 1. | Mental Ability Test (MAT) | (50 ques.) | 43-47 |
| 2. | Language Comprehension Test (LCT) | (40 ques.) | 48-54 |
| 3. | Scholastic Aptitude Test (SAT) | (90 ques.) | 55-62 |
| NTSE 2012-13 | | | |
| 1. | Mental Ability Test (MAT) | (90 ques.) | 63-72 |
| 2. | Scholastic Aptitude Test (SAT) | (90 ques.) | 73-81 |

NTSE-I

MENTAL ABILITY AND LANGUAGE COMPREHENSION TEST

INSTRUCTIONS TO CANDIDATES

1. Write all Nos. in English only.
2. Verify the roll number Printed on OMR Sheet with the roll number given in admission card.
3. If your roll number is not Printed on OMR answer sheet then write roll number on blank space provided on the sheet. Write one digit on one block.
4. Do not write anything else on the question paper, in any case do not mark answer on the question paper.
5. There are 100 questions in this paper. All the questions are compulsory. Each question carries one mark.
6. In this question paper, question number 1 to 50 are to examine mental ability and question number 51 to 100 are Test language comprehension.
7. Language comprehension test consist of two sections, Hindi and English, From these two sections only question from one language has to be attempted.
8. Serial Nos. of all the question are written on the Answer sheet. In front of these the Serial Nos. A, B, C, D probable answer are given You have to select the correct answer and black in the circle around it.

Example (A) (B) (C) (D) (C is correct Ans.)

9. Mark answer on separate OMR Answer sheet given.
10. Blank sheets are attached at the end of question paper for rough work, please don't tear these off.
11. Handing over of the Answer Sheet, to the invigilator, is compulsory after the examination.
12. Candidate can carry question paper with themselves.

NTSE-II

SCHOLASTIC APTITUDE TEST (SAT)

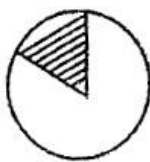
INSTRUCTIONS TO CANDIDATES

1. Write all Nos. in English only.
2. Write all your Roll No. given in admission card on this question paper as well as on the Answer sheet. Write only one digit in one block.
3. Do not write anything else on the question paper, in no case mark answer on the question paper.
4. There are 100 questions in this paper. All the questions are compulsory. Each question carries one mark.
5. There are sheets, for rough work at the end of question paper do not tear these off from the question paper.
6. Serial Nos. of all the question are written on the Answer sheet. In front of these the Nos. A, B, C, D probable answer are given. You have to select the correct answer and black in the circle around it.
Example (A) (B) (C) (D) (C is correct Ans.)
7. Mark answer on separate Answer sheet given.
8. Time for each question is short, keep time in your mind do not waste it.
9. Handing over of the Answer sheet, to the invigilator, is compulsory after the examination.

MENTAL ABILITY

Directions (Q. No. 1 to 5): There is a (number/letter) series in the following questions with an item missing, marked with the question mark (?). Find the best appropriate option from the given options-

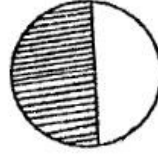
1. 0, 6, 24, 60, 120, 210, (?)
 (A) 290 (B) 336 (C) 504 (D) 240
2. 3, 15, (?), 63, 99, 143
 (A) 35 (B) 45 (C) 27 (D) 56
3. BZA, DYC, FXE, (?), JVI
 (A) HUG (B) UHG (C) WHG (D) HWG
4. Q1F, S2E, U6D, W21C, (?)
 (A) Y44B (B) Y66B (C) Y88B (D) Z88B
5. N5V, K7T, (?), E14P, B19N
 (A) H9R (B) H10R (C) I10R (D) H10S
6. If output of machine A is 20% damaged and out of the rest another 37.5% falls in lower quality grade. Which of the following figure will depict the output of the good quality?



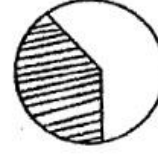
(A)



(B)



(C)



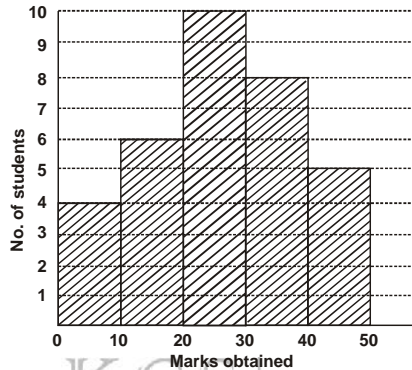
(D)

7. The average age of A and B is 20 years. If A is replaced by C, the average age would be 19 and if B is replaced by C, the average age would be 21. What are the ages of A, B and C ?
 (A) 18, 20, 22 (B) 18, 22, 20 (C) 22, 20, 18 (D) 22, 18, 20
8. If LEAP is written as PEAL then how is 8326 written?
 (A) 2368 (B) 6283 (C) 6328 (D) 2683
9. ELLIPSE is related to CURVE in the same way as SQUARE is related to
 (A) POINT (B) CIRCLE (C) POLYGON (D) ROUND
10. Which letter-number combination will replace the question mark (?)
 $PO / 31 : NM / 27 :: IH / 17 : ?$
 (A) GM / 16 (B) GT / 14 (C) GV / 16 (D) GF / 13

11. Discover the pattern in the following question and select the best appropriate option from the given choices-
- A D C F
 C F E H
 E H G J
 O R ? ?
- (A) LK (B) MN (C) ST (D) QT

Directions (Q. No. 12 to 15):

Study the following bar graph carefully and answer the questions given below.



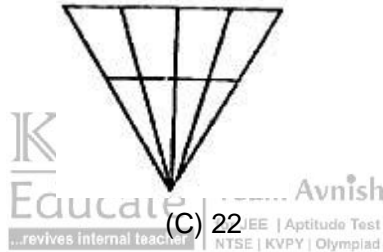
12. Total number of students involved in data-
 (A) 10 (B) 32 (C) 33 (D) 43
13. Maximum number of students lie in which interval-
 (A) 10 – 20 (B) 20 – 30 (C) 30 – 40 (D) 40 – 50
14. Minimum number of students lie in which interval-
 (A) 0 – 20 (B) 10 – 20 (C) 30 – 40 (D) 40 – 50
15. Ratio of the number of students, who obtained marks in first and last interval-
 (A) 4 : 6 (B) 4 : 5 (C) 5 : 6 (D) 3 : 4

Directions (Q. No. 16 to 18):

Seven villages A, B, C, D, E, F and G are situated as following

- (a) E is 2 km to the west of B
 (b) F is 2 km to the north of A
 (c) C is 1 km to the west of A
 (d) D is 2 km to the south of G
 (e) G is 2 km to the east of C
 (f) D is exactly in the middle of B and E
16. Which two villages are farther from one another ?
 (A) F – E (B) G – E (C) D – C (D) F – B
17. How far is E and F ?
 (A) 5 km (B) $\sqrt{26}$ km (C) 4 km (D) $\sqrt{20}$ km

18. A is in the middle of which two villages-
 (A) E – G (B) E – C (C) G – C (D) F – G
19. 2880 is divided by which smallest number so that we get a perfect square number?
 (A) 2 (B) 3 (C) 4 (D) 5
20. Find the value of the following-
 $(40 \times 40 \times 40 - 31 \times 31 \times 31) \div (40 \times 40 + 40 \times 31 + 31 \times 31)$
 (A) 34209 (B) 71 (C) 9 (D) 36410
21. From the given alternatives select two such signs, when these are mutually interchanged, the following equation becomes correct.
 $36 \div 12 \times 6 + 9 - 6 = 38$
 (A) -, x (B) \div , x (C) -, + (D) \div , +
22. Find the correct group of letters in place of ? in the following series.
 FNHLJ, WOUQS, BNEKH, ?, DTHPL
 (A) NBKEH (B) NVPTR (C) NFLHJ (D) NDRZV
23. How many triangles are there in the following figure-



- (A) 20 (B) 18 (C) 22 (D) 17

Directions (Q. No. 24 to 27): Choose the correct water image of the given words/numbers from amongst the alternative.

24. ANSWER
 (A) ANZMEB (B) BNMZEV (C) BNMZVA (D) EVBMMZ
25. REFLECTION
 (A) EBFELION (B) REFLECTION (C) REFLECTION (D) REFLECTION
26. T3P2Y5
 (A) 1E2P3T (B) 13P2Y5 (C) 13P2Y5 (D) 13P2Y5
27. RJ6MA7
 (A) R19MA7 (B) R10MA7 (C) R10MA7 (D) R10MA7

Directions (Q. No. 28 to 29): The information about the students wearing T-shirts having number 7, 8, 9 and 10 is given below. Read the given information and answer the following questions.

- (1) The player having number 7 and 9 play football as well as cricket.
 (2) The fat player having number 8 participates in all games except kho-kho and football.
 (3) The player carrying number 9 is very short. He is expert in kabaddi. The player having number 10 is very slim. He participates in all games except the football.
 (4) The player having number 7 is very tall.
28. Which game can be played by one and only one player-
 (A) Kabaddi (B) Kho-Kho (C) Cricket (D) Football

29. Name the game, which is played by the slim player but cannot be played by the fat player-
- (A) Cricket (B) Football
(C) Kho-Kho (D) Kabaddi
30. In a certain examination, 77% candidates passed in English and 34% failed in Mathematics. If 13% failed in both the subjects and 784 candidates passed in both the subjects then the total number of candidates that appeared in examination
- (A) 1200 (B) 1400
(C) 1600 (D) 1800

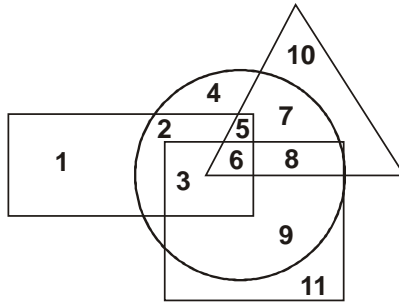
Direction (Q. No. 31 to 35): Read the following information and answer the questions.

Seven managers Mr. Sharma, Mr. Mishra, Mr. Singh, Mr. Kulkarni, Mr. Rao, Mr. Joshi and Mr. Nair are to conduct interviews simultaneously either alone or in pairs at four different locations- Surat, Chandigarh, Delhi and Lughnow. One wants to travel by rail, two prefer travelling by car and the rest travel by air.

- (1) Mr. Sharma is going to Lughnow but neither by car nor by air.
(2) Mr. Mishra prefer to travel by car.
(3) Neither Mr. Joshi nor Mr. Nair is going to Delhi.
(4) Only those going to Surat travel by road.
(5) Mr. Kulkarni will assist his friend Mr. Mishra.
(6) The two managers who go to Delhi will travel by air.

31. Where will Mr. Kulkarni conduct the interviews?
- (A) Surat (B) Lughnow
(C) Chandigarh (D) None of these
32. Who goes to Delhi?
- (A) Mr. Mishra – Mr. Kulkarni (B) Mr. Rao – Mr. Singh
(C) Mr. Kulkarni – Mr. Joshi (D) Data inadequate
33. Which of the following is true?
- (A) Mr. Kulkarni travels by air (B) Mr. Nair will assist Mr. Rao
(C) Mr. Sharma conducts interviews alone (D) Mr. Joshi goes to Chandigarh
34. Who will conduct interviews at Chandigarh?
- (A) Mr. Nair (B) Mr. Singh
(C) Mr. Rao (D) None of these
35. Which of the following pair is different from the other three with regard to mode of travel?
- (A) Mr. Sharma – Mr. Mishra (B) Mr. Rao – Mishra
(C) Mr. Nair – Mr. Rao (D) Mr. Kulkarni – Mr. Joshi

Directions (Q. No. 36 to 40): In the diagram below circle represents wheat, triangle represents sugarcane, rectangle represents rice and square represents millet producing areas. Study the diagram carefully and answer the questions given below.



36. Which area has the cultivation of all the four commodities mentioned?
 (A) 3 (B) 5 (C) 6 (D) 3
37. Which area gives millet, sugarcane and wheat?
 (A) 6 (B) 9 (C) 5 (D) 8
38. Which area grows sugarcane and wheat only?
 (A) 7 (B) 8 (C) 6 (D) 5
39. Which area grows only wheat and rice?
 (A) 6 (B) 8 (C) 2 (D) 7
40. Which area grows wheat only?
 (A) 2 (B) 3 (C) 4 (D) 5

Directions (Q. No. 41 to 45):

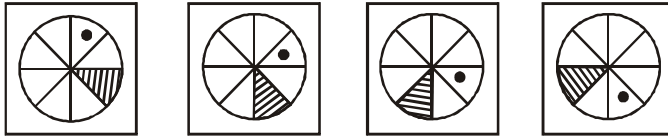
- (i) P, Q, R, S, T and U are travelling in a bus.
 (ii) There are two reporters, two technicians, one photographer and one writer in the group.
 (iii) The photographer P is married to S, who is reporter.
 (iv) Lady writer is married to Q who is of the same profession as that of U.
 (v) P, R, Q, S are two married couples and no body in the group has same profession.
 (vi) U is brother of R.
41. Which of the following is a pair of technicians?
 (A) RS (B) SU (C) PT (D) QU
42. Which of the following is pair of reporters?
 (A) PQ (B) RT (C) ST (D) SU
43. How is R related to U?
 (A) Brother (B) Sister (C) Uncle (D) Cannot say
44. Which of the following pair is a couple?
 (A) PQ (B) QR (C) QS (D) PT
45. Which of the following is a pair of husbands?
 (A) PQ (B) PR (C) QS (D) Cannot say

Directions (Q. No. 46 to 48):

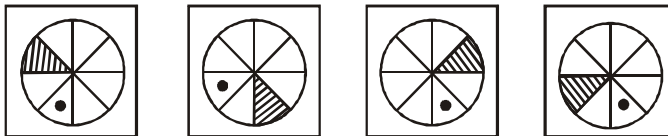
Two sets of the figures are given. One set is of question-figures and another set is of answer figures. Question figures are arranged in a sequence. One figure from the answer figures is to be selected such that it can be placed in the 5th place of the question figures, find the best appropriate alternative from answer figures.

46.

47. Question – Figures



Answer – Figures



(A)

(B)

(C)

(D)

48. Question – Figures



Answer – Figures



(A)

(B)

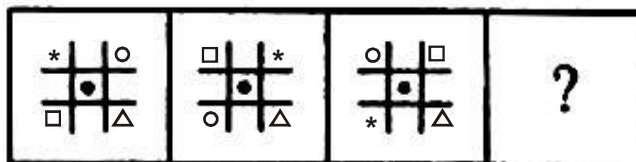
(C)

(D)

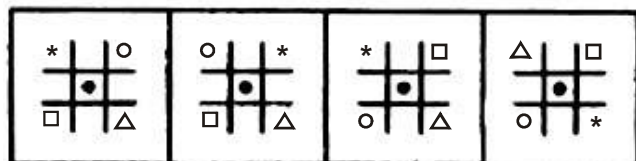
Educate Team Avnish
for JEE | Aptitude Test
NTSE | KVPY | Olympiad
Success Educate Pvt. Ltd.

Directions (Q. No. 49 to 50): Which option from the answer figure will continue the series given in the question figures?

49. Question – Figures



Answer – Figures



(A)

(B)

(C)

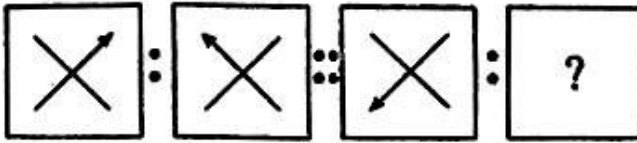
(D)

Delhi: 1B, Block GG1, Vikaspuri, New Delhi-110018.

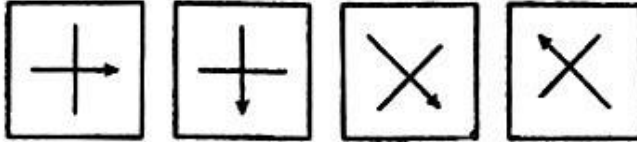
Bhilai: 157, New Civic Centre, Bhilai, Durg (C.G.). Ph. No. 0788 - 6454505

Website: www.kcseducate.in | Email: info@kcseducate.in

50. Question – Figures



Answer – Figures



(A)

(B)

(C)

(D)

LANGUAGE COMPREHENSIVE (LCT)

Instructions for Q. No. 51, 52 & 53):

The following five sentences come from a paragraph/dialogue. The first and last sentences are given; choose the order in which the three sentences (PQR) should appear to complete the paragraph/dialogue.

51. S1. Marie Curie was born in Poland on November 7, 1867.
S2.
S3.
S4.
S5. In 1911, Marie Curie was awarded the Nobel Prize for Chemistry for the discovery of Radium and Polonium.
P. She and her husband were awarded the Nobel Prize for Physics in 1903.
Q. She got married to Pierre Curie in 1895.
R. Marie and her husband discovered the radioactive material in 1902.

Choose from the options below-

- (A) POR (B) QRP (C) RQP (D) RQP

52. S1. Mother-Where are you going, Rahul?
S2.
S3.
S4.
S5. Mother-When will you be back from Rahim's house ?
P. Rahul – Yes Mom I have.
Q. Mother-Have you finished your home work?
R. Rahul – I am going to Rahim's house, Mom.

Choose from the options below-

- (A) PQR (B) QPR (C) RQP (D) PRQ

53. S1. Boil the water first.
S2.
S3.
S4.
S5. Lastly add sugar to taste.
P. Add tea leaves to the boiling water.
Q. Filter the decoction.
R. Then add milk to the decoction.

Choose from the options below-

- (A) RPQ (B) QPR (C) POR (D) PRQ

Instructions for (Q. 54 to 56):

The following questions have the second sentence missing. Choose the appropriate sentence from the given options to complete it.

54. 1. Kiran loves to colour.
2.
3. The walls of her room are filled with pictures.
(A) Kiran lives in Australia with her grandmother.
(B) Her dad lives in Mumbai and works for a Multinational company.
(C) Every time Kiran finishes a picture, she tapes it on her wall.
(D) Kiran is fond of dancing and has many friends.

55. 1. Get a small shovel to dig some holes.
 2.
 3. Water them regularly and wait for them to grow.
 (A) Bring the seeds home and decide where to plant them.
 (B) Pick the flowers and put them in a vase.
 (C) Go to the store to buy some flower seeds.
 (D) Put seeds in the hole and cover with dirt.
56. 1. Put the letter into an envelope when you have completed.
 2.
 3. Put the stamp on the envelope and mail it.
 (A) Get a paper, a pen or pencil, an envelope, and a stamp.
 (B) Take some paper and make an envelope.
 (C) Go to post office and buy an envelope.
 (D) Write the address on the envelope of the person you are sending it to.

Instructions for (Q. 57 to 61):

Choose the word which best fills the blank from the four options given below:

57. She carefully the tea into the cups.
 (A) put (B) kept (C) poured (D) placed
58. The spread around the stadium included numerous paper cups, tickets stubs and wrappers
 (A) shops (B) paper (C) dustbin (D) debris
59. You are too close friends to on such small issues.
 (A) play (B) quarrel (C) read (D) speak
60. More food was needed for the flood
 (A) victims (B) crowd (C) people (D) mob
61. I with you. This movie is really boring! Let's change the channel.
 (A) accord (B) agree (C) meet (D) join

Instructions for (Q. 62 to Q. 66):

Choose the correct meanings for the given idioms/phrases.

62. Talk of the town:
 (A) Another name of the town
 (B) The subject of much discussion in the town
 (C) The way people talk in the town
 (D) a place where people assemble and talk in the town
63. Monkey business:
 (A) an intelligent behaviour (B) a mischievous behaviour
 (C) an illegal behaviour (D) a focused behaviour
64. Make big:
 (A) to become at (B) to be angry (C) to be famous (D) to be successful
65. By hook or crook
 (A) To get adjusted in every situation (B) To do something by all means
 (C) To understand everything well (D) To hang on something
66. To keeps one's temper:
 (A) To become hungry (B) To stay calm
 (C) To preserve ones energy (D) To be aloof from

Instructions for (Q. 67 to Q 70):

Find out the alternatives which are most opposite in meanings to the words given.

67. Dispensable:
(A) dependable (B) superfluous (C) essential (D) outdated
68. Overwhelmed:
(A) unhappy (B) complete (C) mouthful (D) annoyed
69. Agile:
(A) feeble (B) swift (C) slow (D) lively
70. Preface
(A) foreword (B) forward (C) introduction (D) conclusion

Instructions for (Q. 71 to Q 73):

Select the most appropriate options to fill in the blank from the following alternatives given below:

71. done the homework?
(A) Has you (B) Have you (C) Will he (D) Should they
72. He would starve to death rather than for a loan.
(A) have ask (B) to have asked (C) to ask (D) ask
73. Compare the answers your partner.
(A) by (B) of (C) with (D) to

Instructions for Q. No. (74 to 76):

Choose the alternative which can be substituted for the sentence:

74. A disease that spreads over a large area:
(A) Epidemic (B) Academic
(C) Incurable (D) Invincible
75. That which cannot be avoided:
(A) incomparable (B) Indisputable
(C) irreparable (D) inevitable
76. Government by rich:
(A) aristocracy (B) oligarchy
(C) plutocracy (D) pantsocracy

Instructions for (Q. No. 77 to 85):

In the following passage there are some numbered blanks. Fill in the blanks by selecting the most appropriate word from the options.

When Ramesh got off the train 77 walked out of the left gate 78 the railway station. The bus stop was 79 outside the left gate. He waited 80 bus No. 64 to Raweli arrived. When he bought 81 tick he told the conductor 82 he would get off at Lal Bazar. He asked the conductor 83 long it would take to reach there. The conductor 84, "Half an hour sir". He was exited 85 reach there as his friend Rehan was waiting there to meet him.

77. (A) she (B) he
(C) it (D) they
78. (A) in (B) on
(C) of (D) with
79. (A) just (B) between
(C) on (D) by
80. (A) for (B) till
(C) to (D) near

81. (A) my (B) our
(C) her (D) his
82. (A) which (B) and
(C) that (D) if
83. (A) what (B) how
(C) why (D) when
84. (A) opened (B) say
(C) said (D) tell
85. (A) for (B) to
(C) in (D) by

Instructions for (Q. No. 86 to 90):

Read the passage and choose the best alternative for the questions given below-

A material is what something is made of. There are five basic materials. Most things are made with these materials. They are metal, glass, wood, cloth and plastic. There are some other materials also. But they are not used as much as these five materials.

Let's talk about metal first. Metal is very heavy. And it is very hard and strong. It usually feels cool if you touch it. We use metal to make lots of things. We use it for forks and knives. We use it for keys. We use it for cars. We use it for these things because it is very strong.

Next, let's talk about glass. Glass is very smooth. It feels cool to touch. It is not as heavy as metal. It is hard. But it is not strong. It breaks very easily. Then why do we use it? We use it because it is clear. You can see through glass. That's why we use it for windows.

Now, let's talk about wood. Wood is lighter than metal and glass. It is not as strong as metal, But it is much stronger than glass. We use wood to make lots of things. Things made from wood are usually light and hard and strong. Chairs and tables are made from wood. Pencils are made from wood.

Now let's talk about cloth. Cloth is very light. It is much lighter than wood. And it is very soft. We use cloth to make lots of things. For example, it is used to make clothing. And it is used to make blankets.

Last, let's talk about plastic. Plastic is also very light. But it is different from cloth. Sometimes it is soft. And sometimes it is hard. Plastic can be used to make thin plastic bags. These are light, soft, and strong. But plastic can also be used to make helmets. These are light, hard, and strong. A helmet and a bag seem different but they are both made from plastic.

86. Which sentence from the passage best describes the main idea?
(A) "We use cloth to make lots of things." (B) "There are five basic materials"
(C) "Metal is very heavy." (D) "A helmet and a bag seem different."
87. According to the passage, which of these things is a material?
(A) chairs (B) clothing (C) windows (D) wood
88. According to the passage, how does glass feel?
(A) sharp and heavy (B) warm and soft (C) light and hard (D) smooth and cool
89. In paragraph 4, the passage says, "Wood is lighter than metal and glass. "What is the main purpose of this sentence?
(A) to explain something (B) to recommend something
(C) to demonstrate something (D) to compare something
90. Which material would you use if you wanted to make something that was strong and very light?
(A) glass (B) plastic
(C) metal (D) wood

Instructions for (Q. No. 91 to 90):

Read the passage and choose the best alternative for the questions given below-

Did you know that some people don't do their reading assignments? It's shocking but it's true. Some students don't even read short texts that they are assigned in class. There are many reasons for this. They may be distracted or bored. They may be unwilling to focus. They may be unconfident readers. Whatever the reason, it has to stop today. Here's why.

Reading stimulates your mind. It is like a workout for your brain. When people get old, their muscles begin to deteriorate. They get weaker and their strength leaves them. Exercise can prevent this loss. The same thing happens to people's brains when they get older. Brain power and speed decline with age. Reading strengthens your brain and prevents these declines.

You can benefit from reading in the near-term too. Reading provides knowledge. Knowledge is power. Therefore, reading can make you a more powerful person. You can learn to do new things by reading. Do you want to make video games? Do you want to design clothing? Reading can teach you all this and more. But you have to get good at reading, and the only way to get good at something is to practice.

Read everything that you can at school, regardless of whether you find it interesting. Reading expands your vocabulary. Even a "boring" text can teach you new words. Having a larger vocabulary will help you better express yourself. You will be able to speak, write, and think more intelligently. What's boring about that?

Do not just discard a text because it is unfamiliar to you. Each time you read, you are exposed to new ideas and perspectives. Reading can change the way that you understand the world. It give you a broader perspective on things. It can make you worldlier. You can learn how people live in faraway places. You can learn about cultures different from your own.

Reading is good for your state of mind. It has a calming effect. It can lower your stress levels and help you relax. You can escape from your troubles for a moment when read, and it's a positive escape. The benefits of reading far outweigh those of acting. So do yourself a favor: the next time you get a reading assignment, take as much as you can from it. Squeeze it for every drop of knowledge that it contains. Then move on to the next one.

- 91.** Which best expresses the main idea of the second paragraph?
- (A) Reading is exciting. (B) Age affects the body in many ways.
(C) Reading strengthens your mind. (D) Working out keeps your body in shape.
- 92.** Why does the author think that you should read books that are boring?
- (A) You will eventually grow to love them if you read them enough.
(B) You will get better grades in reading class.
(C) You will make your teacher very happy.
(D) You will learn new words.
- 93.** Which best expresses the main idea of the third paragraph?
- (A) Reading can benefit you
(B) You can learn amazing things and become a better person by reading.
(C) You can learn to program video games or design clothing by reading.
(D) Knowledge is power.
- 94.** Which is not a reason given by the author why students fail to complete reading assignments?
- (A) Students may be bored. (B) Students may be tired.
(C) Students may be unwilling to focus. (D) Students may be distracted.

95. Which best expresses the author's main purpose in writing this text?
- (A) He is entertaining readers with facts about the mind and body.
 (B) He is teaching people how to become better readers.
 (C) He is explaining why people don't do their reading work.
 (D) He is trying to persuade students to do their reading work.
96. Which best describes the author's tone in the first three sentences?
- (A) Surprised (B) Sarcastic (C) Informative (D) Irate
97. Which of the following is not one of the author's main points?
- (A) Reading broadens your perspective and makes you a better person.
 (B) Reading helps you perform on test and get into selective schools.
 (C) Reading is a relaxing activity with positive mental side effects.
 (D) Reading keeps your mind in shape and prevents losses due to age.
98. Why does the author believe that reading is good for your mind state?
- (A) It has a calming effect (B) It can lower your stress levels
 (C) It can help you relax (D) All of these
99. Which is not one of the author's arguments in the fifth paragraph?
- (A) Reading gives you a broader perspective on the world
 (B) Reading helps prepare you for your job in the real world
 (C) Reading teaches you about distant lands and cultures
 (D) Reading changes the way that you understand the words
100. Which title best expresses the main idea of this text?
- (A) Reading : Improves Your Vocabulary (B) Reading : The Key to speak better
 (C) Reading : Its Importance (D) Reading : Improves Your Writing Skills

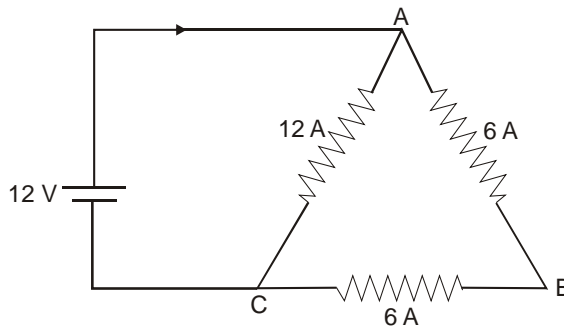
ANSWERS

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

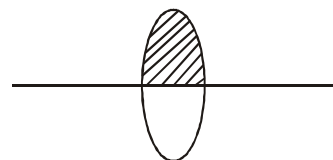
***NOTE** – The question was not readable in the original question paper.

SCHOLASTIC APTITUDE TEST (SAT)

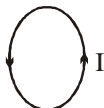
1. A body is thrown vertically upward with velocity U . Then maximum height attained by the body will be-
 (A) $\frac{1}{2}gt^2$ (B) $\frac{U^2}{2g}$ (C) $\frac{-U^2}{2g}$ (D) None of these
2. Which of the following is the smallest unit-
 (A) Fermi (B) Micron (C) Millimeter (D) Kilometer
3. The current in the given dielectric circuit is-



- (A) $\frac{1}{2}A$ (B) 1 A (C) 2A (D) 3A
4. A body of volume V and density d is completely immersed in a liquid of density ρ then the apparent weight of the body will be-
 (A) vdg (B) $v\rho g$ (C) $v(\rho - d)g$ (D) $v(d - \rho)g$
5. The co-efficient of cubical expansion of a metal is $7.2 \times 10^{-5} C^{-1}$ Then its superficial expansion will be-
 (A) $2.4 \cdot C^{-1}$ (B) $4.8 \cdot C^{-1}$ (C) $7.2 \cdot C^{-1}$ (D) None of these
6. A mirror forms a virtual, erect and small image then kind of mirror is-
 (A) Plane (B) Concave (C) Convex (D) A and B both
7. The time period of hour needle of clock is-
 (A) 1 hour (B) 24 hour (C) 6 hour (D) 12 hour
8. Lightning conductor is made of-
 (A) Iron (B) Copper (C) Tin (D) Wood
9. A water pump raises 50 liters of water UP to a height of 25 meter in 5 second. Then the power of water pump will be-
 (A) 2500 watt (B) 6250 watt (C) 1250 watt (D) 625 watt
10. If the upper half of convex lens is wrapped with a black paper, then how the image formed by it will be effected-
 (A) The size of the image is reduced to one half
 (B) The upper part of the image is reduced
 (C) The intensity of the image is reduced
 (D) There will be no effect on image



11. A circular loop carrying current I then the direction of the magnetic field at the centre with the help of magnetic lines of force will be-



12. For making an electromagnet the most suitable material is-
 (A) Stainless steel (B) Silver (C) Soft Iron (D) Nickel
13. On which of the following does not exert any force when kept in uniform magnetic field-
 (A) Moving magnet (B) Moving charge (C) Stationary magnet (D) Stationary charge
14. The electronic configuration of an element with atomic number 19 will be-
 (A) 2, 9, 8 (B) 2, 8, 9 (C) 2, 8, 8, 1 (D) 2, 10, 7
15. Aqueous solution of sodium chloride turns-
 (A) Red litmus blue
 (B) Blue litmus red
 (C) Red litmus orange
 (D) Not change the colour of either red or blue litmus.
16. Two elements showing similar properties due to same number of valence electrons are-
 (A) Ca and Ga (B) S and O (C) C and Cl (D) Si and S
17. In the reaction-

$$\text{Zn} + \text{FeSO}_4 \longrightarrow \text{ZnSO}_4 + \text{Fe}$$
 (A) Zn gets oxidised (B) Zn is oxidising agent
 (C) Fe gets oxidised (D) Zn and Fe both get oxidised
18. Froath floatation process for the concentration of ores is an example of the practical application of-
 (A) Coagulation (B) Absorption (C) Adsorption (D) Sedimentation
19. A metal which does not liberate hydrogen gas to react acids-
 (A) Cu (B) Fe (C) Mn (D) Zn
20. Identify A and B in the following reaction-

$$4\text{NH}_3 + 3\text{O}_2 \longrightarrow \text{A} + 6\text{H}_2\text{O}$$

$$\text{A} + \text{O}_2 \longrightarrow \text{B}$$
 (A) NO and N_2 (B) NO and H_2O (C) H_2O and NO (D) N_2 and NO
21. When KNO_3 is dissolved in water, heat is absorbed. If the temperature of the reaction is raised then according to Le-Chatelier's Principle solubility of KNO_3 will-
 (A) Decrease (B) Increase (C) Remain the same (D) Not be predicted
22. Identify the type of reaction occurring between ethene and hydrogen-
 (A) Oxidation (B) Dehydration (C) Addition (D) Substitution

23. The maximum number of covalent bonds by which the two carbon atoms can be bonded to each other are-
- (A) Four (B) Two (C) Three (D) No fixed number
24. Which of the following ion has smallest ionic radius-
- (A) C^{4-} (B) F^{-} (C) N^{3-} (D) O^{2-}
25. Total number of atoms in 44g of CO_2 is-
- (A) 6.02×10^{23} (B) 6.02×10^{24} (C) 1.806×10^{24} (D) 18.06×10^{22}
26. A compound has empirical formula CH_2 . To which hydrocarbon series does it belong-
- (A) Alkane (B) Cycloalkane (C) Alkyne (D) None of these
27. Which of the following diseases is not caused by virus-
- (A) Measles (B) Polio (C) Whooping cough (D) Rabies
28. Which of the following is essential for clotting of blood-
- (A) Red Blood Corpuscles (B) White Blood Corpuscles
(C) Lymph (D) Blood platelets
29. Spinal cord is related to-
- (A) Reproductive System (B) Excretory System
(C) Nervous System (D) Respiratory System
30. The type of joint found in knee is also found in which of the following-
- (A) Elbow (B) Shoulders (C) Vertebrae (D) Skull
31. Ureotelic animals are those that eliminate the nitrogenous waste predominantly in the form of –
- (A) Uric Acid (B) Ammonia (C) Amino Acid (D) Urea
32. Which one of the following is a Primary Consumer of any food chain
- (A) Carnivore (B) Herbivore (C) Saprophyte (D) Both (B) and (C)
33. Which one of the following is not a modification of leaf-
- (A) Pitcher of a pitcher plant (B) Bulb of Onion
(C) Bladder of Utricularia (D) Leaf spines of Asparagus
34. Insulin is a hormone. Chemically it is a-
- (A) Protein (B) Carbohydrate (C) Fat (D) Steroid
35. Which one of the following is commonly known as malarial parasite and causes malaria in human-
- (A) Plasmodium (B) Paramoecium (C) Anopheles (D) Amoeba
36. Which of the following organ is not involved in excretion-
- (A) Lungs (B) Liver (C) Skin (D) Stomach
37. Which hormone is helping in cell division-
- (A) Abscisic Acid (B) Cytokinin (C) Ethylene (D) Gibberalins
38. Which is a worm blooded animal-
- (A) Pigeon (B) Frog
(C) Turtle (D) Sea Horse (Hippocampus)
39. The Prokaryotic cell does not contain-
- (A) Chromosomes (B) Mitochondria
(C) Plasma membrane (D) Ribosome

40. Which one of the following is the main organ for absorption of food in human being-
 (A) Large Intestine (B) Liver (C) Stomach (D) Small intestine
41. Third battle of Panipat-
 (A) 1526 (B) 1556 (C) 1770 (D) 1761
42. Indian National congress founded by A. O. Hume-
 (A) 1885 (B) 1886 (C) 1887 (D) 1888
43. What was the original name of Mumtaz Mahal?
 (A) Arjumand Bano Begum (B) Raziya Begum
 (C) Gulbadan Begum (D) Roshan Ara Begum
44. During the invasion on India which Greek intellect accompanied Alexander?
 (A) Herodotus (B) Strabo (C) Nearchas (D) Arian
45. The beginning of Industrial revolution in western countries started in-
 (A) America (B) Russia (C) France (D) England
46. Kanchipuram-
 (A) Capital of Cholas (B) Capital of Pallavas
 (C) Capital of Chalukyas (D) Capital of Pandyas
47. First newspaper published in India was-
 (A) Om Prakash (B) Sambaddha kaumudi
 (C) Rast-Goftar (D) Bengal Gazzet
48. The Founder of Judaism was-
 (A) Abraham (B) Moses (C) Zolwastra (D) Augustus
49. When did the war between India & china take place?
 (A) 1960 (B) 1961 (C) 1962 (D) 1963
50. What was Bastile?
 (A) Biggest jail of france (B) Biggest gym of france
 (C) Biggest theatre of france (D) Biggest garden of france
51. Also known as "Frontier Gandhi."
 (A) Abul Kalam Azad (B) Abdul Gaffar Khan
 (C) Shaukat Ali (D) Nasir Ali
52. The partition of Bengal-
 (A) 1920 (B) 1907 (C) 1905 (D) 1919
53. The founder of the Banaras Hindu University-
 (A) Dr. Radhakrishan (B) Mahatma Gandhi
 (C) Madan Mohan Malviya (D) Indira Gandhi
54. When was the Quit India movement started?
 (A) 1942 (B) 1943 (C) 1945 (D) 1946
55. Wrote, "Vande Mataram" –
 (A) Ravindra Nath Tagore (B) Sharatchandra
 (C) Bankim Chandra Chatterji (D) Girish Chandra Chatterji
56. Who was the first Indian woman to reach the highest peak?
 (A) Bachendri Pal (B) Malavath Purna (C) Harshita Sumitra (D) Dicky Dalma

57. Nanda Devi bio-reserve is located in-
 (A) Uttaranchal (B) Delhi (C) Punjab (D) Orissa
58. Rainfall occurs during winter in North-Western part of India due to-
 (A) Cyclonic Depression (B) Western disturbance
 (C) Retreating Monsoon (D) South west Monsoon
59. Tropic of cancer does not pass through-
 (A) Rajasthan (B) Tripura (C) Jharkhand (D) Bihar
60. Which is the brightest planet-
 (A) Mercury (B) Venus (C) Jupiter (D) Sun
61. The longest day, 23rd September will be on-
 (A) Equator (B) $23\frac{1}{2}^{\circ}$ Northern Latitude
 (C) Tropic of Capricorn (D) 50° Southern Latitude
62. As we move to higher altitude, the air becomes-
 (A) Light (B) Dense (C) Dry (D) Moist
63. On earth's orbit surface, the earth's axis is tilted at-
 (A) 90° (B) $23\frac{1}{2}^{\circ}$ (C) 0° (D) $66\frac{1}{2}^{\circ}$
64. The biggest island of world is-
 (A) New Guyana (B) Borneo (C) Greenland (D) Sumatra
65. The capital of western Australia is-
 (A) Sydney (B) Canberra (C) Melbourne (D) Perth
66. The highest peak of Africa is-
 (A) Nyasa (B) Kilimanjaro (C) Kenya (D) Elgon
67. The currency of Germany is-
 (A) Mark (B) Frank (C) Crone (D) Drachma
68. The famous and the largest lake along the Indian Eastern coastal plain is-
 (A) Pulikat lake (B) Chilka lake (C) Sambhar lake (D) Wular lake
69. Which is the most dominant type of vegetation in India is-
 (A) Tropical Evergreen forest (B) Tropical Deciduous forest
 (C) Tropical Desert Forest (D) Tidal forest
70. Which is the smallest continent in the world?
 (A) Asia (B) Australia (C) Africa (D) South America
71. "MNREGA" is referred to-
 (A) Right to information (B) Right to Education
 (C) Right to work (D) Right to protection of life
72. Which will be a feature of the developing country ?
 (A) Agriculture as the main occupation (B) Mass Poverty
 (C) Mass illiteracy (D) High technological development
73. According to the census of 2011, the population of India on 1st march 2011 was-
 (A) 121.05 Crore (B) 100.2 Crore (C) 99.00 Crore (D) 98.00 Crore

74. The Headquarter of world Bank is-
 (A) Geneva (B) Newyork (C) London (D) Washington D.C.
75. When was Universal Human Rights day declared-
 (A) 1st October 2001 (B) 10th December 1948
 (C) 1st march 1950 (D) 1st April 2000
76. Who was the first secretary General of U.N.O.-
 (A) Trygve lie (B) Uthant (C) Dr. Kurt Waldheim (D) Kofi Annan
77. The templetown of Rameshwaram in Tamilnadu related to a great person-
 (A) Dr. S. Radhakrishan (B) Shri R. Venkatraman
 (C) Dr. A.P.J. Abdul Kalam (D) Dr. R. Chidambaram
78. Who is the author of "Log Walk to Freedom"?
 (A) Nelson Mandela (B) Levy Patrick (C) Robert Mugabe (D) Sam Nujomo
79. Which fundamental right was abolished by the 44th amendment act in December 1978?
 (A) Right to Freedom (B) Right to Property
 (C) Right against exploitation (D) Right to equality
80. Who was the first prime-minister of Independent India?
 (A) Pt. Jawaharlal Nehru (B) Lal Bahadur Shastri
 (C) Indira Gandhi (D) Mahatma Gandhi
81. One Rational number between $\frac{1}{5}$ and $\frac{1}{4}$ is-
 (A) $\frac{18}{100}$ (B) $\frac{22}{100}$ (C) $\frac{26}{100}$ (D) $\frac{27}{100}$
82. If $A : B = 2 : 3$, $B : C = 4 : 5$ and $C : D = 6 : 7$ then the value of $A : D$ will be-
 (A) $\frac{2}{7}$ (B) $\frac{9}{7}$ (C) $\frac{7}{9}$ (D) $\frac{16}{35}$
83. The mean of eight number is 6. If each number is multiplied by 2, the new mean will be-
 (A) 3 (B) 6 (C) 12 (D) 96
84. The probability to select a prime number from the numbers 3, 4, 5, 6,25 will be-
 (A) $\frac{7}{23}$ (B) $\frac{8}{23}$ (C) $\frac{9}{23}$ (D) $\frac{10}{23}$
85. The total number of two digit number which are divisible by three will be-
 (A) 30 (B) 31 (C) 32 (D) 33
86. Marks secured by a student in various subject are 25, 26, 27, 28 and 29. What does the mark '27' denotes?
 (A) Mode (B) Mode and median
 (C) Mean and median (D) Mean, median and mode
87. The sum of 'n' terms of series $\left(1 - \frac{1}{n}\right) + \left(1 - \frac{2}{n}\right) + \left(1 - \frac{3}{n}\right) + \dots$ will be-
 (A) $\frac{1}{n}(n+1)$ (B) $\frac{1}{n}(n-1)$ (C) $\frac{1}{2}(n+1)$ (D) $\frac{1}{2}(n-1)$
88. If $x + y = 7$ and $3x - 2y = 11$. Then the value of x will be-
 (A) 5 (B) 6 (C) 7 (D) 8

89. If $x^a = y, y^b = z, z^c = x$ then the correct statement will be-
 (A) $a \cdot b \cdot c = 1$ (B) $a \cdot b \cdot c = 0$ (C) $a + b + c = 1$ (D) $a + b + c = 0$
90. Number of axis of symmetry in the following figure is-
 (A) 2 (B) 4
 (C) 1 (D) 0



91. If highest common factor of $x^2 + 3x + 2$ and $x^2 + 5x + 6$ is $x + a$, then value of 'a' will be-
 (A) 1 (B) 2 (C) 3 (D) 6

92. The value of $\sqrt{10 + \sqrt{25 + \sqrt{108 + \sqrt{154 + \sqrt{225}}}}}$ will be-

(A) 4 (B) 6 (C) 8 (D) 10

93. Point on the X axis which is equidistant from the point (0,0) and (2, 0) is-
 (A) (0, 1) (B) (1, 1) (C) (1, 0) (D) (0, 2)

94. If $3y - 2x = 4$ and $4y - px = 2$ are perpendicular to each other the value of p will be-

(A) $\frac{3}{2}$ (B) $\frac{8}{3}$ (C) 6 (D) -6

95. Radii of three solid spheres are 3 cm, 4 cm and 5 cm respectively. They are melted and converted in to a bigger solid sphere. The radius of the new sphere will be-

(A) 12 cm (B) 9 cm (C) 8 cm (D) 6 cm

96. The perimeter of a right angles triangle is 24 cm. If the hypotenuse is 10 cm. Then area of this triangle will be-

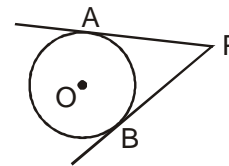
(A) 20 cm^2 (B) 22 cm^2 (C) 24 cm^2 (D) 26 cm^2

97. In the given figure

PB = 24 cm OP = 25 cm, PA and PB are tangents of the circle.

The length of PA and OB will be-

(A) 24 cm, 7 cm (B) 25 cm, 7 cm
 (C) 24 cm, 13 cm (D) 25 cm, 12 cm

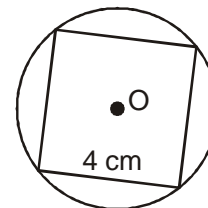


98. The length of minute needle of a watch is 7 cm. The area swept by it during 9:10 to 9:25 will be-

(A) 154 cm^2 (B) 77 cm^2 (C) $\frac{77}{2} \text{ cm}^2$ (D) $\frac{77}{4} \text{ cm}^2$

99. The square of side 4 cm. is inscribed the circle. The area of the circle will be-

(A) $2\pi \text{ cm}^2$ (B) $8\pi \text{ cm}^2$
 (C) $4\pi \text{ cm}^2$ (D) $\pi \text{ cm}^2$



100. If $\tan \theta = \frac{4}{5}$ then the value of $\frac{5 \sin \theta - 3 \cos \theta}{5 \sin \theta + 3 \cos \theta}$ will be-

(A) $\frac{5}{7}$ (B) $\frac{4}{7}$ (C) $\frac{9}{7}$ (D) $\frac{1}{7}$

ANSWERS

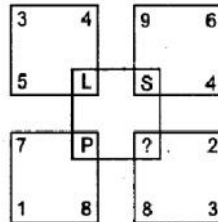
- | | | | | |
|---------|---------|---------|---------|----------|
| 1. (B) | 2. (A) | 3. (C) | 4. (D) | 5. (D) |
| 6. (C) | 7. (D) | 8. (B) | 9. (A) | 10. (C) |
| 11. (D) | 12. (C) | 13. (D) | 14. (C) | 15. (D) |
| 16. (B) | 17. (A) | 18. (C) | 19. (A) | 20. (D) |
| 21. (B) | 22. (C) | 23. (C) | 24.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

Delhi: 1B, Block GG1, Vikaspuri, New Delhi-110018.

Bhilai: 157, New Civic Centre, Bhilai, Durg (C.G.). Ph. No. 0788 - 6454505

MENTAL ABILITY

- Find the next number in the sequence 0, 2, 24, 252, _____.
 (A) 620 (B) 1040 (C) 3120 (D) 5430
- Find the next number in the sequence 0, 6, 24, 60, 120, _____.
 (A) 180 (B) 210 (C) 240 (D) 360
- Find the letter to be placed in place of '?' in the given figure.



- (A) M (B) N (C) Q (D) R
- Find the appropriate number for the blank space 2, 10, 26, _____, 242
 (A) 80 (B) 81 (C) 82 (D) 84

Directions (Q. No 5 to 7): Find the missing term in each of the following questions.

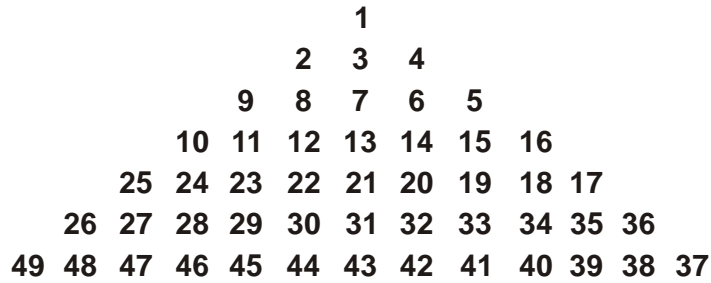
- (A) (B) (C) (D)

- $\frac{E}{I} : \frac{8}{4} :: \frac{J}{N} : ?$
 (A) $\frac{13}{9}$ (B) $\frac{14}{9}$ (C) $\frac{13}{7}$ (D) $\frac{17}{9}$
- A, D, I, P, ?
 (A) W (B) X (C) V (D) Y

Directions (Q. No. 8 to 9): If A = 1, B = 2, C = 3,, Z = 26 then

- Find the group of letters which makes the least total among the alternative.
 (A) DKA (B) FHY (C) ODX (D) VTM
- Find the group of letters which make the highest total among alternatives.
 (A) PLOT (B) PLAN (C) PLAY (D) PLUS
- If A = 26, SUN = 27 then CAT = ?
 (A) 24 (B) 27 (C) 57 (D) 58

Directions (Q. No. 11 to 15): The following questions are based on arrangement of numbers in the form of pyramid. In each question there is some relationship between the two numbers on the left of the (: :). The same relationship exists between the two terms in the right, of which one is missing. Find the missing term from the given alternatives.



11. 132220 : 211412 :: 222931 : (?)
 (A) 304345 (B) 302123 (C) 442931 (D) 312022
12. 2 8 7 3 : 13 21 20 14 :: 10 24 23 11 : (?)
 (A) 29 28 24 23 (B) 28 27 47 46 (C) 25 27 28 24 (D) 29 45 44 30
13. 241214 : 752119 :: 14163234 : (?)
 (A) 19174139 (B) 20184240 (C) 21194341 (D) 20224244
14. 25 22 44 47 : 23 20 42 45 :: 11 14 32 29 : (?)
 (A) 13 16 34 31 (B) 24 21 43 41 (C) 24 21 43 46 (D) 13 10 24 21
15. 82224 : 133133 :: 62022 : (?)
 (A) 91221 (B) 81312 (C) 153335 (D) 51921
16. Which of the given alternative is the mirror image of REASON if the mirror is placed below the word.
 (A) RƎAƎƆOИ (B) RƎAƎƆOИ (C) RƎAƎƆOИ (D) RƎAƎƆOИ
17. What is the mirror image of b3k4S ?
 (A) ƎƆKƎd (B) ƎƆKƎd (C) ƎƆKƎd (D) ƎƆKƎb
18. If $27 * 3 = 243$
 $5 * 4 = 80$
 Then what is the value of $3 * 7$
 (A) 84 (B) 147 (C) 63 (D) 23

Directions (Q. No. 19 to 20): Arrange the following words in the alphabetical order of English dictionary and identify the one that comes in the middle.

19. (1) Dialogue (2) Diabetic (3) Diagonal (4) Diaphragm (5) Dialect
 (A) 2 (B) 3 (C) 4 (D) 6
20. (1) General (2) Gesture (3) Gental (4) Genuine (5) Generous
 (A) 2 (B) 3 (C) 4 (D) 5

Directions (Q. No. 21 to 23): The following questions are based on the given matrix. The value of each letter is the product of its row and column number. Eg. the value of M is $2 \times 3 = 6$.

| | | | | | |
|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 |
| 0 | B | O | J | C | P |
| 1 | E | N | H | I | D |
| 2 | G | R | A | M | V |
| 3 | F | S | T | L | Z |
| 4 | W | X | Y | U | K |

21. Find the group of letters which make the least total among the alternatives.
 (A) DKA (B) FHY (C) ODX (D) VTM
22. What is the total of GREAT?
 (A) 8 (B) 10 (C) 12 (D) 14
23. Find the group of letters which make the highest total among the alternatives given.
 (A) PLOT (B) PLAN (C) PLAY (D) PLUS
24. In a certain code language BOARD is written as EQBNC. How will the word CLIMB be written in that language?
 (A) CLJKD (B) DKJLF (C) DNHMB (D) FNJRO
25. A person earns three rupees on the first day. If he earns double every next day, what will be his earning at 10th day.
 (A) Rs. 768 (B) Rs. 1536 (C) Rs. 3072 (D) Rs. 30

Directions (Q. No. 26 to 30): In the following questions the letters in column – I are coded in the form of numbers which are written in column – II, but the order of numerals is different. Study the code of letters and find out the correct answer for each question from given alternatives

Column – I

LEG
 MNG
 ENL
 LGS

Column – II

432
 358
 248
 734

26. What is the code of LSG?
 (A) 743 (B) 438 (C) 473 (D) 347
27. What is the code of the word NLEM?
 (A) 4832 (B) 8425 (C) 8437 (D) 2534
28. What is the code of word MSN?
 (A) 578 (B) 634 (C) 583 (D) 235
29. What is the code of the word LEM ?
 (A) 328 (B) 625 (C) 524 (D) 425
30. Code for word GEN will be?
 (A) 435 (B) 642 (C) 328 (D) 825
31. There are deers and peacocks in a zoo. By counting heads they are 80. The number of their legs is 200. How many peacocks are there?
 (A) 20 (B) 30 (C) 60 (D) 50

Directions (Q. No. 32 to 35): The questions are based on the following information.

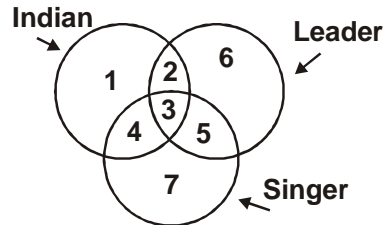
Five students P, Q, R, S and T study in a class. Of these

- (i) P and Q study physics and chemistry
- (ii) R and Q study physics and mathematics
- (iii) S and P study biology and chemistry
- (iv) T and Q study anthropology and civics
- (v) T and S study chemistry and mathematics

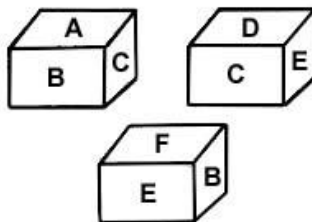
32. Who among the students studies maximum number of subjects?
 (A) T (B) S (C) Q (D) P

33. Who among the students studies minimum number of subjects?
 (A) T (B) S (C) P (D) R
34. Who among the students studies only four subjects?
 (A) R (B) T (C) S (D) P
35. Which of the following pair studies chemistry and civics?
 (A) P and S (B) Q and R (C) Q and T (D) R and S

Directions (Q. No. 36 to 40): Study the following figure carefully and answer the given questions



36. Which region represents Indian leaders who are not singers?
 (A) 2 (B) 3 (C) 4 (D) 5
37. Which region represents leaders who are neither singers nor Indian?
 (A) 2 (B) 3 (C) 6 (D) 7
38. Which region represents Indian singers who are not leaders?
 (A) 1 (B) 2 (C) 3 (D) 4
39. Which region represents Indian leaders who are singer?
 (A) 2 (B) 3 (C) 4 (D) 5
40. Which region represents Singers who are neither Indian nor leaders?
 (A) 2 (B) 4 (C) 6 (D) 7
41. The six faces of a dice have been marked with A, B, C, D, E and F respectively. The three positions of it are shown below-



Find the alphabet opposite to A?

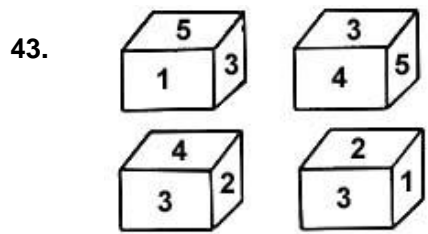
- (A) C (B) D (C) E (D) B

Directions (Q. No. 42 to 43): Four positions of a dice are given below.

- 42.

What number is opposite to 3?

- (A) 2 (B) 3 (C) 4 (D) 6

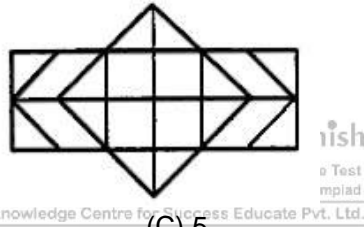


Which number is opposite to 4?

- (A) 6 (B) 5 (C) 2 (D) 1

Directions (Q. No. 44 to 45): Five books are placed on the table. Hindi book is placed above the English book and the Mathematics book is placed below the Science book. English book is above the Science book and Drawing book is below the Mathematics book.

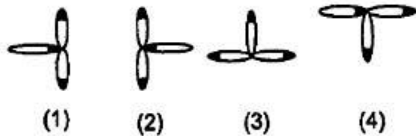
44. The book between Hindi and Science book is
 (A) Drawing (B) Mathematics (C) English (D) None of these
45. Which book is at the bottom?
 (A) Hindi (B) Drawing (C) Mathematics (D) Science
46. At 12 o'clock minute hand points east. At 4:30, in which direction the hour hand will point?
 (A) North – East (B) South – East (C) South (D) South – West
47. What will be the number of hexagons in the given figure?



- (A) 2 (B) 4 (C) 5 (D) 6

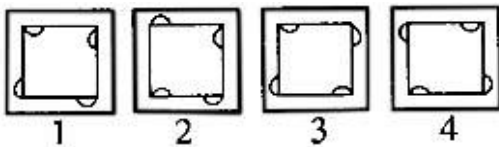
Directions (Q. No. 48 to 50): In each of the following questions four figures are given. One of these figures does not fit with the rest of the figures. Find out the serial number of that figure.

48. Find the odd one out in the pictures given below.



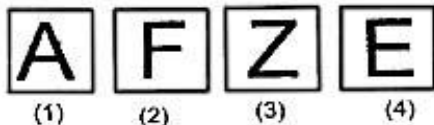
- (A) 1 (B) 2 (C) 3 (D) 4

49. Find the odd one out in the pictures given below.



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

50. Find odd one out in the pictures given below.



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

LANGUAGE COMPREHENSIVE (LCT)

Instructions for (Q. No. 51-52):

The following five sentences come from a paragraph. The first and last sentence are given. Choose the order in which the three sentences (PQR) should appear to complete the paragraph.

51. S1. Jawaharlal Nehru was born in Allahabad on 14 Nov 1889.
S2.
S3.
S4.
S5. He died on 27 may 1964.
P. Nehru met Mahatma Gandhi in February 1920.
Q. In 1905 he was sent to London to study at a school called Haroow.
R. He became the first Prime Minister of Independent India on 15 August 1947.

Choose from the options below

- (A) POR (B) QPR (C) PRQ (D) RQP

52. S1. My tooth began to hurt yesterday.
S2.
S3.
S4.
S5. My tooth felt a lot better.
P. The dentist examined my hurting tooth.
Q. The dentist fixed my tooth.
R. My father took me to the dentist.

Choose from the options below

- (A) PQR (B) QPR (C) RPQ (D) PRQ

Instructions for (Q. No. 53-55):

The following questions have the second sentence missing. Choose the appropriate sentence from the given options to complete it:

53. 1. Mannu and his father climbed a boat and went to the other side of the lake.
2.
3. "I've caught a fish", shouted mannu
(A) They went to the market and searched for good fish for their lunch.
(B) His dad went for fishing and Mannu went to his aunt's house.
(C) Mannu prepared the fishing pole and dropped the line in the water.
(D) Mannu and his father returned home in the evening.



54. 1. The race for which Singh is best remembered is his fourth-place finish in the 400 metres final at the 1960 Olympic Games.
2.
3. Singh's fourth-place time of 45.73 became the Indian national record and held for almost 40 years.
- (A) He was the only Indian male athlete to win an individual athletics gold medal at a Commonwealth Games until Vikas Gowda won the discus gold medal in the 2014.
- (B) He was awarded the Padmashree, India's fourth-highest civilian honour, in recognition of his sporting achievements.
- (C) He led the race till the 200 meters mark before easing off, allowing others to surpass him.
- (D) He represented India in the 1956 Summer Olympics in Melbourne, the 1960 Summer Olympics in Rome and the 1964 Summer Olympics in Tokyo.
55. 1. Sage Yajnavalkya decided to divide his property amongst his two wives Maitreyi and Katyaayani as he wished to leave for the forest.
2.
3. The sage replied that through wealth one can become one amongst the many wealthy but it was knowledge which made one immortal so she declined the property.
- (A) Maitreyi took the property and went to the neighbouring country and lived their happily.
- (B) Maitreyi and katyaayani declined the property and accompanied the sage to the forest.
- (C) Maitreyi asked the sage if she could become immortal through this wealth.
- (D) Katyaayani refused to take half of the property and demanded the complete property from the sage.

Instructions for (Q. No. 56-60):

Choose the word which best fills the blank from the four options given below:

56. They always him for his south Indian accent.
- (A) pull (B) tease (C) chase (D) angry
57. The bus is quite high.
- (A) fair (B) charge (C) fare (D) cost
58. Our school gardener went to the to buy a few pots of flowering plants.
- (A) orchard (B) nursery (C) estate (D) plantation
59. Make sure you read all the Carefully before setting up the device.
- (A) questions (B) instructions (C) bills (D) orders
60. The students get a monthly Which usually consists of writing a report.
- (A) Assignment (B) Report (C) Grade (D) Points

Instructions for (Q. No. 61-65):

Choose the correct meanings for the given idioms/phrases:

61. Lose heart:
(A) Be angry (B) Be discouraged (C) Be sad (D) Be desperate
62. Backstair influence:
(A) Political influence (B) Secret and unfair influence
(C) Fair and proper influence (D) Religious influence
63. Blow one’s own trumpet:
(A) Praise others (B) Praise oneself (C) Flatter (D) Admonish others
64. Held over:
(A) Stopped (B) Postponed (C) Dropped (D) Cancelled
65. A snake in the grass:
(A) An unexpected misfortune (B) An unforeseen danger
(C) A treacherous persons (D) A secret enemy

Instructions for (Q. No. 66-68):

Find out the alternatives which are most opposite in meanings to the words given.

66. Tentative:
(A) Definite (B) Universal (C) Preliminary (D) Outdated
67. Lend:
(A) Pawn (B) Hire (C) Borrow (D) Cheat
68. Shallow:
(A) Deep (B) Definite (C) Hollow (D) Hidden

Instructions for (Q. No. 69-70):

Select most appropriate options to fill in the blank from the following alternatives given below:

69. If I has had enough money, I a laptop.
(A) Would buy (B) Had bought (C) Would buy (D) Would have bought
70. an Indian ?
(A) Is you (B) You are (C) Are you (D) Do you be

Instructions for (Q. No. 71-72):

Choose the alternative which can be substituted for :

71. Sound of apes:
(A) Moan (B) Bray (C) Gibber (D) Clan
72. Words inscribed on a tomb:
(A) Epilogue (B) Epitaph (C) Epitome (D) Episode

Instructions for (Q. No. 73-80):

In the following passage there are some numbered blanks. Fill in the blanks by selecting the most appropriate word from the options:

Today, fountain pens are often treated as luxury goods 73 sometimes as status symbols. Fountain pens may serve as 74 everyday writing instrument, much like the common ballpoint pen. 75 quality steel and gold pens are even available inexpensively today. 76 France, in particular, the use of fountain pens is 77 spread.

Many users often state that once they start using 78 pens, it becomes uncomfortable to use ball point pen due to the79..... motor effort needed. In some countries, fountain pens are 80 in lower school grades and are believed to teach children better control over writing.

73. (A) and (B) by (C) on (D) to
74. (A) an (B) in (C) a (D) and
75. (A) big (B) small (C) good (D) large
76. (A) of (B) at (C) when (D) in
77. (A) well (B) slow (C) good (D) fast
78. (A) ball point (B) imported (C) local (D) fountain
79. (A) extra (B) little (C) most (D) few
80. (A) easily (B) compulsory (C) provide (D) compulsorily

Instructions for (Q. No. 73-80):

Read the passage carefully and choose the most appropriate options from the alternatives given:

William Henry Gates III (Bill) was born on October 28, 1955, Seattle, Washington. Bill was the second of the three children in an upper-middle class family. He enjoyed playing games and loved to read, Bill became bored in public school so his family sent to Lakeside School, where he excelled in math and science and did well in drama and English.

Gates became interested in computer programming when he was 13. At Lakeside, Bill met Paul Allen, who shared his interest in computers. At age 17, Gates and Allen were paid \$ 20,000 for a programme called Traf-O-Data that was used to count traffic.

Bill Gates scored 1590 out 1600 on the SAT and was accepted by Harvard University. Meanwhile, Paul Allen dropped out of Washington College to work on computers at Honeywell Corporation and convinced Gates to drop out of Harvard and join him in starting a new software company in Albuquerque, New Mexico. They called it Micro-soft initially and soon changed it to Microsoft, and moved it to Bellevue, Washington.

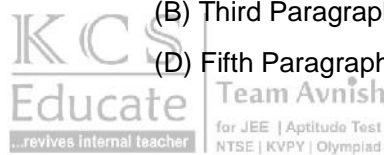
Microsoft grew quickly from 25 employees in 1978 to over 90,000 today. Over the years, Microsoft developed many new technologies and some of the world's most popular software and products such as Word and Power Point.

Bill Gates was one of the richest men in the world. In 2012, his \$ 61 billion dollars in assets made him the world's Second richest man according to Forbes magazine.

81. Which of the sentences is not about Bill Gates?
(A) He was born in Seattle, Washington. (B) He was the second of three children.
(C) He enjoyed public school. (D) He excelled in math and Science.

82. In what ways were Bill Gates and Paul Allen not alike?
- (A) They both went to the same college
 (B) They both likes computers
 (C) They both went to the same school
 (D) They dropped out of the college
83. What is Traf-O-Data?
- (A) Programme to count people
 (B) Programme for counting traffic
 (C) Programme for MS word
 (D) Programme for counting money
84. What was the percentage obtained by Gates to get admission in Harvard University?
- (A) 98.39 (B) 99.83
 (C) 99.38 (D) 93.89
85. The answer to the question, "How rich is Bill Gates?" is given in:
- (A) Second paragraph (B) Third Paragraph
 (C) Fourth Paragraph (D) Fifth Paragraph

Instructions for (Q. No. 86-90):



Read the passage carefully and choose the most appropriate options from the alternatives given:

Potatoes are the fourth on the list of the world's food staples after wheat, com and rice. Americans consume about 140 pounds of potatoes per person every year while Europeans eat twice as many.

On August 24, 1853, at Moon Lake Lodge in Saratoga, New York, a native American chef George Crum created the first potato chips. Once when a diner complained that the French fries were too thick, he got angry and sliced the potatoes as thinly as possible making them too thin and crispy to eat with a fork, The diner loved them and thus potato chips were born. In the United Kingdom and Ireland crisps are what are called potato chips in United States. Chips refer to French fries in United Kingdom and Ireland. About 27 pounds of potato chips are produced from 100 pounds of potatoes. Americans consume 2-4 billion pounds of potato chips every year and spend more than \$7 billion a year on them.

86. What are potato chips called in UK?
- (A) French fries (B) Chips
 (C) Crisps (D) Potatoes
87. When and where were potato chips born?
- (A) August 14, 1853 in New York (B) August 24, 1853 in France
 (C) August 24, 1853 in New York (D) August 24, 1883 in France

88. What does the word consume mean in the first paragraph?
- (A) Play (B) Grow
(C) Eat (D) Store
89. According to the passage how many potatoes do the Europeans consume per person every year?
- (A) About 180 pounds (B) About 242 pounds
(C) About 240 pounds (D) About 280 pounds
90. One of the phrases is not true about potato chips:
- (A) Eaten with fork (B) Made of potatoes
(C) Thin and crispy (D) Called crisps in United Kingdom



ANSWERS

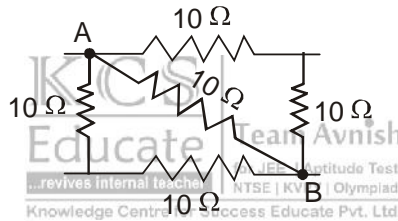
- | | | | | |
|---------|----------|---------|-------------|---------|
| 1. (C) | 2. (B) | 3. (A) | 4. (C) | 5. (A) |
| 6. (A) | 7. (D) | 8. (A) | 9. (D) | 10. (C) |
| 11. (B) | 12. (D) | 13. (A) | 14. (A) | 15. (C) |
| 16. (D) | *17. (A) | 18. (B) | **19. Bonus | 20. (B) |
| 21. (C) | 22. (C) | 23.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

*NOTE – 'k' should be 'K'.

**NOTE – Options are wrong. The correct answer is (5) Dialect

SCHOLASTIC APTITUDE TEST (SAT)

1. Unit of pressure in S.I. system is
 (A) Kelvin (B) Pascal (C) Newton (D) Calorie
2. Temperature of an iron block is 140°F . Its temperature in Celsius scale will be-
 (A) 100°C (B) 60°C (C) 32°C (D) 140°C
3. A drop of water is always spherical due to-
 (A) Viscosity (B) Surface tension
 (C) Atmospheric pressure (D) Gravity
4. Speed of super-sonic Aircraft is-
 (A) Below speed of sound (B) Equal to speed of sound
 (C) More than speed of sound (D) Equal to speed of light
5. The escape velocity from earth is 11 km/sec. The escape velocity from a planet having equal density and double radius of earth is-
 (A) 15.56 km/sec (B) 22 km/sec (C) 5.5 km/sec (D) 11 km/sec
6. The resultant resistance between A and B in the following circuit is-



- (A) $10\ \Omega$ (B) $5\ \Omega$ (C) $20\ \Omega$ (D) $40\ \Omega$
7.

Magnetic field

Electron

An electron enters a magnetic field at right angle to it as shown in figure. The direction of the force acting on the electron will be
 (A) To the right (B) To the left
 (C) Coming out of paper at right angle (D) Going into the paper at right angle
 8. Which of the following correctly represents graphical relation between the angle of incidence i and the angle of reflection r ?
 (A) (B) (C) (D)
 9. Which of the following lenses would you prefer to use while reading small letters found in a dictionary-
 (A) Convex lens of focal length 50cm (B) Concave lens of focal length 50 cm
 (C) Convex lens of focal length 5cm (D) Convex lens of focal length 5cm

10. Length of a conducting wire is increased by 100%. The change in the resistance of the wire will be-
- (A) 50% (B) 100% (C) 200% (D) 300%
11. Three light bulbs of 40W, 60W and 100W are connected in series with 220 volt source. Which of the bulbs will grow brightest?
- (A) 60W (B) 40W (C) 100W (D) All with same brightness
12. The value of gravitational acceleration g at the centre of the earth is-
- (A) Infinite (B) 9.8 m/s^2 (C) 32.2 m/s^2 (D) zero
13. Which pair of atomic number represent S-block elements-
- (A) 7, 15 (B) 6, 14 (C) 9, 17 (D) 4, 12
14. Valency of carbon in CO_3^{2-} ion is-
- (A) 2 (B) 3 (C) 4 (D) 5
15. The electronic configuration of two elements X and Y are given below-
- X = 2, 8, 8, 2
Y = 2, 8, 7
- The formula of a compound of these two elements is
- (A) XY (B) X Y_2 (C) $\text{X}_2 \text{ Y}$ (D) XY_3
16. The main component of Bio gas is-
- (A) Methane (B) Benzene (C) Ethylene (D) Ethane
17. Which of the following shows the tyndall effect-
- (i) Common salt (ii) milk
(iii) Copper sulphate solution (iv) Starch solution
- (A) (i) and (ii) (B) (ii) and (iv) (C) (iii) and (iv) (D) (ii) and (iii)
18. Which one of the following compound will give addition reaction-
- (A) CH_4 (B) C_2H_6 (C) C_2H_4 (D) C_3H_8
19. Nature of aqueous solution of salt obtained by the reaction of strong acid and strong base is-
- (A) Acidic (B) Basic (C) Neutral (D) Amphoteric
20. Which of the following alloy does not contain zinc metal-
- (A) Gun metal (B) German silver (C) Brass (D) Bronze
21. The functional group of carboxylic acid is-
- (A) $-\text{OH}$ (B) $-\text{CHO}$ (C) $\begin{array}{c} >\text{C} \\ || \\ \text{O} \end{array}$ (D) $\begin{array}{c} -\text{C}-\text{OH} \\ || \\ \text{O} \end{array}$
22. Number of moles in 128 gm of sulphur will be-
- (A) 0.5 (B) 2 (C) 4 (D) 8
23. In the end of manufacturing of cement _____ is mixed with the clinkers-
- (A) Gypsum powder (B) Magnesium powder
(C) Alumina powder (D) None of the above

24. A group of inter connected food chains is called-
- (A) Food cycle (B) Pyramid of energy
(C) Complex food chain (D) Food web
25. Which of the following organ is not related with excretion-
- (A) Lungs (B) Pancreas (C) Liver (D) Skin
26. Parallel venation is found in which of the following leaves
- (A) Lemon (B) Mango (C) Grass (D) Rose
27. Which of the following is not found in the animal cell-
- (A) Plastid (B) Mitochondria (C) Golgi body (D) Endoplasmic reticulum
28. Carbon dioxide transports in the blood through-
- (A) Red blood cells (B) Plasma (C) White blood cells (D) Platelets
29. Which of the following is not an endocrine gland-
- (A) Pituitary gland (B) Thyroid gland (C) Liver (D) Adrenal gland
30. Fibrous connective tissue is-
- (A) Tendon and ligament (B) Blood and lymph
(C) Bone and cartilage (D) None of the above
31. Which of the following is an example of algae-
- (A) Yeast (B) Spirogyra (C) Fern (D) Amoeba
32. Limiting factors for the rate of photosynthesis are-
- (A) Oxygen and water (B) Mineral and salt
(C) Light intensity and temperature (D) Structure of leaf and stem
33. Earthworm is related to which of the following phylum-
- (A) Arthropoda (B) Annelida (C) Echinodermata (D) Mollusca
34. Rickets is caused by the deficiency of which of the following-
- (A) Carbohydrate (B) Vitamin A (C) Vitamin D (D) Protein
35. What will be the ratio of dominant and recessive character inherited in first filial generation of monohybrid cross done by the mendal-
- (A) 3 : 1 (B) 1 : 3 (C) 2 : 3 (D) 3 : 2
36. Period of first world war-
- (A) 1916 to 1919 (B) 1920 to 1922 (C) 1925 to 1935 (D) 1914 to 1918
37. What does satyagraha mean?
- (A) Fight against injustice
(B) Complete independence
(C) Following the path of truth and non-violence
(D) All of the above
38. Who was the khalifa ?
- (A) The political leader of the Islamic world (B) The spiritual head of the Islamic world
(C) The spiritual leader of the whole world (D) The spiritual leader of the Saudi Arabia

39. The Simon commission was greeted on its arrival in India with a famous slogan-
 (A) Come back Simon (B) Welcome back Simon
 (C) Go back Simon (D) Stay here Simon
40. The place where Jallianwala Bagh incident took place-
 (A) Meerut (B) Jhansi (C) Delhi (D) Amritsar
41. Which freedom fighter is known by his newspaper "kesari"?
 (A) Rabindranath Tagore (B) Mukund Das
 (C) Lala Lajpat Rai (D) Bal Gangadhar Tilak
42. Azad Hind sena was established in-
 (A) II world war (B) I world war
 (C) Indo-China border conflict (D) Bangladesh conflict
43. II battle of Panipat was fought between:
 (A) Between Akbar and Hemu (B) Between Babar and Ibrahim Lodhi
 (C) Between Humayun and Bahadurshan (D) Between Akbar and Rajput
44. Who captured the Peacock Throne of emperor Shah Jahan ?
 (A) Timur lung (B) Nadir Shah
 (C) Mahmud Ghajnavi (D) Dara Shikoh
45. Who built Khajuraho temple?
 (A) Solanki dynasty (B) Parmar dynasty
 (C) Chandela dynasty (D) Chouhan dynasty
46. Name the group of islands of India lying in the Bay of Bengal are,
 (A) lakshyadweep (B) Andman-Nicobar dweep
 (C) Maldives (D) Minicoy dweep
47. Which line of axis divides India into two parts?
 (A) The tropic of cancer (B) The tropic of Capricorn
 (C) Equator (D) Greenwich line
48. In which of the forests are the trees with conical shaped leaves found ?
 (A) Evergreen forest (B) Coniferous forest (C) Deciduous forest (D) Tropical rain forest
49. Which is the largest desert in the world?
 (A) Gobi (B) Kalahari (C) Pantagonia (D) Sahara
50. Hirakund Dam is built on the river-
 (A) Chambal (B) Mahanadi (C) Damodar (D) Kaveri
51. Shimla is capital of which state-
 (A) Himachal Pradesh (B) Andhra Pradesh
 (C) Tamil Nadu (D) Madhya Pradesh
52. Which of the following term is used to describe trade between two or more countries-
 (A) Internal trade (B) International trade
 (C) External trade (D) Local trade

53. Water availability per person in India is-
 (A) Decreasing (B) Increasing (C) Stagnant (D) None of the above
54. Silicon valley is located in-
 (A) Bangalore (B) California (C) Uganda (D) Ahmedabad
55. Monsoon arrives in India approximately in-
 (A) Early may (B) Early June (C) Early July (D) Early August
56. The model of fundamental rights had been taken from-
 (A) USA (B) Ireland (C) Canada (D) Great Britain
57. In which year were the fundamental duties added to the constitution-
 (A) 1966 (B) 1976 (C) 1974 (D) 1978
58. Who appoints the chief election commissioner of India-
 (A) Parliament (B) President (C) Prime minister (D) Chief justice
59. How many members are nominated by the president in Lok Sabha ?
 (A) 2 members (B) 3 members (C) 12 members (D) 6 members
60. The judges of the supreme court of India retire at the age of-
 (A) 60 years (B) 64 years (C) 65 years (D) 70 years
61. Which of the following is not a quality of good citizenship-
 (A) Ignorance (B) Good health (C) Education (D) Patriotism
62. How many articles are there in the Indian Constitution?
 (A) 195 (B) 295 (C) 395 (D) 495
63. Who holds the power of judicial review in India?
 (A) Parliament (B) Law minister
 (C) Supreme court and High court (D) Only supreme court
64. Which of the following articles of the Indian constitution deals with the directive principles of state policy?
 (A) Article 26 to 41 (B) Article 31 to 56 (C) Article 41 to 66 (D) Article 36 to 51
65. "Satyameva Jayate" has been taken from-
 (A) Mundak Upanishad (B) Rigveda
 (C) Natya Sutra (D) None of these
66. Which place does India hold in the world regarding the population?
 (A) First (B) Second (C) Third (D) Fourth
67. The duration of first five year plan-
 (A) 1955 to 60 (B) 1962 to 67 (C) 1950 to 56 (D) 1951 to 56
68. White revolution means-
 (A) Dairy product (B) Wheat product (C) Rubber product (D) Pulse product
69. Agmark and ISI mark shows-
 (A) Quality and standard of products (B) Quantity of the product
 (C) Availability of the product (D) None of these

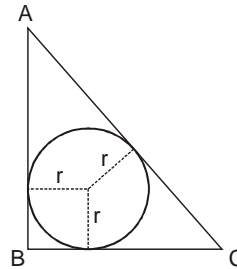
70. Write the full form of PDS?
 (A) Price distribution system (B) Plural distribution system
 (C) Public distribution system (D) Place distribution system
71. Equivalent of $\frac{6}{20}$ is-
 (A) 6% (B) 20% (C) 26% (D) 30%
72. How many surfaces in solid cylinder-
 (A) 1 (B) 2 (C) 3 (D) 4
73. The order of any matrix is 3×2 then no. of element it are-
 (A) 3 (B) 2 (C) 5 (D) 6
74. If $(x - 2)$ is a factor of polynomial $x^3 + 2x^2 - kx + 10$. Then the value of k will be-
 (A) 10 (B) 13 (C) 16 (D) 9
75. From a pack of playing cards all cards whose numbers are multiple of 3 are removed. A card is now drawn at random. Then the probability that the card drawn is an even number is red card-
 (A) $\frac{10}{52}$ (B) $\frac{1}{4}$ (C) $\frac{1}{5}$ (D) $\frac{3}{13}$
76. Median of 4, 5, 10, 6, 7, 14, 9 and 15 will be-
 (A) 6 (B) 7 (C) 8 (D) 9
77. Mean proportion of 64 and 225 will be-
 (A) 120 (B) 90 (C) 60 (D) 30
78. If the points $(-2, -5)$, $(2, -2)$ and $(8, a)$ are collinear then value of a will be-
 (A) $\frac{1}{2}$ (B) $\frac{3}{2}$ (C) $\frac{-5}{2}$ (D) $\frac{5}{2}$
79. If the number 13, 15, 17, 18 and n are arranged in ascending order and their arithmetic mean and median are equal then value of n will be-
 (A) 27 (B) 22 (C) 28 (D) None of these
80. $\log_{10} 1 = ?$
 (A) 0 (B) 10 (C) 100 (D) 1000
81. If in an arithmetic progression sum of first n terms is $2n^2 + 3n$. Its common difference is-
 (A) 6 (B) 3 (C) 2 (D) 4
82. The area of three adjoining faces of cuboid are A, B and C respectively then its volume will be
 (A) ABC (B) \sqrt{ABC} (C) $A^2B^2C^2$ (D) None of these
83. If the radius of circle is π , then its area will be-
 (A) π (B) π^2 (C) π^3 (D) 3π
84. If the co-ordinate of any circle are (3, 4) and the co-ordinate of one ends of its diameter are (5, 3) then co-ordinate of other ends of diameter are-
 (A) (4, 1) (B) (1, 4) (C) (1, 5) (D) (5, 1)

85. The value of $\cos^2 26^\circ + \cos 64^\circ \sin 26^\circ + \frac{\tan 36^\circ}{\cot 54^\circ}$
- (A) 2 (B) 1 (C) 0 (D) None of these

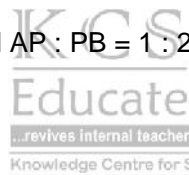
86. $\sqrt[3]{64} = ?$
- (A) 2 (B) 4 (C) 6 (D) 8

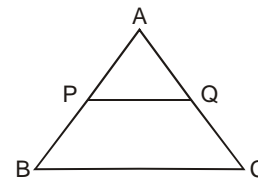
87. The additive inverse of $\frac{2x-3}{3x+5}$ is-
- (A) $\frac{3-2x}{3x+5}$ (B) $\frac{3x+5}{3x-3}$ (C) $\frac{3-2x}{-3x-5}$ (D) $\frac{2x-3}{-3x-5}$

88. In the given figure $\triangle ABC$ is a right angle triangle in which $\angle B = 90^\circ$ and $BC = 6$ cm and $AB = 8$ cm. Then radius of incircle will be-
- (A) 5 cm (B) 4 cm
(C) 3 cm (D) 2 cm

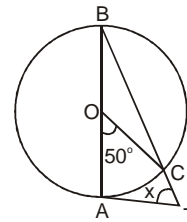


89. In the given figure $PQ \parallel BC$ and $AP : PB = 1 : 2$. Then the ratio of $\triangle APQ$ and $\triangle ABC$ will be-
- (A) 1 : 2 (B) 1 : 4
(C) 1 : 9 (D) 4 : 1


Team Avnish
 for JEE | Aptitude Test
 NTSE | KVPY | Olympiad
 ..revives internal teacher
 Knowledge Centre for Success Educate Pvt. Ltd.



90. In the given figure AB is a diameter of circle and AT is tangent line then value of x will be-
- (A) 65° (B) 50°
(C) 45° (D) 90°



ANSWERS

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

Delhi: 1B, Block GG1, Vikaspuri, New Delhi-110018.

Bhilai: 157, New Civic Centre, Bhilai, Durg (C.G.). Ph. No. 0788 - 6454505

MENTAL ABILITY

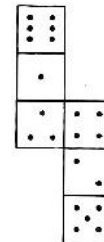
- Preeti scored more than Rahul. Yamuna scored as much as Divya. Lokita scored less than Manju. Rahul scored more than Yamuna. Manju scored less than Divya. Who scored the lowest?
 (A) Manju (B) Yamuna (C) Lokita (D) Rahul
- Nageena is taller than Pushpa, but not as tall as Maneesh. Reena is taller than Namita but not as tall as Pushpa. Who among them is tallest?
 (A) Maneesh (B) Pushpa (C) Namita (D) Reena

3. If for any operation *
 $6 * 3 = 38$, $5 * 7 = 72$, $12 * 5 = 122$
 then $7 * 4 = ?$

- (A) 48 (B) 58 (C) 82 (D) 62
4. Four positions of a dice are shown below. Which digit is on the opposite face of digit 2?

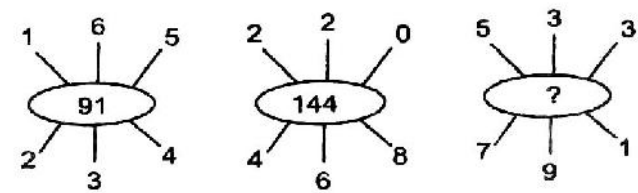


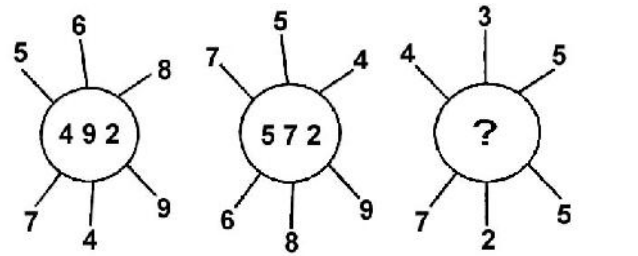
- (A) 3 (B) 4 (C) 5 (D) 6
5. How many dots lie opposite to the face having three dots, when the given figure is folded to form a cube ?
 (A) 2 (B) 4
 (C) 5 (D) 6



Directions (Q. No. 6 to 10): Which number will replace question mark?

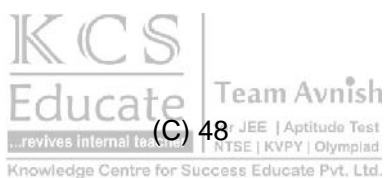
6. (A) 14 (B) 22 (C) 32 (D) 320

7. 
- (A) 320 (B) 174 (C) 262 (D) 132

8. 
- (A) 115 (B) 130 (C) 135 (D) 140

9.

| | | |
|----|---|----|
| 2 | 4 | 0 |
| 1 | 2 | 4 |
| 3 | 1 | 3 |
| 36 | ? | 91 |
- (A) 25 (B) 59 (C) 48 (D) 73



10.

| | | |
|-----|----|---|
| 1 | 2 | 3 |
| 11 | 7 | 5 |
| 120 | 45 | ? |
- (A) 19 (B) 17 (C) 16 (D) 15

Directions (Q. No. 11 to 15):

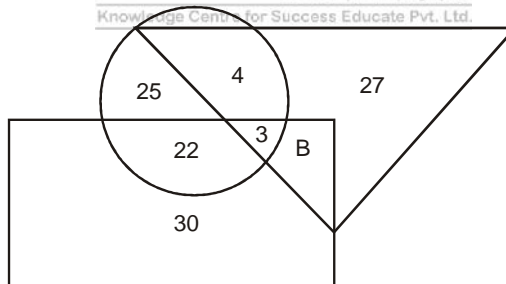
- (i) A cuboid shaped wooden block has 6 cm length, 4 cm breadth and 1 cm height.
(ii) Two faces measuring 4 cm × 1 cm are coloured in black.
(iii) Two faces measuring 6 cm × 1 cm are coloured in red.
(iv) Two faces measuring 6 cm × 4 cm are coloured in green.
(v) The block is divided into 6 equal cubes of 1 cm (from 6 cm side), 4 equal cubes of 1 cm (from 4 cm side).
11. How many cubes having red, green and black colours on atleast one side of the cube will be formed?
(A) 16 (B) 12 (C) 10 (D) 4
12. How many total cube pieces will be formed?
(A) 16 (B) 12 (C) 10 (D) 24

13. How many cubes will have 4 coloured faces and two non-coloured faces?
 (A) 8 (B) 4 (C) 16 (D) 10
14. How many cubes will have green colour on two faces and rest of the 4 faces having no colour?
 (A) 12 (B) 10 (C) 8 (D) 4
15. How many cubes will remain if the cubes having black and red coloured faces are removed ?
 (A) 4 (B) 8 (C) 12 (D) 16

Directions (Q. No. 16 to 20): In each of the following question there is some relationship between two terms of the left side of the sign : : The same relationship exists between the two terms on the right side of the sign : :, in which one term is missing. Find the missing term (?) from the following four alternatives.

16. $3 : 24 :: 8 : ?$
 (A) 256 (B) 509 (C) 504 (D) 510
17. $C : 16 :: F : ?$
 (A) 30 (B) 40 (C) 42 (D) 49
18. South : North West :: West : ?
 (A) South West (B) North East (C) East (D) South
19. Tajmahal : Love :: Jallianwala Bagh : ?
 (A) Amritsar (B) Cruelty (C) General Dwyer (D) Punjab
20. Home : Shelter :: School : ?
 (A) Student (B) Class (C) Education (D) Teaching

Directions (Q. No. 21 to 22): In the following figure the rectangle represents players, circle represents singers and triangle represents engineers?



21. How many players are singers?
 (A) 30 (B) 29 (C) 25 (D) 22
22. How many players are engineer but not singer?
 (A) 3 (B) 8 (C) 11 (D) 30

Directions (Q. No. 23 to 27): There is a (number/letter) series in following question with an item missing, marked with question mark (?). Find out that item from the given four options.

23. 24, 60, 120, 210, (?)
 (A) 300 (B) 336 (C) 420 (D) 525
24. 3, 4, 6, 8, 12, 14, 18, 20, 24, 30, (?), 38
 (A) 32 (B) 33 (C) 35 (D) 36
25. 225, 336, 447, (?), 669, 7710
 (A) 114 (B) 338 (C) 558 (D) 557

26. BEH, KNQ, TWZ, (?)
 (A) IJL (B) CFI (C) BDF (D) ADG
27. 2Z5, 7Y7, 14X9, 23W11, 34V13, (?)
 (A) 27U24 (B) 47U15 (C) 45U15 (D) 47V14

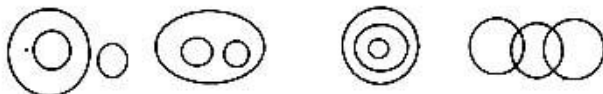
Directions (Q. No. 28 to 30): In a certain code “it be pee” means “roses are blue”, “sik hee” means “red flowers” and “pee mit hee” means “flowers are vegetables”.

28. How is “red” written in that code?
 (A) hee (B) sik (C) be (D) pee
29. How is “roses” written in that code?
 (A) it (B) pee (C) be (D) cannot be determined
30. How is “vegetables are red flowers” written in that language?
 (A) pee sik mit hee (B) sik pee hee be (C) it sik mit hee (D) mit pee sik hee

Directions (Q. No. 31 to 35): In each of the following question four words have been given, out of which three are alike in some manner and the fourth one is different. Choose out the different one.

31. (A) Microscope (B) Telescope (C) Periscope (D) Stethoscope
32. (A) Graphite (B) Pearl (C) Diamond (D) Coal
33. (A) Pen (B) Pencil (C) Calculator (D) Ink
34. (A) Table (B) Chair (C) Bench (D) Stool
35. (A) Rectangle (B) Square (C) Cube (D) Triangle

Directions (Q. No. 36 to 40): In the given diagrams, one of the diagram illustrates the relationship among three given classes. Select the correct alternative.



36. Metal, Iron, Chlorine
 (A) I (B) II (C) III (D) IV
37. Polygon, Rectangle, Square
 (A) I (B) II (C) III (D) IV
38. School, Class, Student
 (A) I (B) II (C) III (D) IV
39. Women, Primary Teacher, Doctor
 (A) I (B) II (C) III (D) IV
40. Food, Vegetable, Fruit
 (A) I (B) II (C) III (D) IV

Directions (Q. No. 41 to 45): In the following questions arrange the given words in a meaningful sequence and choose the most appropriate sequence from the alternatives given below each question.

41. (1) Birth (2) Death (3) Funeral (4) Marriage (5) Education
 (A) 4, 5, 3, 1, 2 (B) 2, 3, 4, 5, 1 (C) 1, 5, 4, 2, 3 (D) 1, 4, 5, 3, 2
42. (1) Table (2) Tree (3) Wood (4) Seed (5) Plant
 (A) 4, 5, 3, 2, 1 (B) 4, 5, 2, 3, 1 (C) 1, 3, 2, 4, 5 (D) 4, 2, 5, 3, 1
43. (1) Police (2) Punishment (3) Crime (4) Judge (5) Judgement
 (A) 3, 1, 2, 4, 5 (B) 1, 2, 4, 3, 5 (C) 5, 4, 3, 2, 1 (D) 3, 1, 4, 5, 2
44. (1) Study (2) Job (3) Examination (4) Earning (5) Application
 (A) 1, 3, 5, 2, 4 (B) 1, 5, 2, 3, 4 (C) 1, 2, 3, 5, 4 (D) 1, 2, 3, 4, 5
45. (1) Gold (2) Iron (3) Sand (4) Platinum (5) Diamond
 (A) 5, 4, 3, 2, 1 (B) 2, 4, 3, 1, 5 (C) 3, 2, 1, 5, 4 (D) 1, 2, 3, 4, 5

Directions (Q. No. 46 to 50): In column I below are given some words and in column II their equivalents in code language. Neither the code nor the letter in column II are given in the same order as the words and their spelling are given in column I. Study the two columns carefully and identify the code equivalent of the letter in the words in column I and answer the following questions.

Column I

HEAD

ROUTINE

ENOUGH

GHOST

MASTER

NOSE



Column II

hlongsx

dhpqrs

efnqr

efhnox

adeh

hnor

46. What is equivalent to D?
 (A) a (B) d (C) f (D) None of these
47. What is equivalent to E?
 (A) d (B) f (C) h (D) None of these
48. What is equivalent to G?
 (A) e (B) f (C) h (D) None of these
49. What is equivalent to I?
 (A) n (B) o (C) p (D) None of these
50. What is equivalent to U?
 (A) p (B) r (C) x (D) None of these

LANGUAGE COMPREHENSIVE (LCT)

Instruction (Q. No. 51 to 52):

The following five sentences come from a paragraph the first and the last sentence are given. Choose the order in which the three sentences should appear to complete the paragraph.

51. S. 1 Goods which are consumed together are called complementary goods.

S. 2 -----

S. 3 -----

S. 4 -----

S. 5 In general the demand for goods move in the opposite direction of the price of its complementary good.

P- Since tea and sugar are used together, the increase in the price of sugar is likely to decrease the demand of tea.

Q- The decrease in the price of sugar similarly would increase the demand for tea.

R- Example of goods which are complements to each other include tea and sugar, shoes and socks, pen and ink etc.

Choose from the given options-

(A) QPR (B) PQR (C) RPQ (D) QRP

52. S.1 The effect of books is two fold.

S. 2 -----

S. 3 -----

S. 4 -----

S. 5 But once printing has been don't, it does not matter how many copies of what you had written were eaten by mice.

P- Unless you can write down the idea or the poem, it will die.

Q- Even if you do write it down, it perishes soon as the mice eats the paper

R- They preserve knowledge in time and spread it in space.

Choose from the given options-

(A) RPQ (B) PQR (C) QRP (D) QPR

Instruction (Q. No. 53 to 55):

Following questions have the second sentence missing. Choose the appropriate sentence from the given options to complete it.

53. 1. A travel agency has arranged an informal dinner party for selected customers

2. -----

3. The purpose of the evening was to promote new schemes.

(A) Most of them were the dwellers of the near by locality.

(B) Most of the people were those who have availed the services of the agency.

(C) All the competitive travel agencies participated in the party.

(D) All the people were invited to attend the party.

54. 1. One hot summer day a lion was lying fast asleep under a shady tree in a forest.
 2. -----
 3. It ran across his body and woke him up
 (A) After some time the lion was caught in a hunters net
 (B) Both the lion and the mouse became friends.
 (C) It began to bite the ropes of the net with his sharp teeth.
 (D) A little mouse happened to pass that way.
55. 1. A scientist was working on the cure for Cancer
 2. -----
 3. Finally he started the research again.
 (A) He successfully got the solution and he was rewarded
 (B) He realized that he was wrong about beans curing Cancer.
 (C) He was mistaken by his colleagues.
 (D) He was trying to prove his research was true.

Instruction (Q. 56 to 60):

Choose the word which best fills the blank from the four options given below-

56. Our school gardener went to the _____ to buy a few pots of flowering plants.
 (A) Orchard (B) Estate (C) Plantation (D) Nursery
57. There will be a new _____ to train the basket ball team for the coming tournament in april.
 (A) Umpire (B) Refree (C) Coach (D) Judge
58. The discovery channel will be broadcasting an educational _____ on "Volcanic Eruption"
 tomorrow night
 (A) Documentary (B) Information report (C) Thriller (D) Drama
59. Mr. Sharma was _____ to part with his impressive sports car although he could no longer
 afford to pay for it.
 (A) Willing (B) Reluctant (C) Resisant (D) Impatient
60. She is so _____ that she easily catches cold.
 (A) Sensible (B) Sensitive (C) Sincere (D) Sober

Instruction (Q. 61 to 65):

Select the correct meaning of the given phrases/idioms-

61. Off and on
 (A) Repeatedly (B) Always (C) Occasionally (D) Never
62. Call of
 (A) To ask (B) To demand (C) To respond (D) To withdraw

63. Carry on
 (A) Finish (B) Start (C) Continue (D) Execute
64. Arms length
 (A) Length of arm (B) At a distance (C) Insult (D) Very near
65. Bag and baggage
 (A) All the clothing (B) Without any belongings
 (C) Leave (D) With all ones belongings

Instruction (Q. 66 to 68):

Find out the alternative which is the most opposite in meaning to the word given-

66. Bless
 (A) Curse (B) Cruel (C) Worse (D) Quiet
67. Create
 (A) Begin (B) Destory (C) Start (D) End
68. Ancient
 (A) old (B) dull (C) modern (D) Unique

Instruction (Q. 69 to 70):

Select the most appropriate options to fill in the blank from the following alternatives given below-

69. Rita seldom speaks _____.
 (A) Loud (B) Louder
 (C) Loudly (D) Loudness
70. He does his work with sincerity and _____.
 (A) Ernestly (B) Earnest
 (C) Earnestliness (D) Earnestness

Instruction (Q. 71 to 72):

Choose the alternative which can be substituted for the given sentence.

71. That which cannot be corrected-
 (A) Unintelligible (B) Incurrigible
 (C) Indelible (D) Illegible
72. One who possesses many talents-
 (A) Versatile (B) Nubile
 (C) Exceptional (D) Gifted

Instruction (Q. 73 to 80):

In the following passage there are some numbers blanks. Fill in the blanks by selecting the most appropriate word from the given options-

What happens when we speak without 73 audience? We are still in 74 sense, communicating, for 75 are communicating 76 our selves, telling our selves something, encouraging ourselves and 77 our selves agreeable stories about our selves and formulating 78 emotions. Most people 79 that to put our emotions into words even in complete solitude, usually makes it easier to deal with them. We 80 even talk to our selves with the specific purpose of communicating with a part of mind not fully under our own control.

73. (A) few (B) any (C) a few (D) little
74. (A) a (B) an (C) the (D) no article
75. (A) you (B) I (C) we (D) they
76. (A) to (B) within (C) on (D) with
77. (A) tell (B) telling (C) told (D) tells
78. (A) their (B) our (C) my (D) your
79. (A) know (B) knows (C) knew (D) knowing
80. (A) can (B) may (C) will (D) shall

Instruction -

For answering the question 81 to 85, read the passage and choose the most appropriate from the options given below-

Dieting is a craze prevalent especially among teenagers. People who are fat start having less fatty food and as a result have less nutrients essential for good health. In a research by US scientists on weight loss by dieting they found that dieting did not help in losing weight but it increased the risk of life threatening illness.

We should realise that our body needs a balanced diet which includes all the essential nutrients. In take of fruits, salads, fruit juices also help in reducing weight. Teenagers should pay special attention to their body needs, and should have a diet rich in green vegetables and salads. This will help them maintain a healthy and fit body. In a nut shell dieting does not mean eating less but instead it means having a balanced diet combined with regular physical exercise.

81. In a research, the Us scientist found that dieting helped in-
- (A) Decreasing body weight (B) Gaining good health
(C) Increasing life threatening risks (D) Gaining more essential nutrients
82. We can reduce our body weight by regular intake of-
- (A) Fruits, fruit juices and salads (B) Salads
(C) Vegetables and salads (D) Fruit juices

83. Effective dieting to lose weight is possible if-
- (A) One cuts down on all fatty foods
 - (B) One has balanced diet
 - (C) One combines balanced diet with regular exercise.
 - (D) One goes to gym regularly.
84. Teenagers are advised to take a diet that is rich in-
- (A) Carbohydrates
 - (B) Green vegetables and salad
 - (C) Proteins
 - (D) Calories
85. The term in a “nut shell” means-
- (A) Explanation
 - (B) Analysis
 - (C) Shell of any nut
 - (D) In short

Instruction-

For answering questions 86 to 90 read the passage and choose the most appropriate answer from the options given below.

‘My grandmother and I were good friends. My parents left me with her when they went to live in the city and we were constantly together. She used to wake me up in the morning and get me ready for school. She said her morning prayers in a monotonous sing song while she bathed and dressed me in the hope that I would listen and get to know them by heart. I listened because I loved her voice but never bothered to learn them. Then she would fetch my wooden slate which she already washed and plastered with yellow chalk, a tiny earthen inkpot and a reed pen, tie them all in a bundle and hand it to me. After a breakfast of a thick stale chapatti with little butter and sugar spread on it, we went to school. She carried several stale chapattis with her for the village dogs.

My grand mother always went to school with me because the school was attached to the temple. The priest taught us the alphabet and the morning prayers, while the children sat in rows or either side of veranda singing the alphabet or the prayers in a chorus, my grandmother sat inside reading scriptures. When we had both finished, we would walk back together with dogs following us for food.

86. The grandmother said her morning prayers loudly hoping-
- (A) That her neighbours would get up in time
 - (B) That her neighbours would learn it
 - (C) That the author would learn it.
 - (D) That the people would join her in her prayers.
87. The author’s breakfast consisted of-
- (A) Milk and eggs.
 - (B) A thick, stale chapatti with butter and sugar spread on it.
 - (C) Halwa and puri
 - (D) Bread, Butter and eggs.

88. The grandmother always accompanied the writer because
- (A) Both were good friends.
 - (B) She wanted to protect her grandson from dogs.
 - (C) She could read the holy scriptures in the temple.
 - (D) The writer was quite young.
89. She passed her time by-
- (A) Counting beads.
 - (B) Reading the scriptures in the temple.
 - (C) Teaching her young grandson.
 - (D) By talking to other old women of her age.
90. The person who taught the author was
- (A) His maternal uncle.
 - (B) His neighbour.
 - (C) A temple priest.
 - (D) His elder brother.



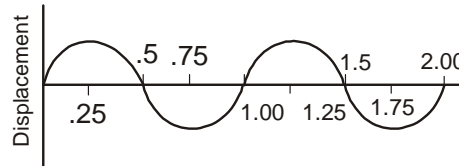
ANSWERS

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

***NOTE** - Question is wrong. In figure (ii) 144 should be 124.

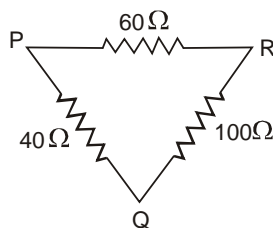
SCHOLASTIC APTITUDE TEST (SAT)

1. The weight of any object becomes zero-
 (A) At earth's pole (B) At earth's equator
 (C) At mountains (D) At centre of the earth
2. Radioactive materials do not emit
 (A) Electron (B) Proton (C) Neutron (D) Y-Rays
3. Displacement – Distance graph of any wave is shown in the figure. Its wavelength will be



- (A) 0.50 m (B) 1.00 m (C) 0.75 m (D) 1.50 m
4. Earthquake produces
 (A) Ultrasound (B) Audible sound (C) Infra sound (D) None of these
 5. To read dictionary which lens would you prefer-
 (A) Convex lens of 50 cm focal length (B) Concave lens of 50 cm focal length
 (C) Convex lens of 5 cm focal length (D) Concave lens of 5 cm focal length
 6. If a piece of rock is brought to earth from moon, then its-
 (A) Volume, density and weight remain unchanged
 (B) Volume and weight remain unchanged
 (C) Density and weight remain unchanged
 (D) Volume and density remain unchanged
 7. An object travels 16m in 4 seconds then another 16m in 2 seconds. Its average speed is-
 (A) 6m/sec (B) 5m/sec
 (C) 8m/sec (D) 5.3m/sec
 8. If the distance between two particles remains the same and their mass is doubled then the gravitational force between them becomes-
 (A) 4 times (B) 1/4 times
 (C) 1/2 times (D) Same
 9. A student Traces the path of a ray of light through a rectangular glass slab for four different angles of incidence. He very cautiously measures the angle i, angle r and angle e. On analyzing his measurements he is likely to draw the following conclusion.
 (A) $\angle i = \angle e > \angle r$ (B) $\angle i > \angle r > \angle e$
 (C) $\angle i - \angle r < \angle e$ (D) $\angle i = \angle e < \angle r$
 10. At the time of short circuit the current in the circuit
 (A) Reduces substantially (B) Does not change
 (C) Increases heavily (D) Vary continuously

11. Three resistances are joined according to fig The resultant resistance between P and Q will be



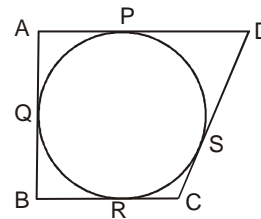
- (A) 32Ω (B) 200Ω (C) 64Ω (D) None of these
12. If radius of earth is decreased by 1% but mas is not changed then gravitational acceleration on earth surface is-
- (A) 2% increased (B) 2% decreased (C) 1% increased (D) 1% decreased
13. How many electrons are present in M shell of an element with atomic number 20-
- (A) 18 (B) 12 (C) 5 (D) 8
14. Which of the following sets of elements do not belong to the same group of the Periodic table-
- (A) Na, K, Rb (B) O, S, Se (C) O, S, P (D) N, P, As
15. Which of the following will show tyndal effect-
- (i) Common salt (ii) Milk (iii) Copper Sulphate solution (iv) Starch solution
- (A) (i) and (ii) (B) (ii) and (iv) (C) (ii) and (iii) (D) (i) and (iv)
16. Similarity between Na^+ ion and Ne is-
- (A) Number of electrons (B) Number of neutrons
- (C) Number of neutrons (D) Atomic mass
17. pH value of N/100 NaOH Solution will be
- (A) 2 (B) 8 (C) 10 (D) 12
18. In the reaction $2\text{SO}_2 + \text{O}_2 \rightleftharpoons 2\text{SO}_3 + \text{heat}$. Which of the following condition would be suitable to get a good yield of 2SO_3 –
- (A) Increase in temperature (B) Decrease in temperature
- (C) Decrease in pressure (D) All of above
19. In blast furnace iron oxide is reduced to iron-
- (A) By carbon (B) By lime stone
- (C) By carbon monoxide (D) By zinc
20. Which metal is present in brass, bronze and German silver-
- (A) Cu (B) Zn (C) Mg (D) Al
21. Acetone Contains-
- (A) 9π bonds and 1σ bond (B) 10σ bonds
- (C) 8σ bonds and 2π bonds (D) 9σ bonds and 1π
22. Write down the general formula of homologues series whose third homologue is C_4H_6 –
- (A) $\text{C}_n\text{H}_{2n+2}$ (B) $\text{C}_n\text{H}_{2n-2}$ (C) C_nH_{2n} (D) $\text{C}_{n+1}\text{H}_{2n-2}$

23. A Compound made of two elements A and B are found to Contain 25% A (atomic mass 12.5) and 75% B (atomic mass 37.5) The empirical formula of the compound is
 (A) AB (B) AB₂ (C) AB₃ (D) A₃B
24. Which of the following respire by gills-
 (A) Whale (B) Turtle (C) Frog (D) Prawn
25. Which of the following is a kind of tissue-
 (A) Lungs (B) Kidney (C) Blood (D) Pancreas
26. The tendrils of pea plant are modified-
 (A) Axillary buds (B) Stipules
 (C) Aerial roots (D) Terminal leaflets of compound leaf
27. Goitre is due to the deficiency of-
 (A) Iron (B) Iodine (C) Protein (D) Retinol
28. Rotation of crop is essential for-
 (A) Getting different kinds of crops (B) Increasing the quality of proteins
 (C) Increasing fertility of soil (D) All the above
29. According to the experiment of Mendel by crossing pure tall plants with pure short plants the ratio of tall and short plants produced in F₂ generation is-
 (A) 3 : 1 (B) 1 : 3 (C) 2 : 2 (D) 2 : 3
30. Protein which forms cartilage is-
 (A) Ossein (B) Chondrin (C) Caesin (D) Haemoglobin
31. A flower is said to be complete when it has
 (A) Calyx only
 (B) Calyx and corolla only
 (C) Corolla, Androecium and Gynoecium Only
 (D) Calyx, Corolla, Androecium and Gynoecium
32. The age of a tree can be calculated by-
 (A) Counting the number of branches (B) Counting the number of annual rings
 (C) Measuring its height (D) Feeling its hardness
33. Knee joint is-
 (A) Pivot joint (B) Hinge Joint (C) Gliding Joint (D) Ball and Socket Joint
34. Monocot stem anatomy differs from dicot stem anatomy because the monocot stem bears-
 (A) Scattered closed vascular bundle (B) Scattered open Vascular bundle
 (C) Closed Vascular bundle in a ring (D) Open Vascular bundles in a ring
35. Algae can be described as-
 (A) Autotrophic and chemosynthetic (B) Autotrophic and photosynthetic
 (C) Heterotrophic and photosynthetic (D) Heterotrophic and chemosynthetic
36. In 1857 the leadership of the revolt was in the hands of Bahadurshah Zafar at that time the commander of the Delhi Army was
 (A) Begum Hazrat mahal (B) Tatya Tope
 (C) Ahmedullah (D) Bakht Khan

37. Who was the founder of Banaras Hindu University-
- (A) Madan Mohan malviya (B) Ishwar chand vidya sagar
(C) Raja Ram Mohan Roy (D) Dr. Rajendra Prasad
38. A nationalist leader who died after being beaten up for protesting against "simon Commission" in feb 1928 was-
- (A) Govind vallabh pant (B) Lala lajpat Rai
(C) Gopal Krishna Gokhle (D) Bal Gangadhar Tilak
39. Pallava state was established in third century. Its capital was-
- (A) Hastinapur (B) Purushpur (C) Mahishpur (D) Kanchi
40. The key given by Mahatma Buddha to end the worldly suffering and desires are called
- (A) Samyak Drishti (B) Samyak sadhana (C) Ashtang marg (D) Vairagya
41. Who founded the Indian national army
- (A) Pt. Jawahar lal nehur (B) Subhash Chandra Bose
(C) Bhagat Singh (D) Mahatma Gandhi
42. Name the Indian patriot from Punjab who shot General O. Dyre in London in 1940
- (A) Sardar Bhagat Singh (B) Sardar Uddham singh
(C) Sardar Kartar Singh (D) Sardar Milkha Singh
43. When did Gandhiji come to Chhattisgarh for the first time-
- (A) 20th December 1920 (B) 21st December 1920
(C) 22nd December 1920 (D) 24th December 1920
44. Allied powers in word war II were
- (A) Germany, Italy, Japan, U.K. (B) Germany, Italy, Turkey, France
(C) U.K., France, Italy, Germany, (D) U.K. France, USSR, USA
45. Where was the first session of the Indian national congress held ?
- (A) Gokuldas Tejpal Sanskrit college (B) Tejpal Sanskrit college
(C) Gokuldas Sanskrit college (D) Sanskrit college
46. The highest peak of Himalyas in India is-
- (A) Dhaulagiri (B) Mt. Everest (C) Nanda Devi (D) Kanchenjunga
47. The longest river of southern India is-
- (A) Godavari (B) Kaveri (C) Krishna (D) Tungbhadra
48. In which district of Chhattisgarh is Kanger valley national park situated?
- (A) Bijapur (B) Dantewada (C) Bastar (D) Narayanpur
49. The tropic of cancer does not pass through which state-
- (A) Rajasthan (B) Tripura (C) Jharkhand (D) Bihar
50. Which is the most fertile soil ?
- (A) Khadar (B) Bangar (C) laterite (D) Reh
51. Which river flows through the Indian desert?
- (A) Chambal (B) Betwa (C) Luni (D) Tons

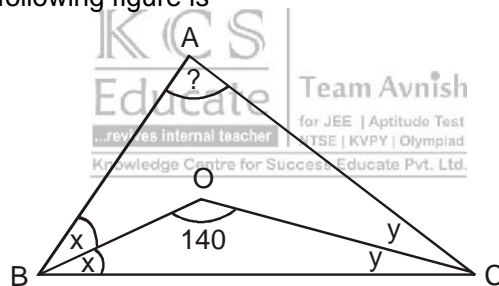
52. The first Indian census was held in
 (A) 1872 (B) 1881 (C) 1951 (D) 1901
53. Which of the following states are the major producers of Jute-
 (A) West Bengal, Bihar, Assam (B) West Bengal, Gujrat, Madhya Pradesh
 (C) West Bengal, Assam, Madhya Pradesh (D) West Bengal, Andhra Pradesh, Punjab
54. Which of the following region is known for the production of coffee in India-
 (A) Garo (B) Nilgiri (C) Satpuda (D) Arawali
55. Koderma in Jharkhand is the leading producer of which one of the following minerals-
 (A) Mica (B) Bauxite (C) Iron-ore (D) Copper
56. How many members of the constituent assembly Wrote the Indian Constitution?
 (A) 299 (B) 329 (C) 199 (D) 139
57. Which of the following Country is not a permanent member of U. N. Security Council-
 (A) China (B) India (C) USA (D) France
58. World Human Right day is on
 (A) 1 December (B) 5 December (C) 9 December (D) 10 December
59. The line of control (LOC) between India and Pakistan is known as
 (A) Durand line (B) Mc mohan line (C) Redcliff line (D) Maginaut line
60. Where is the headquarter of UNO situated ?
 (A) Washington (B) New York (C) Geneva (D) Paris
61. The lower age limit for becoming a member of Rajya sabha is-
 (A) 35 years (B) 40 years (C) 30 years (D) 25 years
62. How many spokes are present in the wheel of our national flag?
 (A) 18 (B) 22 (C) 23 (D) 24
63. Which of the following country has a federal system of government?
 (A) Congo (B) Sudan (C) Tanzania (D) South Africa
64. The total number of Loksabha members is-
 (A) 250 (B) 230 (C) 545 (D) 550
65. Who has the authority to formulate the law on the subjects of the concurrent list-
 (A) Indian parliament only (B) State government only
 (C) President of India (D) Union and state government
66. The population of India in 2011-
 (A) 120.8 crores (B) 121.8 crores (C) 122.8 crores (D) 123.8 crores
67. How many days of work in a year are guaranteed by the government under NREGA 2005
 (A) 100 days (B) 150 days (C) 90 days (D) 120 days
68. Which of the following area in not included under primary sector-
 (A) Factory (B) Dairy (C) Fishing (D) Forestry
69. Creation of utility comes under which part of economics-
 (A) Consumption (B) Production (C) Exchange (D) Distribution

70. Illegal trade of foreign products in the country is called-
 (A) Black Marketing (B) Stocking (C) Corruption (D) Smuggling
71. Which number of these is smallest?
 $\sqrt{2}, \sqrt{3}, \sqrt[3]{2}, \sqrt[3]{3}$
 (A) $\sqrt{2}$ (B) $\sqrt{3}$ (C) $\sqrt[3]{2}$ (D) $\sqrt[3]{3}$
72. The median of first five composite number is-
 (A) 6 (B) 8 (C) 9 (D) 10
73. Three bells ring at intervals of 14, 21 and 42 minutes respectively if they ring together at 11.24 am. When will they ring together for the first time after that?
 (A) 11 : 59 am (B) 12 : 06 pm (C) 12 : 20 pm (D) 12 : 41 pm
74. A Certain sum at compound interest doubles in 5 years then in how many years will the same amount at the same rate become eight times?
 (A) 25 (B) 20 (C) 15 (D) 13
75. Two items when sold for Rs 180 each, the shopkeeper gains 20% profit on one and loses 20% on other. The total loss to the shopkeeper will be-
 (A) Rs. 15 (B) Rs. 18 (C) Rs. 20 (D) Rs. 22
76. If $\frac{y-x}{x} = \frac{3}{8}$ then the value of $\frac{x}{y}$ will be-
 (A) $\frac{3}{11}$ (B) $\frac{11}{3}$ (C) $\frac{11}{8}$ (D) $\frac{8}{11}$
77. A and B can do a piece of work in 10 days. B and C can do the same work in 15 days and A and C can do in 20 days. How long will C takes to do the same work separately?
 (A) 110 Days (B) 120 Days (C) 150 Days (D) 30 Days
78. If $x = 3\sec^2 \theta - 1$ and $y = \tan^2 \theta - 2$ then $x - 3y$ equal is
 (A) 3 (B) 4 (C) 5 (D) 8
79. In the given figure quadrilateral ABCD is circumscribed touching the circle at P, Q, R and S. If AP = 5 cm, BC = 7cm and CS = 3 cm then length AB will be-
 (A) 9 cm (B) 10 cm
 (C) 12 cm (D) 8 cm



80. A man can swim a certain distance downstream in 6 hrs and return the same distance in 9 hrs. If the stream flows at the rate of 3 km/h, the speed of the man in still water will be
 (A) 6 km/h (B) 9 km/h (C) 12 km/h (D) 15 km/h
81. For which value of a and b does the following pair of linear equations have an infinite number of solution $2x + 3y = 7$
 $(a - b)x + (a + b)y = 3a + b - 2$
 (A) a = 5 b = 1 (B) a = 4 b = 2 (C) a = 1 b = 5 (D) a = 2 b = 4

82. If $x + \frac{1}{x} = 2$ then the value of $x^5 + \frac{1}{x^5}$ will be-
 (A) 32 (B) 8 (C) 2 (D) 0
83. If $a = \frac{9}{\sqrt{11-\sqrt{2}}}$, $b = \frac{6}{3\sqrt{3}}$ then relation between a and b is-
 (A) $a < b$ (B) $a > b$ (C) $a + b \geq 1$ (D) $a \leq b$
84. The first term of an AP is 1 and the common difference is 4. Which of the following is a term of this AP?
 (A) 4551 (B) 13531 (C) 10091 (D) 7881
85. The points (6, 12) and (0, -6) lies on a straight line. Another point on this line is-
 (A) (3, 3) (B) (2, 1) (C) (-1, -4) (D) (-3, -2)
86. If there are 10 persons. Every two of them shake hands with each other, then how many handshakes happen?
 (A) 20 (B) 25 (C) 40 (D) 45
87. Radius of any solid sphere is r. Total surface area of one fourth of this sphere will be
 (A) πr^2 (B) $2\pi r^2$ (C) $3\pi r^2$ (D) $4\pi r^2$
88. The measure of $\angle A$ in following figure is



- (A) 100° (B) 80° (C) 70° (D) 40°
89. If $\cos \theta = \frac{3}{5}$ the value of $\cos 2\theta$ will be-
 (A) $\frac{6}{5}$ (B) $\frac{9}{25}$ (C) $\frac{-7}{25}$ (D) $\frac{-2}{5}$
90. If $x = \sqrt{6 + \sqrt{6 + \sqrt{6 + \dots}}}$ then the value of x will be-
 (A) ∞ (B) 6 (C) 3 (D) 2

ANSWERS

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

Delhi: 1B, Block GG1, Vikaspuri, New Delhi-110018.

Bhilai: 157, New Civic Centre, Bhilai, Durg (C.G.). Ph. No. 0788 - 6454505

MENTAL ABILITY

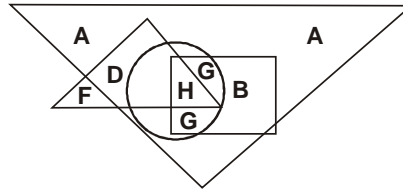
Directions (Q. No. 1 to 5): There is a (number/letter) series in the following questions with an item missing marked with questions mark (?) Find out that item from the four options given.

1. 65, 128, 221, 350, (?)
 (A) 425 (B) 478 (C) 512 (D) 521
2. 864, 420, 200, (?), 40, 16, 6
 (A) 106 (B) 101 (C) 92 (D) 90
3. UPI, (?), ODP, MBQ, IAW
 (A) RHJ (B) SHJ (C) SIJ (D) THK
4. KM5, IP8, GS11, EV14, (?)
 (A) BX17 (B) BY17 (C) CY17 (D) CZ17
5. PMT, OOS, NQR, MSQ, (?)
 (A) LUP (B) LVP (C) LVR (D) LWP
6. In the following letter series some of the letters are missing. Select the correct one from the given alternative.
 n_qn, _nqt, _tqq, tn_n, _tqt
 (A) nnqtq (B) qtnqt (C) ttnqn (D) qqtnt
7. If P denotes +, Q denote –, R denotes × and S denotes ÷, which of the following statement is correct?
 (A) 36 R 4 S 8 Q 7 P 4 = 10 (B) 16 R 12 P 49 S 7 Q 9 = 200
 (C) 32 S 58 R 9 = 160 Q 12 R 12 (D) 8 R 8 P 8 S 8 Q 8 = 57

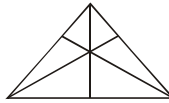
Directions (Q. No. 8 & 9): If 'Δ' denotes equal to '□' denotes not equal to '+' denotes greater than '-' denotes less than '×' denotes not greater than '÷' denotes not less than, then choose the correct alternative in the following questions.

8. $a + b - c$ implies
 (A) $b - c - a$ (B) $c - b + a$ (C) $c + b - a$ (D) $c \times d \div a$
9. $a \times b \div c$ implies
 (A) $a - b + c$ (B) $c \times b \div a$ (C) $a \square b \square c$ (D) $b \div a \div c$

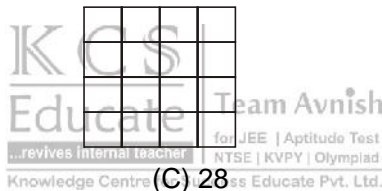
Directions (Q. No. 10 & 11): Here big triangle represents artists, small triangle represents scientists, square represents dancer and circle represents doctors.



10. Which letter represents the artists who are only doctors and dancers ?
 (A) A (B) D (C) G (D) H
11. Which letter represents the scientists who are not artists?
 (A) B (B) D (C) F (D) L
12. How many triangles are there in following figure ?

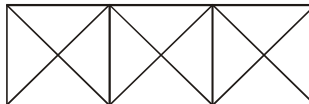


- (A) 16 (B) 13 (C) 9 (D) 7
13. How many squares are there in the following figure ?



- (A) 16 (B) 20 (C) 28 (D) 30

Directions (Q. No. 14 & 15): Study the following figure and answer the following questions.



14. How many triangles are there in the figure?
 (A) 24 (B) 28 (C) 30 (D) 31
15. How many rectangles are there in the figure?
 (A) 1 (B) 2 (C) 3 (D) 4
16. Find odd one out.
 (A) Kilogram (B) Gram (C) Pound (D) Meter
17. Find odd one out.
 (A) Square (B) Circle (C) Rectangle (D) Triangle

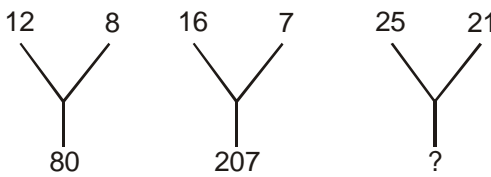
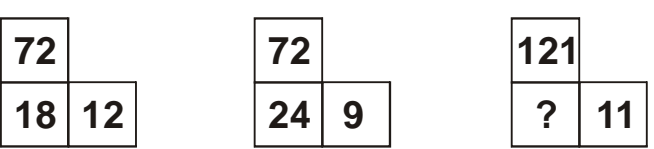

Directions (Q. No. 18 to 20) : Each question consists of four terms. One term is different from the other three in some way. Find out the different term.

18. (A) NMRQ (B) FEIH (C) SRWV (D) HGLK
19. (A) ALTER (B) TALET (C) TALEN (D) LATER
20. (A) 9:40 (B) 6:26 (C) 11:46 (D) 16:66

Directions (Q. No. 21 & 22): There is some relationship between the two sets of the letters on the left of the (::). The same relationship exists between the two terms on the right of which one is missing. Find the missing one from the given alternatives.

21. Army : Soldier :: Galaxy : ?
 (A) Stars (B) Only planet (C) Universe (D) Satellite
22. Well : Depth :: Word : (?)
 (A) Book (B) Letter (C) Meaning (D) Alphabet
23. In a certain code language GO AHEAD is written as JRDKHGDG. How will you write RETURN in the same code language ?
 (A) UHWXUQ (B) VIXUQM (C) UHWXUR (D) UHWXVR
24. If PROMOTION is written in a code language as QSP89, then what will be the code for DEMOTION?
 (A) DE89 (B) EF89 (C) EG89 (D) EFNLUPM
25. In a coded language 'MOLD' is written as 'NH'. How will you write NTSE in that language ?
 (A) PL (B) QM (C) QL (D) PM
26. If RED is coded as 6720 then how would GREEN be coded ?
 (A) 1977199 (B) 1677209 (C) 16717209 (D) 9207716

Directions (Q. No. 27 to 29): Which number will replace the question mark (?)

27. 
 (A) 184 (B) 180 (C) 174 (D) 170
28. 
 (A) 66 (B) 33 (C) 54 (D) 60
29. 
 (A) 12 (B) 13 (C) 10 (D) 14
30. Suman is 40 m South-West of Ashok, Prakash is 40 m South-East of Ashok. Prakash is in which direction of Suman ?
 (A) West (B) East (C) South-East (D) North

31. A watch reads 4.30. If the minute hand points East, then in which direction will the hour hand point?
 (A) North (B) North-West (C) South-East (D) North-East
32. One Evening before sunset, two friends Suresh and Mohan were facing towards each other and talking. If Mohan's shadow was exactly to his right side, then in which direction was Suresh facing?
 (A) South (B) North (C) West (D) Data inadequate

Directions (Q. No. 33 to 37): A solid cube is painted red on two adjacent faces, yellow on the two faces opposite to the red faces and green on the remaining faces. It is then cut into 64 smaller cubes of equal size. Answer the following questions based on these information.

33. How many cubes are there which have all painted faces?
 (A) 4 (B) 8 (C) 0 (D) 16
34. How many cubes are there which have no face painted?
 (A) 24 (B) 8 (C) 16 (D) 4
35. How many cubes are painted yellow on one face only?
 (A) 8 (B) 4 (C) 16 (D) 32
36. How many cubes have three faces painted?
 (A) 12 (B) 16 (C) 6 (D) 8
37. How many cubes are painted on two faces only with the same colour?
 (A) 4 (B) 16 (C) 8 (D) 0

Directions (Q. No. 38 to 40): Eight friends E, F, G, H, I, J, K and L are seated around a square table two on each side.

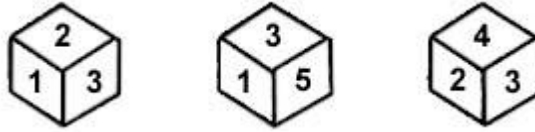
- (i) There are three ladies but they are not seated next to one another
 (ii) J is between L and F
 (iii) G is between I and F
 (iv) H is a lady and is second to the left of J
 (v) F, a male is seated opposite to E, a female
 (vi) There is a lady between F and I

38. Who is seated between E and H?
 (A) F (B) I (C) J (D) K
39. Who are the three females?
 (A) EGJ (B) EHG (C) GHJ (D) HGK
40. Who is to the immediate left of F?
 (A) G (B) I (C) J (D) H
41. If in a year (which is not a leap year) the first day falls on Friday then which day would be the last day of that year?
 (A) Friday (B) Sunday (C) Monday (D) Tuesday
42. In a row of 16 boys when Prakash moves two places to the left then he becomes 7th from the left. What was his initial place from right side?
 (A) 10th (B) 9th (C) 8th (D) 7th

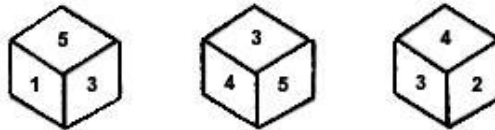
Directions (Q. No. 43 to 46): Asha and Dara are children of Mr. Dass. Asha marries Sudesh Chopra and Sunil, Suresh and Sonu are born to them. Sunil is married to the eldest daughter of Mr. and Mrs. Roy. Bindu is younger to Rita and older than Sita and all are daughters of Mr. and Mrs. Roy. Gita is Sunil's daughter.

43. What is Suresh's surname?
 (A) Roy (B) Chopra (C) Dass (D) Cannot be determined

44. Who is married to Sunil?
 (A) Rita (B) Bindu (C) Sita (C) None of these
45. How is Dara related to Sonu?
 (A) Brother-in-Law (B) Brother (C) Maternal-Uncle (D) None of these
46. What is Gita's surname?
 (A) Roy (B) Chopra (C) Dass (D) None of these
47. Three positions of one dice are shown below. Which digit will come opposite face of '3'?



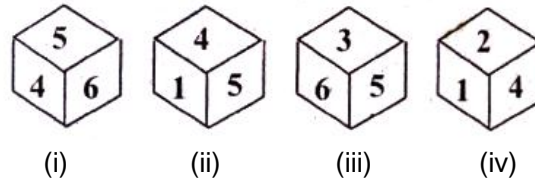
- (A) 6 (B) 1 (C) 4 (D) 5
48. Which number will appear on the opposite face of '4'?



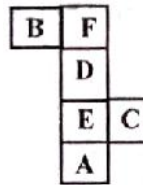
- (A) 1 (B) 2 (C) 5 (D) 6
49. Which letter is on the opposite face of A?



- (A) C (B) D (C) E (D) F
50. Four positions of a dice are shown below which number must be at the bottom side when the dice is in the position as shown in figure (iii)?



- (A) 1 (B) 2 (C) 6 (D) 4
51. The following figure is converted in to a cube. Its incorrect shape will be



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

Directions (Q. No. 52 to 56): Study the following information and answer the question given below.

1. In a family there are six members A,B,C,D,E and F
2. C is sister of F
3. B is the brother of E's Husband
4. D is father of A and grand father of F.
5. There are two fathers, three brothers and a mother in the family .

52. How F is related To E?
 (A) Daughter (B) Husband (C) Son (D) Uncle
53. Who is E's Husband?
 (A) A (B) B (C) C (D) F
54. Who is the mother?
 (A) A (B) B (C) C (D) E
55. How many male member(s) are there in the group?
 (A) 1 (B) 2 (C) 3 (D) 4
56. Which of the following is group of brothers?
 (A) ABD (B) ABF (C) BDF (D) BFC
57. If \times mean $+$, \div means $-$, $+$ means \times and $-$ means \div then $20 \times 8 \div (8 - 4) + 2 = ?$
 (A) 80 (B) 25 (C) 24 (D) 5
58. If \times means \div , $-$ means \times , \div means $+$ and $+$ means $-$, then $\{(3 - 15 \div 19) \times 8\} + 6 = ?$
 (A) 8 (B) 4 (C) 2 (D) -1
59. If \times means $+$, \div means $-$, $-$ means \times and $+$ means \div then $8 \times (7 - 8 + 40) \div 2 = ?$
 (A) 1 (B) $7\frac{2}{5}$ (C) $8\frac{3}{5}$ (D) 44
60. If $+$ means $-$, $-$ means \times , \times means \div and \div means $+$ then $(15 \times 3) \div 15 + (5 - 2) = ?$
 (A) 0 (B) 6 (C) 10 (D) 20

Directions (Q. No. 61 to 65): The given figure represents a multiplication operation where each alphabet represents a different number.

$$\begin{array}{r}
 \text{A A} \\
 \times \text{B C} \\
 \hline
 \text{D 7 4} \\
 + \text{A A E} \\
 \hline
 \text{5 9 4}
 \end{array}$$






61. What is the value of A?
 (A) 0 (B) 3 (C) 2 (D) 4
62. What is the value of D?
 (A) 3 (B) 2 (C) 4 (D) 5
63. What is the value of B?
 (A) 3 (B) 1 (C) 2 (D) 6
64. What is the value $AB + CD - BE$?
 (A) 75 (B) 86 (C) 84 (D) 88
65. What is the value of E?
 (A) 0 (B) 3 (C) 2 (D) 4

66. If white is called blue, blue is called red, red is called yellow, yellow is called green, green is called black, black is called violet and violet is called orange, then what would be the colour of human blood?
 (A) Red (B) Green (C) Yellow (D) Orange
67. If sand is called air, air is called plateau, plateau is called well, well is called island and island is called sky, then from where will a woman draw water?
 (A) Well (B) Island (C) Sky (D) Sand
68. If paper is called wood, wood is called straw, straw is called grass, grass is called rubber, rubber is called cloth, then what is furniture made up of?
 (A) Paper (B) Wood (C) Straw (D) Cloth

Directions (Q. No. 69 to 72): Read the following information and answer the question given below.

- A + B means 'A daughter of B'; A × B means 'A is son of B'; A – B means 'A is wife of B'
69. If P × Q – S, then which of the following is true?
 (A) S is wife of Q (B) S is father of P
 (C) P is daughter of Q (D) Q is father of S
70. If Z × T – S × U then how U is related to Z ?
 (A) Mother (B) Grand mother (C) Father (D) Grand father (father's father)
71. If T – S × B – M, then which of the following is not true?
 (A) B is mother of S (B) M is husband of B
 (C) S is daughter of B (D) S is son of B
72. If P × Q means 'P is daughter of Q', P +, Q means 'P is father of Q', P ÷ Q means 'P is mother of Q', P – Q means 'P is brother of Q', then in the expression below, how A is related to F?
 A ÷ B + C – E × F
 (A) Mother (B) Mother – in – law (C) Aunt (D) Daughter – in – law
73. A man said to a lady "your mother's husband's sister is my aunt". How is the lady related to the man ?
 (A) Mother (B) Aunt (C) Sister (D) Daughter
74. Namita walks 14 metres towards west then turns to her right and walks 14 metres and then turn to her left and walk 10 metres. Again turning to her left she walks 14 metres. What is the shortest distance between her starting point and the present position?
 (A) 10 (B) 24 (C) 28 (D) 38
75. Radhika walks 50 metres south of her house then she turns left and walks another 20 metres. Then turning to the North she walks 30 metres and then starts walkings to her house. In which direction is she walking now?
 (A) North East (B) North West (C) North (D) West

Directions (Q. No. 76 to 80): Visualize the image of the given item.

76. 
- (A) 
- (B) 
- (C) 
- (D) 

RAHUL

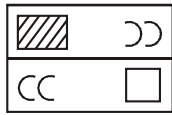
Mirror

77.



- (A) **BAHNL** (B) **BAHNL** (C) **RAHNL** (D) **RAHUL**

78.



Mirror

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

79.



Mirror

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

80.

5 2 6 9 3



Mirror

- (A) **2 5 9 3** (B) **5 5 9 6 3** (C) **2 2 9 9** (D) **5 5 6 9 3**

Directions (Q. No. 81 to 85): The following questions are based on the arrangement of alphabets in the form of a pyramid. In each question there is some relationship between the two sets of letters on the left of the (::). The same relationship exists between the two terms on the right of which one is missing. Find the missing one from the given alternatives.

A

B C D

E F G H I

J K L M N O P

Q R S T U V W X Y

81. ABD : ADB :: AEI : ?

- (A) AIE (B) EAI (C) IEA (D) AEI

82. AES : AIWI :: ? : CHN

- (A) CKS (B) CFL (C) CFT (D) CBF

83. EFLK : ? :: GEKM : GIOM

- (A) IHON (B) HOIN (C) IHNO (D) HION

84. ? : HXVH :: GSUG : GWUG

- (A) FRTF (B) FRFT (C) TFRT (D) FKTF

85. JKTU : ? :: JLUW : PNUS

- (A) POVU (B) POUV (C) OVUP (D) VOUP

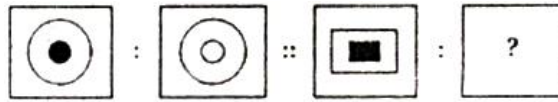
Delhi: 1B, Block GG1, Vikaspuri, New Delhi-110018.

Bhilai: 157, New Civic Centre, Bhilai, Durg (C.G.). Ph. No. 0788 - 6454505

Website: www.kcseducate.in | Email: info@kcseducate.in

Directions (Q. No. 86 to 90): In the following questions, there is same relationship between the two figures on the left of (::), the same relationship exists between the two figures on the right, of which one is missing. Find the missing one from the given alternative.

86. Question figure



Answer figure



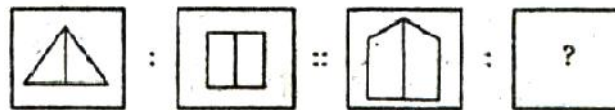
87. Question figure



Answer figure



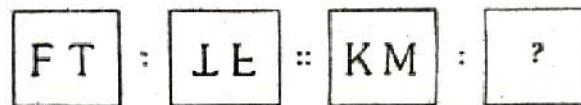
88. Question figure



Answer figure



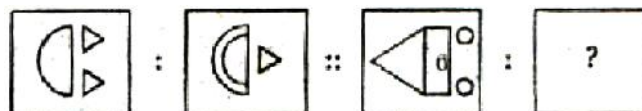
89. Questions figure



Answer figure



90. Question figure



Answer figure



ANSWERS

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

***NOTE** – Only option A is possible but still the image of 3 is missing.

****NOTE** – It may be a printing mistake. Second I in AIWI is extra.

SCHOLASTIC APTITUDE TEST (SAT)

1. All bodies whether large or small fall with the
 - (A) Same force
 - (B) Same acceleration
 - (C) Same velocity
 - (D) Same momentum
2. Heat radiations travel with a speed
 - (A) Less than the speed of light
 - (B) Equal to the speed of light
 - (C) Greater than the speed of light
 - (D) Equal to the speed of sound
3. Which one of the following statement is true
 - (A) The weight of a substance in air is less than its weight in water
 - (B) The mass of substance is equal to the mass of an equal volume of water
 - (C) The weight of a substance in water is equal to its weight in some other liquid
 - (D) The weight of a substance in water is less than its weight in air
4. When an object is placed between two plane mirrors inclined at an angle of 60° the number of images formed would be
 - (A) One
 - (B) Two
 - (C) Five
 - (D) Eight
5. On increasing the number of resistance connected in series, the total resistance would
 - (A) Increase
 - (B) Decrease
 - (C) Remain the same
 - (D) Decrease with time
6. When a magnet is bent in the form of 'L' its magnetic moment would
 - (A) Increase
 - (B) Decrease
 - (C) Remain the same
 - (D) Can't be determined
7. When a radio active substance is placed in water the rate of emission of radiation would
 - (A) Increase
 - (B) Decrease
 - (C) Remain the same
 - (D) Cannot be determined
8. When a ebonite rod is rubbed with cat's skin, the cat's skin
 - (A) Loses the electron
 - (B) Loses the proton
 - (C) Loses the neutron
 - (D) Is charged negatively
9. Which of the following can be used after recharging
 - (A) Dry cell
 - (B) Leclanche cell
 - (C) Voltaic cell
 - (D) Lead acid cell
10. In which of the following medium the velocity of sound is maximum
 - (A) Solid
 - (B) Liquid
 - (C) Gas
 - (D) Vacuum
11. In circular motion the
 - (A) Direction of motion is fixed
 - (B) Direction of motion changes continuously
 - (C) Velocity remains constant
 - (D) Acceleration is zero

12. Joule is a unit of
 (A) Work (B) Energy
 (C) Work as well as energy (D) Neither of work nor of energy
13. In which of the following both covalent and ionic bond are found
 (A) NH_4Cl (B) H_2O (C) CCl_4 (D) CaCl_2
14. A compound contains 80% C and 20% H. Its molecular mass is 30, molecular formula of the compound is
 (A) CH_3 (B) C_3H_6 (C) C_2H_6 (D) CH
15. An element with atomic number 32 is the member of
 (A) 4th period VI A group (B) 3rd period IV A group
 (C) 5th period V A group (D) 4th period IV A group
16. In the reaction $\text{N}_2 + \text{O}_2 \rightleftharpoons 2\text{NO}$ –heat, which of the following condition would be suitable to get a good yield of NO
 (A) Increase in temperature (B) Decrease in temperature
 (C) Increase in pressure (D) Decrease in pressure
17. The number of σ and π bonds in C_2H_2 is
 (A) 2 and 2 (B) 3 and 2 (C) 2 and 3 (D) 4 and 1
18. Grease spots from garments are separated by the method of
 (A) Evaporation (B) Sublimation
 (C) Solvent extraction (D) Chromatography
19. The formula of a compound when the positive radical A has a valency 2 and the negative radical B has a valency 1 is
 (A) AB (B) B_2A (C) A_2B (D) AB_2
20. Which is the correct order of increasing bond length of the following C – C, C = C, C \equiv C
 (A) C \equiv C < C = C < C – C (B) C = C < C – C < C \equiv C
 (C) C \equiv C < C – C < C = C (D) C – C < C = C < C \equiv C
21. Under normal conditions, naphthalene changes its state from
 (A) Solid a liquid (B) Solid to gas (C) Liquid to gas (D) Liquid to solid
22. Among which of the following is a detergent
 (A) Sodium carbonate (B) Sodium stearate
 (C) Sodium lauryl sulphate (D) Sodium chloride
23. On combustion of 2 mol of $\text{C}_2\text{H}_5\text{OH}$, the amount of CO_2 obtained will be
 (A) 88 gm (B) 44 gm (C) 22 gm (D) 176 gm
24. Prokaryotic cell does to contain
 (A) Cell wall (B) Nuclear membrane
 (C) Plasma membrane (D) Vacuole

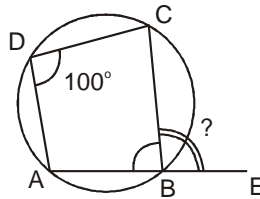
25. The ascent of sap in a 50 feet tall tree can be explained by following
 (A) Transpiration pull (B) Root pressure
 (C) Osmotic pressure (D) Atmospheric pressure
26. Owl can see in the dark but human can not because the eyes of owl have
 (A) Large pupils and have more expansion capacity
 (B) More focal capacity of lens and is more far from diaphragm
 (C) More sensitive cell and special protein in eye
 (D) All of above
27. Gametes are
 (A) Haploid and formed by meiosis (B) Diploid and formed by mitosis
 (C) Diploid and formed by meiosis (D) Haploid and formed by mitosis
28. In human offspring's sex is, determined by
 (A) Sex chromosome of mother (B) Sex chromosome of father
 (C) Shape of ovum (D) Shape of sperm
29. Vaccine of small pox contains
 (A) Dead bacteria (B) Living bacteria (C) Living virus (D) Mixed microbes
30. Two main functions of leaves are
 (A) Transpiration and respiration (B) Photosynthesis and transpiration
 (C) Photosynthesis and respiration (D) Respiration and guttation
31. Which of the following vitamin has cobalt
 (A) Vitamin B₆ (B) Vitamin B₂ (C) Vitamin B₁ (D) Vitamin B₁₂
32. Which of the following enzyme converts starch into sugar
 (A) Lipase (B) Amylase (C) Nuclease (D) Trypsin
33. The possible ratio of hybridization between RrTt and rrtt will be
 (A) 3 : 1 (B) 9 : 3 : 3 : 1 (C) 1 : 1 : 1 : 1 (D) 1 : 2 : 1
34. Which of the following is a poultry disease
 (A) Ranikhet (B) Anthrax (C) Foot and mouth (D) Pebrine
35. Which of the following leaves take part in vegetative reproduction
 (A) Lotus (B) Bryophyllum (C) Monotropa (D) Mango
36. Town Planning and Roads is the specific characteristics of which civilization ?
 (A) Vaidic period (B) Sindhu valley period
 (C) Budhista period (D) Mugal period
37. Out of the following who has called the "Father of History" ?
 (A) Plutarch (B) Herodotus (C) Pliny (D) Thucydides

38. What is "Jaliyanwala Bag" ?
 (A) A mausoleum at Aurangabad
 (B) A shrine at Delhi
 (C) A park surrounded by Highwalls at Amritsar
 (D) Building of musaleum at Delhi
39. The most important achievement of the cholas rulers was
 (A) Art and Architecture (B) Army organisation
 (C) Local bodies administration (D) Treaty between war and trade
40. The first satyagrah movement was started by Mahatma Gandhi at
 (A) Bardoli (B) Dandi (C) Champaran (D) Ahamadabad
41. Who was responsible for Jalianwallah Bag massaccare?
 (A) Lord Dalhousie (B) General Dyre
 (C) Lord mount Baten (D) Lord villiam Bentick
42. Who of .the following was not the leader of the "Naram Dal" of congress?
 (A) Lala Lajpat Rai (B) Dada Bhai Nauroji
 (C) Surendra Nath Banerjee (D) Gopal Krishna Gokhale
43. Which of the following buildings is not built in the mugal Period?
 (A) Buland Darwaja (B) Jama Mosquu
 (C) Qutub minar (D) Moti Mosque
44. Who said " freedom is my birth right and I shall have it" ?
 (A) Mahatma Gandhi (B) Chandra Shakhar Azad
 (C) Subhash Chandra Bose (D) Bal GangadharTilak
45. In which cily is the Head quarter of united Nation organisation situated?
 (A) Newyork (B) Vienna (C) Mexico (D) Berlin
46. Sudden tremor on the crust of the Earth is called?
 (A) Deluge (B) Tsunami (C) Tides (D) Earth quake
47. As so further the Place from the Equator it would be that much-
 (A) Hotter (B) Colder (C) Temperate (D) Unchanged
48. Which is called "white continent" in the given below-
 (A) Europe (B) Asia (C) Australia (D) Antarctica
49. The cities who situated on the bank of the Brahmaputra river?
 (A) Sanchi – Vidisha (B) Guwahati – Dibrugarh
 (C) Sambalpur – Cuttuk (D) Nasik – Chandrapur
50. Forest where trees are always green are called-
 (A) Protected forest (B) Unclassified forest
 (C) Coniferous forest (D) Deciduous forest

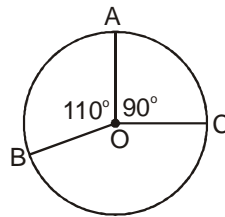
51. When two or more crops are grown simultaneously in the same field is called?
 (A) Intensive Agriculture (B) Rotation of crops
 (C) Multiple farming (D) Extensive Agriculture
52. Give the name of two states through which the Mahanadi flows-
 (A) Chhattisgarh- Andhra Pradesh (B) Chhattisgarh – Orisa
 (C) Chhattisgarh – Maharashtra (D) Gujrat – Chhattisgarh
53. Which of the following rivers flows towards East to west?
 (A) Krishna – Kaveri (B) Chambal – soan
 (C) Narmada – Tapti (D) Ganga – Yamuna
54. The Tata Iron and steel Company (Factory) where was established in the year 1907?
 (A) Rourkela (B) Bhilai (C) Jamshedpur (D) Durgapur
55. Genrally the Atmosphere gets warm by-
 (A) Releasing of Gases from Factories and vehicles
 (B) Sun Radiation
 (C) Diffusion of heat from Earth surface
 (D) All the above sources
56. According to the constitution India is a Republican country because it has-
 (A) An elected Prime minister (B) Member of Parliament has elected
 (C) A federal form of Government (D) An elected president
57. Which comprises Parliament of India (Sansad)-
 (A) President, Loksabha, Rajyasabha (B) Prime Minister, Loksabha, legislative Assembly
 (C) Governor, Loksabha, Rajyasabha (D) Governor, State minister, Legislative Assembly
58. Who given the “oath of secrecy” to the president of India?
 (A) Prime Minister (B) Chief Justice of supreme court
 (C) Vice president (D) Chief election commissioner
59. The parliamentary system in India has adopted from which country?
 (A) England (B) Ireland (C) America (D) Canada
60. Which Act was introduced in 2005 for the transparent administration of the Government?
 (A) Right to Education (B) Right to Information
 (C) Right to Employment (D) Right to work
61. Who has the responsibility to defend the fundamental rights?
 (A) Parliament (B) President (C) Supreme Court (D) Rajya sabha
62. The finance bill is first presented in where?
 (A) In Rajya sabha (B) In Lok sabha
 (C) Finance ministry (D) Joint Parliament meeting

63. Which of the country is not a Permanent member of the Defence council at U.N.O.?
 (A) Amrica (B) India (C) China (D) Russia
64. The Doctrine of "Panchsheel" is related to which India policy?
 (A) Social Policy (B) Sports Policy (C) Defence Policy (D) Foreign Policy
65. Which of the following factors encourages to National Integrity?
 (A) Respect towards the own religion (B) Respect towards the own caste
 (C) Respect towards the own nation (D) Respect toward the own regional Language
66. National Income of the country / Total Population of the country, from that formula what will we know?
 (A) National Income of the country (B) Average income of per Individual
 (C) Income of different state of the country (D) Development rate of the nation
67. What is marital age of girls and boys according to law in India?
 (A) 18 and 21 year (B) 15 and 18 year (C) 20 and 25 year (D) 18 and 20 year
68. The symbol of 'ISI' and 'AGMARK' used for in which aims?
 (A) Manufacturer class of India
 (B) The certification of standard of consumer's item
 (C) To rate fixation of commodities
 (D) For the security of commodities
69. What is the main aim of the economical investment in India?
 (A) To increase the industrial production
 (B) To inhance the national income
 (C) To Growth in employment in rural area
 (D) Justified economical development
70. What is the meaning of Barter system?
 (A) Exchange of a thing for the other
 (B) Exchange the native currency to foreign currency
 (C) Export the commodities
 (D) Import the commodities
71. The radii of two cones of same height are in the ratio 2:3. What will be the ratio of their volumes?
 (A) 9 : 25 (B) 8 : 9 (C) 4 : 9 (D) 27 : 8
72. If $\frac{a}{b} = \frac{7}{4}$ then the value of $\frac{a^2 + b^2}{a^2 - b^2}$ is-
 (A) $\frac{65}{33}$ (B) $\frac{33}{65}$ (C) $\frac{49}{28}$ (D) $\frac{28}{49}$

73. The highest common factor of 95 and 152 is-
 (A) 14440 (B) 152 (C) 95 (D) 19
74. The length of the tangent drawn from a point 10 cm away from the centre of a circle of radius 6 cm is-
 (A) 16 cm (B) 4 cm (C) 8 cm (D) 12 cm
75. Any number added to ten times of itself the summation is 264. The number is-
 (A) 26 (B) 24 (C) 22 (D) 20
76. Sum of all odd numbers between 100 and 200 will be
 (A) 7000 (B) 7500 (C) 8000 (D) 8500
77. In the given figure $\angle ADC = 100^\circ$ then $\angle CBE$ will be-

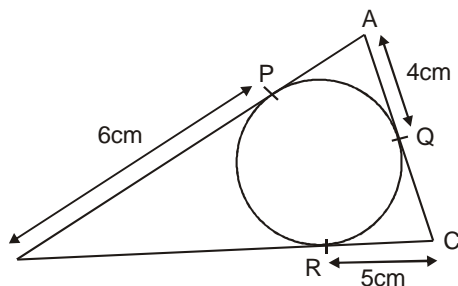


- (A) 95° (B) 100° (C) 105° (D) 110°
78. If $a - b = -4$ and $ab = -6$, $a^3 - b^3$ will be-
 (A) -16 (B) 16 (C) -8 (D) 8
79. O is the centre of circle if $\angle AOC = 90^\circ$ and $\angle AOB = 110^\circ$ then $\angle BAC$ will be-

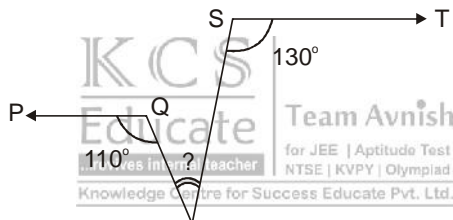


- (A) 200° (B) 160° (C) 130° (D) 80°
80. The height and circumference of a cylinder both are equal to 'h'. In terms of 'h' the volume of the cylinder will be-
 (A) $\frac{h^3}{4\pi}$ (B) $\frac{h^3}{2\pi}$ (C) $\frac{1}{4}\pi h^3$ (D) $\frac{1}{2}\pi h^3$
81. The coordinates of one end point of diameter of a circle are (5, -1) and the coordinates of the centre of circle are (1, -4). The Coordinates of the other end of the diameter will be-
 (A) (-2, -5) (B) (5, -2) (C) (3, -7) (D) (-3, -7)
82. When a dice is thrown once. The probability of getting a number greater than 3 is-
 (A) $\frac{3}{5}$ (B) $\frac{2}{5}$ (C) $\frac{2}{3}$ (D) $\frac{1}{2}$

83. The perimeter of $\triangle ABC$ will be If $BP = 6\text{ cm}$, $AQ = 4\text{ cm}$, $RC = 5\text{ cm}$ -



- (A) 15 cm (B) 30 cm (C) 45 cm (D) 60 cm
84. A vertical stick 20 cm long casts a shadow 10 cm long. At the same time a tower casts a shadow 50 m. The height of the tower is
- (A) 25 metre (B) 50 metre (C) 100 metre (D) 500 cm
85. The value of $9 \sec^2 A - 9 \tan^2 A$ is-
- (A) 9 (B) 8 (C) 1 (D) 0
86. If $PQ \parallel ST$, $\angle RST = 130^\circ$ then $\angle QRS$ is.



- (A) 70° (B) 60° (C) 50° (D) 20°
87. The median of first 10 prime number is-
- (A) 9 (B) 11 (C) 12 (D) 13
88. If mean of 6, 7, x, 8, y, 14 is 9 then $x+y$ will be
- (A) 19 (B) 18 (C) 20 (D) 22
89. If $\sin 4\theta = \cos(\theta + 15)$ then value of θ will be (4θ and $\theta + 15$ are acute angle)
- (A) 15° (B) 20° (C) 18° (D) 21°
90. If $x = 3$ and $y = 6$ then-

$$\left(\frac{x}{y}\right)^{x-y} + \left(\frac{y}{x}\right)^{y-x} \text{ is}$$

- (A) 8 (B) 12 (C) 16 (D) $\frac{65}{8}$

ANSWERS

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

Director's Message:

Life is basically learning not suffering. As much we practice in our life we make ourselves stronger and stronger. There is an internal teacher inside everybody, if it revives then learning is smooth and fun. Everybody has something different from the others, try to find that and then see life is full of enjoyment.



Mr. Avnish Kr. Saxena
Founder Director

Learning is like an unending process, as much as you understand, you are in a better situation to analyze the life. So nothing like how many hours we should study, it is like study as much as possible. I always tell students that don't study like a burden on your shoulders, make your studies fun, enjoy it and live in it. In fact, whatever you are doing in your life, indulge whole life at that moment for that purpose. Live in your dream, feel your target, make a plan with the help of experienced persons & work hard, then nobody can stop you to get the success. Toppers are not different from others, only they do things differently and know how to better their time management.

Success is waiting for you, don't stop my dear students run and catch it.

God Bless You !