

DO NOT OPEN THIS BOOKLET UTILL ASKED TO DO SO

Roll No.:
Maximum Marks: 300
Maximum Time: 90 (+30) minutes


## 

1. The Question Paper comprises of two sections:

Section I: Multiple Intelligence Test (40 questions)
Section II: Scholastic Aptitude Test (100 questions)
Questions in Section I do not carry any marks whereas questions in Section II carry 3 marks each.
2. Duration for Section II of this test shall be 90 minutes. You will get additional 30 minutes to fill up information about yourself on the Answer Sheet and answer questions of Section I before start of the exam.
3. Answering all questions is compulsory in Section I but not in Section II.Section I of the test contains questions that you need to answer truthfully based on your preference. Do not provide fake responses otherwise you will not receive accurate analysis of your intelligence type.
4. Rank will be provided on the basis of Section II. Multiple Intelligence Report shall be provided on the basis of Section I.
5. For incorrect answers (in Section II), 1 mark would be deducted. For unanswered questions, no mark would be awarded or deducted.
6. Use of calculator, mobile phones or log tables is not permitted.
7. Fill the required details clearly on the Answer Sheet and do not overwrite.
8. There is only ONE correct answer. Choose only ONE option for an answer.
9. To mark your choice of answers by darkening the circles in the Answer Sheet, use an HB Pencil only.
10. Rough work should be done in the blank space provided on the last page in the booklet.
11. Return the Answer Sheet to the invigilator at the end of the exam.
12. Write your Roll No. on the Question Paper too.
13. Any use of unfair means in the test will result in termination of the candidature.

## DO NOT OPAN THIS BOOKIET ONTL ASK:D TO DO SO

## SECTION-II : SCHOLASTIC APTITUDE

## QUESTIONS 1 TO 30: MATHEMATIGS

1. The number is
(A) rational
(B) irrational
(C) both
(D) can't say
2. If and then
(A) 34
(B) 34
(C)
(D)
3. The biggest among the following is
(A) $21 / 2$
(B) $31 / 3$
(C) $61 / 6$
(D) $81 / 8$
4. The common quantity that must be added to each term of $\mathrm{a} 2: \mathrm{b} 2$ to make it equal to $\mathrm{a}: \mathrm{b}$ is
(A) ab
(B) $a+b$
(C) $a-b$
(D) $a / b$
5. If $x+y=2013$ and $1 / x+1 / y=2013$, what is the value of $x y$ ?
(A) $1 / 2013$
(B) 4026
(C) 0
(D) 1
6. Abscissa of all the points on $x$-axis is $\qquad$ .
(A) 0
(B) 1
(C) 2
(D) any number
7. The Cartesian system is named in honor of the mathematician $\qquad$ -.
(A) Lesbnitz
(B) Euclid
(C) Rene Descarte
(D) Laplace
8. If we multiply or divide both sides of the linear equations with a non zero number, then the solution of the linear equation :
(A) Changes
(B) Remains the same
(C) changes in case of multiplication only
(D) changes in case of division only
9. If the line $a x+b y+c=0$ is parallel to $x$-axis, then which of the following relations is correct?
(A) $a=0$
(B) $b=0$
(C) $c=0$
(D) $a=b$
10. It is known that if $x+y=10$, then $x+y+z=10+z$. The Euclid's axiom that illustrates this statement is:
(A) 1st Axiom
(B) 2nd Axiom
(C) 3rd Axiom
(D) 4th Axiom
11. Which of the following needs a proof?
(A) Theorem
(B) Axiom
(C) Definition
(D) Postulate
12. One angle forming a linear pair is twice the other. The larger is
(A) $160^{\circ}$
(B) $60^{\circ}$
(C) $120^{\circ}$
(D) None of these
13. In figure, if $\mathrm{AB}\|\mathrm{DF}, \mathrm{AD}\| \mathrm{FG}, \angle \mathrm{BAC}=65^{\circ}$, $\angle \mathrm{ACB}=55^{\circ}, \angle \mathrm{FGH}$ is :

(A) $65^{\circ}$
(B) $55^{\circ}$
(C) $125^{\circ}$
(D) $115^{\circ}$
14. In the following figure, ABCD is a parallelogram in which $\angle \mathrm{A}=60^{\circ}$. If the bisectors of $\angle \mathrm{A}$ and $\angle \mathrm{B}$ meet at P , then $\angle \mathrm{APB}=$

(A) $60^{\circ}$
(B) $30^{\circ}$
(C) $120^{\circ}$
(D) $90^{\circ}$
15. $P Q R S$ is a cyclic quadrilateral in which $P Q \| R S$, $\angle \mathrm{Q}=65^{\circ}$ then other angles are:
(A) $70^{\circ}, 80^{\circ}, 120^{\circ}$
(B) $115^{\circ}, 115^{\circ}, 65^{\circ}$
(C) $110^{\circ}, 70^{\circ}, 80^{\circ}$
(D) None of these
16. In the given figure $\mathrm{AB} \| \mathrm{DE}$ and area of the parallelogram $A B F D$ is $24 \mathrm{~cm}^{2}$. Find the area of $\Delta \mathrm{AFB}, \triangle \mathrm{AGB}$ and $\triangle \mathrm{AEB}$.
(A) $8 \mathrm{~cm}^{2}$
(B) $12 \mathrm{~cm}^{2}$
(C) $10 \mathrm{~cm}^{2}$
(D) $14 \mathrm{~cm}^{2}$

17. Use the following information to answer the next question. In the given figure, D and $P$ are the midpoints of $A C$ and $D C$ respectively. If the area of the shaded portion is $12 \mathrm{~cm}^{2}$, then what is the area of $\triangle \mathrm{ABC}$ ?
(A) $24 \mathrm{~cm}^{2}$
(B) $36 \mathrm{~cm}^{2}$
(C) $48 \mathrm{~cm}^{2}$
(D) $72 \mathrm{~cm}^{2}$

18. If two circles touch each other internally then the distance between their centres is equal to
(A) sum of their radii
(B) difference of their radii
(C) product of their radii
(D) smaller of two radii
19. Chords $M N$ and $R S$ of a circle intersect at $P$ outside the circle. If $\mathrm{PN}=3 \mathrm{~cm}, \mathrm{MN}=5$
$\mathrm{cm}, \mathrm{PR}=2 \mathrm{~cm}$, then the value of SR is equal to
(A) 5 cm
(B) 8 cm
(C) 15 cm
(D) 10 cm

20. The area of quadrilateral ABCD in which $\mathrm{AB}=7$ $\mathrm{cm}, \mathrm{BC}=6 \mathrm{~cm}, \mathrm{CD}=12 \mathrm{~cm}, \mathrm{DA}=15 \mathrm{~cm}$ and AC $=9 \mathrm{~cm}$ is:
(A) $77.57 \mathrm{~cm}^{2}$
(B) $72.68 \mathrm{~cm}^{2}$
(C) $74.98 \mathrm{~cm}^{2}$
(D) $75.64 \mathrm{~cm}^{2}$
21. The lengths of the sides of a triangle are in the ratio 3: 4: 5 and its perimeter is 144 cm . The area of the triangle is:
(A) $864 \mathrm{~cm}^{2}$
(B) $854 \mathrm{~cm}^{2}$
(C) $816 \mathrm{~cm}^{2}$
(D) $873 \mathrm{~cm}^{2}$
22. If the area of one face of the cube is 1.5 times its perimeter, the volume (in $\mathrm{cm}^{3}$ ) of the cube is
(A) 125
(B) 144
(C) 216
(D) 312
23. If the height and the radius of the cone are doubled, then the volume of the cone becomes
(A) 3 times
(B) 4 times
(C) 6 times
(D) 8 times
24. How many lines of symmetry does a Rhombus have?
(A) 1
(B) 4
(C) 2
(D) 8
25. The median from the ogive curve can be determined by the point on :
(A) $x-y$ axis
(B) origin
(C) y-axis
(D) none of these
26. The mean of the following distribution is

| Class | $0-5$ | $5-10$ | $10-15$ | $15-20$ | $20-25$ | $25-30$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Freq. | 4 | 5 | 7 | 12 | 7 | 5 |

(A) 15
(B) 16
(C) 17
(D) 18
27. If a dice is rolled then find the probability that number shown on top of dice is less than 7 and greater than 0 .
(A) 0
(B) 1
(C) 0.5
(D) 0.75
28. A card is drawn at random from a deck of cards. Find the probability of getting the 3 of diamond.
(A) $3 / 52$
(B) $2 / 52$
(C) $1 / 52$
(D) $4 / 52$
29. The C.P. of 21 articles is equal to S.P. of 18 articles. Find the gain or loss percent.
(A) $16 \%$
(B) $8 \%$
(C) $10 \%$
(D) $12 \%$
30. The difference between compound interest and simple interest for 2 years on RS. 500 at $10 \%$ p.a. is
(A) RS 0
(B) RS 5
(C) RS 10
(D) RS 15
31. Examples of vector quantities are:
(A) velocity, length and mass
(B) speed, length and mass
(C) time, displacement and mass
(D) velocity, displacement and force
32. A body starts falling from height ' $h$ ' and travels distance $h / 2$ during the last second of motion. The time of travel (in sec) is :
(A) -1
(B) $2+$
(C)
(D) +2
33. The velocity-time graph of a body moving in a straight line is shown in figure. The displacement and distance travelled by the body in 6 seconds are respectively-
(A) $8 \mathrm{~m}, 16 \mathrm{~m}$
(B) $16 \mathrm{~m}, 8 \mathrm{~m}$
(C) $16 \mathrm{~m}, 16 \mathrm{~m}$
(D) $8 \mathrm{~m}, 8 \mathrm{~m}$

34. Newton's second law of motion is:
(A) qualitative
(B) quantitative
(C) both qualitative and quantitative
(D) neither qualitative nor quantitative
35. A body of mass 20 kg moves with an acceleration of $2 \mathrm{~ms}-2$. The rate of change of momentum in S.I. unit is :
(A) 40
(B) 10
(C) 4
(D) 1
36. When a space ship is at a distance of two earths radius from the centre of the earth, the gravitational acceleration is
(A) $19.6 \mathrm{~ms}^{-2}$
(B) $9.8 \mathrm{~ms}^{-2}$
(C) $4.9 \mathrm{~ms}^{-2}$
(D) $2.45 \mathrm{~ms}^{-2}$
37. A body floats with $1 / 3$ rd of its volume outside water and 3/4th of its volume outside liquid, then the density of liquid is :
(A) $\mathrm{g} / \mathrm{cm}^{3}$
(B) $0.5 \mathrm{~g} / \mathrm{cm}^{3}$
(C) $\mathrm{g} / \mathrm{cm}^{3}$
(D) $\mathrm{g} / \mathrm{cm}^{3}$
38. Two bodies of mass 1 kg and 4 kg possess equal momentum. The ratio of their K.E.:
(A) $4: 1$
(B) $1: 4$
(C) $2: 1$
(D) $1: 2$
39. A sonar echo takes 4.4 s to return from a submarine. If the speed of sound in water is $1500 \mathrm{~ms}^{-1}$, the distance of submarine from the sonar is
(A) 1500 m (B) 3000 m
(C*) 3300 m
(D) 3600 m
40. The equipment (device) used for locating the position and distance of an object inside sea, using ultrasound is called-
(A) Pukar
(B) Upkar
(C) Radar
(D) Sonar
41. Which of the following statements does not go with the liquid state?
(A) Particles are loosely packed in the liquid state.
(B) Fluidity is the maximum in the liquid state.
(C) Liquids can be compressed.
(D) Liquids take up the shape of any container in which these are placed.
42. Pressure of air at sea level is-
(A) one atmosphere
(B) 76 cm of Hg
(C) 760 mm of Hg
(D) All of these
43. Two elements $A$ (atm. wt. 75) and B (atm wt. 16) combine to yield a compound, the percentage by weight of $A$ in the compound was found to be 75.08. The formula of the compound is-
(A) AB
(B) $\mathrm{AB}_{2}$
(C) $\mathrm{A}_{2} \mathrm{~B}$
(D) $\mathrm{A}_{2} \mathrm{~B}_{3}$
44. Which of the following is the formula of nitrate ion?
(A) $\mathrm{N}^{3}$ -
(B) $\mathrm{NO}_{3}{ }^{-}$
(C) $\mathrm{NO}^{+}$
(D) $\mathrm{NO}_{2}+$
45. In an atom there are four orbits, the maximum number of electrons in this atom will be
(A) 30
(B) 32
(C) 36
(D) 62
46. An isotone of Ge is
(A) Ge
(B) As
(C) Se
(D) Se
47. Mixture of zinc dust and dry ice can be purified by-
(A) distillation
(B) filtration
(C) sublimation
(D) sedimentation
48. The particle size of solute in true solution is of the order of -
(A) $10^{-6} \mathrm{~m}$
(B) $10^{-7} \mathrm{~m}$
(C) $10^{-8} \mathrm{~m}$
(D) $10^{-9} \mathrm{~m}$
49. The melting point temperature of the solid state of a substance is $40^{\circ} \mathrm{C}$. The freezing point temperature of the liquid state of the same substance will be :
(A) $35^{\circ} \mathrm{C}$
(B) $40^{\circ} \mathrm{C}$
(C) $45^{\circ} \mathrm{C}$
(D) can't predict
50. Which of the following would weigh the highest?
(A) 0.2 mole of sucrose $(\mathrm{C} 12 \mathrm{H} 22 \mathrm{O} 11)$
(B) 20moles of water
(C) 2 moles of CaCO 3
(D) 10 moles ofH2O
51. Which of the following organelles would not be found in a plant cell?
(A) Chloroplast
(B) DNA
(C) Food vacuole
(D) Cellmembrane
52. Thickness of plasma membrane (unit membrane) is
(A) $75 \AA$
(B) $100 \AA$
(C) $125 \AA$
(D) $150 \AA$
53. Parenchyma has
(A) intercellular spaces and uniform thickening
(B) deposition on corners
(C) deposition on angles
(D) deposition in form of bands
54. Squamous epitheliumis found in
(A) trachea
(B) lungalveoli
(C) alimentary canal
(D) oviduct
55. Which of the followings are correct order of hierarchy?
(A*) Kingdom, division, phylum, genus and species
(B) Phylum, division, genus and class
(C) Kingdom, genus, class, phylum and division
(D) Phylum, kingdom, genus, species and class
56. Who was the first to describe that species is the unit of classification?
(A) Candolle
(B) Huxley
(C) Linnaeus
(D) John Ray
57. The ' B ' and ' T '-cells that are critical for immune system are produced in-
(A) Bone morrow cells
(B) Spleen
(C) Lymph nodes
(D) Bone marrow and Thymus
58. AIDS is caused by
(A) blood cancer
(B) HTLV-III
(C) bacterium
(D) TMV
59. Which of the following is a Rabi cereal?
(A) Bajra
(B) Jawar
(C) Wheat
(D) All the above
60. Cycling of elements in an ecosystem is called?
(A) Chemical cycle
(B) Geochemical cycle
(C) Biogeochemical cycle
(D) Geological cycle

## |IIIII QUESTIONS 61 T0 80: LOCIGIL REASONING

Direction (61-62): In the figure given below, there are three intersecting circles each representing certain section of people. Different regions are marked a-g. Read the statements in each of the following questions and choose the letter of the region which correctly represents the statements.

61. Painters who are neither Chinese nor musicians
(A) b
(B) c
(C) f
(D) $g$
62. Chinese who are painters as well as musicians
(A) a
(B) b
(C) c
(D) d
63. Rohan ranks seventh from the top and twentysixth from the bottom in a class. How many students are there in the class?
(A) 31
(B) 32
(C) 33
(D) 34
64. How many 3 s are there in the following sequence which are neither preceded by 6 nor immediately followed by 9 ?
9366395937891639639
(A) One
(B) two
(C) Three
(D) Four
65. In each of the following questions, choose the correct mirror-image of the Fig. (X) From amongst the four alternatives $1,2,3$ and 4 given along with it. The mirror represented by a line $\mathrm{M}_{1} \mathrm{M}_{2}$


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

Directions (66-68): Study the following information carefully and answer the questions below. A team of five is to be selected from amongst five boys $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ and E and four girls P , Q, R and S.

## Some criteria for selection are -

$A$ and $S$ have to be together
$P$ cannot be put with $R$.
D and Q cannot go together.
C and E have to be together.
R cannot be put with $B$.
Unless otherwise started, these criteria are applicable to all questions below
66. If two of the members have to be boys, the team will consist of
(A) ABSPQ
(B) ADSQR
(C) BDSRQ
(D) CESPQ
67. If two of the members are girls and D is one of the members, the members of the team other than D are
(A) PQBC
(B) PQCE
(C) PSAB
(D) PSCE
68. If including $P$ at least three members are girls, the members of the team other than P are
(A) QSAB
(B) QSBD
(C) QSCE
(D) RSAD
69. Study the three dices given below. What number will be opposite to the side bearing number 2 ?
(A) 4
(B) 3
(C) 6
(D) 5
70. Find the term which does not fit into the series given below.
G4T, J10R, M20P, P43N, S90L
(A) G4T
(B) J10R
(C) M20P
(D) P43N
71. In each of the following questions, one term in the number series is wrong.
Find out the wrong term.
$6,15,35,77,165,221$
(A) 35
(B) 77
(C) 165
(D) 221
72. In each of the following questions, one term in the number series is wrong.
Find out the wrong term.
2, 6, 24, 96, 285, 568, 567
(A) 6
(B) 24
(C) 285
(D) 567
73. Find the missing term.
$1,3,12,27$, ?
(A) 90
(B) 73
(C) 48
(D) 36
74. Find the missing term.
$1,3,10,21,64,129,388$, ?
(A) 776
(B) 777
(C) 1164
(D) 1165
75. The following questions consist of two words each that have a certain relationship to each other, followed by four lettered pairs of words. Select the lettered pair that has the same relationship as the original pair of words.
Circle : Diameter
(A) Rectangle : Diagonal
(B) Diameter : Radius
(C) Square : Rectangle
(D) Bisector : Angle
76. In each of the following questions, choose that set of numbers from the four alternative sets, that is similar to the given set.
Given set : $(6,36,63)$
(A) $(7,49,98)$
(B) $(8,64,46)$
(C) $(9,84,45)$
(D) $(11,111,84)$
77. In each of the following questions, five groups of letters are given. One of these groups is different from the other four. Find the odd one.
(A) ECBFD
(B) LQPOM
(C) WSVTU
(D) ROQNP
78. In each of the following questions, five groups of letters are given. One of these groups is different from the other four. Find the odd one.
(A) Kiwi
(B) Penguin
(C) Emu
(D) Eagle
79. Each of the following questions consists of five figures marked A, B,C, D and E called the Problem Figures. Select a figure from amongst the Answer Figure which will continue the same series as established by the five Problem Figures.

(A) 1
(B) 2
(C) 3
(D) 4
80. Each of the following questions consists of five figures marked $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ and E called the Problem Figures. Select a figure from amongst the Answer Figure which will continue the same series as established by the five Problem Figures.

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

## ||l||| <br> 81. The SKILLS 2015 - International Conference will be held in which city?

## QUESTIONS 81 TO 100: GENERAI WNOWIEDCE

(A) Jaipur
(B) Bangalore
(C) Ahmedabad
(D) Hyderabad
82. 'Ek Kadam Unnati Ki Aur' campaign is launched by which company in Telangana state?
(A) Infosys
(B) Intel
(C) Flipkart
(D) Wipro
83. India's first mega silk cluster will come up in which Indian state?
(A) Assam
(B) Karnataka
(C) West Bengal
(D) Andhra Pradesh
84. Which day is observed as the International Day of Persons with Disabilities?
(A) November 17
(B) November 20
(C) November 26
(D) December 3
85. What is WT1190F?
(A) Humanoid Robot
(B) Space Junk
(C) Super Computer
(D) A Type of Virus
86. What is the India's rank in 2015 Global Hunger Index (GHI) report?
(A) 55
(B) 65
(C) 70
(D) 80
87. The term 'Doha Round of Negotiations', is related to which of the following organisations?
(A) G20
(B) IAEA
(C) WTO
(D) ASEAN
88. What is the India's rank in Global Gender Gap Index for 2015?
(A) 75
(B) 90
(C) 99
(D) 108
89. ICFT- UNESCO Fellini Prize is related to which one of the following fields?
(A) Architecture
(B) Films
(C) Literature
(D) Science
90. Satellite EKS Kosmos-2510 was launched by which one of the following countries?
(A) Japan
(B) South Korea
(C) North Korea
(D) Russia
91. What is GJ1132b?
(A) Super Computer
(B) Exoplanet
(C) Satellite
(D) Electronic Chip
92. Who was the author of the book 'Inside IB and RAW: The Rolling Stone That Gathered Moss'?
(A) Ashok Chaturvedi
(B) Vikram Sood
(C) Shankaran Nair
(D) K C Verma
93. 'Basel-III reforms' are related to which of the following?
(A) Banking
(B) Environment
(C) Sustainable development
(D) Disaster management
94. Who among the following Indian personalities is the co-author of the released book 'The Great Indian Diet'?
(A) Shilpa Shetty
(B) Amitabh Bachhan
(C) Daboo Malik
(D) Mahesh Bhatt
95. 'World Chronic Obstructive Pulmonary Disease Day' for Year 2015 was observed on which date?
(A) 16 November
(B) 17 November
(C) 18 November
(D) 19 November
96. What is the India's rank in the Global Terrorism Index (GTI) 2015?
(A) 4th
(B) 6 th
(C) 8 th
(D) 10 th
97. On which date, World Fisheries Day is observed?
(A) November 15
(B) November 17
(C) November 19
(D) November 21
98. In context to the Indian defence system, 'Nishant' refers to which one of the following?
(A) Torpedo Defence System
(B) Intercontinental Ballistic Missile
(C) Unmanned Aerial Vehicle
(D) Autonomous Underwater Vehicle
99. Which country hosted the 2015 ASEAN summit?
(A) Singapore
(B) Indonesia
(C) Vietnam
(D) Malaysia
100. Who has won the 2015 Reporters without

Borders Prize?
(A) Nizar Nayyouf
(B) Zaina Erhaim
(C) Wang Juntao
(D) Reza Alijani

## ROUGH WORK

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## SEASON 10

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## IDENTIFYING THE RIGHT CAREER





## 

## General Instructions for Candidates

1. Read all instructions carefully. This Question Paper comprises of two sections: Section I: Multiple Intelligence Test (40 questions) [20 minutes] Section II: Scholastic Aptitude Test (60 questions) [90 minutes]
2. Write Your Roll Number on the box provided above and in OMR Sheet.
3. 10 Min will be provided to fill the OMR Sheet before the start of Exam.
4. Students must fill all the personal details carefully in the OMR Sheet
5. Read all the instruction on OMR sheet as well before start of exam. Instructions for Section I
6. Students will be allocated maximum of 20 min to complete this section.
7. Questions in Section I do not carry any marks.
8. Answering all questions in Section I is compulsory.
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10. Multiple Intelligence Report shall be provided on the basis of Section I.

## Instructions for Section II

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17. Ensure all personal details are filled in OMR Sheet before starting the exam.

## APTITUDE TEST

- MATHEMATICS
- LOGICAL REASONING

SCIENCE

- GENERAL KNOWLEDGE


## MUTITPIE NTIELICENGE TEST

## Section-I: Multiple Intelligence Test

Directions: ( 1 to 35) These are general statements.
You have to mark options A, B, C or D in the OMR sheet as per your preference.
A = Mostly Disagree
B = Slightly Disagree
C = Slightly Agree
D = Mostly Agree

1. I enjoy word games like Scrabble and crossword puzzles.
2. I can easily add numbers in my head.
3. People say I have a good singing voice.
4. I like to listen to someone read a story aloud.
5. I like to spend time alone.
6. I use my hands a lot when talking or describing something.
7. I prefer books that have lots of pictures.
8. The best thing about school is getting to be with my friends all day.
9. I know a song after hearing it only once or twice.
10. I enjoy doing experiments.
11. It's easy for me to write 150 words or more for an essay.
12. I enjoy board games such as chess or checkers.
13. I study better if music is playing.
14. I like to act things out.
15. I enjoy making things with clay or play dough.
16. I have more than one favorite teacher.
17. I like school activities to follow the same order each day.
18. I listen to music on radio, cassettes, or CD's often.
19. I doodle or draw often during class.
20. Reading charts, maps, and graphs is easy.
21. I know what I want to be when I grow up and what I need to do to become it.
22. I have a secret place.
23. English and Social Studies are my best subjects.
24. I automatically tap my feet or hands along with music.
25. It's easy for me to remember names.
26. My friends ask me to help them with their prob lems.
27. I like to watch TV or movies.
28. I love to run, jump, or dance.
29. Math and Science are my best subjects.
30. I like to play games with other people.
31. I like art activities.
32. I have 2 or more "best" friends.
33. Adults say I'm stubborn or strong-willed.
34. It's hard to sit still for long periods of time.
35. I like to do my work alone.

Directions : ( 36 to 40) These are general statements. You have to mark options A, B, C or D in the OMR sheet as per your preference.

$$
\begin{aligned}
& \text { A }=\text { Very Frequently } \\
& \text { B }=\text { Occasionally } \\
& \text { C }=\text { Rarely } \\
& \text { D }=\text { Very Rarely }
\end{aligned}
$$

36. I use computer.
37. I use internet for studies.
38. I play games on computer.
39. I watch movies on computer.
40. I wish to use computers for overall knowledge enhancement.
41. The three rational numbers between 3 and 4 are:
(A) $5 / 2,6 / 2,7 / 2$
(B) $13 / 4,14 / 4,15 / 4$
(C) $12 / 7,13 / 7,14 / 7$
(D) $11 / 4,12 / 4,13 / 4$
42. $\sqrt{ } 9$ is a $\qquad$ number.
(A) Rational
(B) Irrational
(C) Neither Rational nor Irrational
(D) None of the above
43. Find $\mathrm{p}(0), \mathrm{p}(1)$ and $\mathrm{p}(2)$ of the following polynomials: $\mathrm{p}(\mathrm{t})=\mathrm{t} 3+5 \mathrm{t} 2-3 \mathrm{t}-2$
(A) $-2,1,-20$
(B) $-2,1,20$
(C) $2,-1,-20$
(D) $2,1,20$
44. Geeta's age is 3 years more than thrice $m$, the age of Meeta. Write an equation of first degree to display this information.
(A) $g+3=3 \mathrm{~m}$
(B) $\mathrm{g}-3=3 \mathrm{~m}$
(C) $g+3 m+3=0$
(D) $\mathrm{g}-3 \mathrm{~m}+3=0$
45. Which among these is the relation between whole and the part?
(A) $\mathrm{W}<$ P
(B) $\mathrm{W}>\mathrm{P}$
(C) $\mathrm{W}=\mathrm{P}$
(D) None of these
46. If B lies on line AC and points $\mathrm{A}, \mathrm{B}$ and C are distinct such that, $A B+B C=A C$, then
(A) $\mathrm{AB}<\mathrm{AC}$
(B) $\mathrm{AB}>\mathrm{AC}$
(C) $\mathrm{AB}=\mathrm{AC}$
(D) None of these
47. ABCD is a parallelogram, if the two diagonals are equal, then by what criterion are the triangles ABD and $A B C$ congruent

(A) AAS
(B) SSS
(C) SAS
(D) RHS
48. PQRS is a parallelogram, if the two diagonals are equal, then the measure of DPQR is:
(A) $30^{\circ}$
(B) $90^{\circ}$
(C) $60^{\circ}$
(D) $120^{\circ}$
49. Which of the following is not a parallelogram?
(A) Rectangle
(B) Trapezium
(C) Rhombus
(D) Square
50. A triangular park ABC has sides $120 \mathrm{~m}, 80 \mathrm{~m}$ and 50 m . A gardener, Dhania has to put a fence all around it and also plant grass inside. The area required and the cost of fencing it with barbed wire at the rate of Rs. 20 per metre leaving a space 3 m wide for a gate on one side will be
(A) $275 \sqrt{15 \mathrm{~m}^{2}}, 4897$
(B) $275 \sqrt{15 \mathrm{~m}^{2}}, 4490$
(C) $375 \sqrt{15 \mathrm{~m}^{2}}, 4940$
(D) $275 \sqrt{15 \mathrm{~m}^{2}}, 5263$
51. The area of triangle, whose sides are $15 \mathrm{~cm}, 25 \mathrm{~cm}$ and 14 cm :
(A) $18 \sqrt{26 \mathrm{~cm}^{2}}$
(B) $15 \sqrt{29 \mathrm{~cm}^{2}}$
(C) $17 \sqrt{23 \mathrm{~cm}^{2}}$
(D) $20 \sqrt{26 \mathrm{~cm}^{2}}$
52. The area of a right triangle with base 5 m and altitude 12 m is
(A) $15 \mathrm{~m}^{2}$
(B) $9 \mathrm{~m}^{2}$
(C) $50 \mathrm{~m}^{2}$
(D) $30 \mathrm{~m}^{2}$
53. A frequency distribution is defined as
(A) distribution with tally marks
(B) a rough arrangement of data
(C) tabular arrangement of data by classes together with the corresponding class frequencies
(D) arrangement of frequencies with class size
54. Number of runs scored by a cricket player in 25 innings are as follows:
$26,35,94,48,82,105,53,0,39,42,71,0,64,15$, $34,67,0,42,124,84,54,48,139,64,47$.
The number of centuries scored by him is
(A) 1
(B) 3
(C) 5
(D) 0
55. In the following data, the number of class intervals, (by inclusive method), and taking 4 as the magnitude of class intervals will be
$31,23,19,29,22,20,16,10,13,34$
$38,33,28,21,15,18,36,24,18,15$
$12,30,27,23,20,17,14,32,26,25$
$18,29,24,19,16,11,22,15,17,10$
(A) 10
(B) 7
(C) 8
(D) 9
56. The decimal expansions that correspond to rational numbers is.
(A) Terminating
(B) Recurring
(C) Either terminating or recurring
(D) Both terminating and r recurring
57. The ratio of the sum of observations and the total number of observations is called:
(A) Mean
(B) Median
(C) Mode
(D) Central tendency
58. The median of the data: $155,160,145,149,150$, $147,152,144,148$ is
(A) 149
(B) 150
(C) 147
(D) 144
59. The sides of a triangle are $122 \mathrm{~m}, 22 \mathrm{~m}$ and 120 m respectively. The area of the triangle is:
(A) 1320 sq.m
(B) $1300 \mathrm{sq} \cdot \mathrm{m}$
(C) 1400 sq.m
(D) $1420 \mathrm{sq} \cdot \mathrm{m}$
60. Two angles whose sum is equal to $180^{\circ}$ are called:
(A) Vertically opposite angles
(B) Complementary angles
(C) Adjacent angles
(D) Supplementary angles

## QUESTIOIS 21 TO 40:SGIENGE

21. Which of the following are the main states of matter?
(A) Liquid, Solid, Foam
(B) Liquid, Gas, Gel
(C) Liquid, Solid, Gas
(D) Liquid, Foam, Gel
22. What is the S.I unit of acceleration?
(A) $\mathrm{m} / \mathrm{s}$
(B) $\mathrm{m} / \mathrm{s} 2$
(C) $\mathrm{m} / \mathrm{s} 3$
(D) ms 2
23. Liquids are called fluids because:
(A) Particles of a liquid have no force of attraction between them.
(B) Particles of a liquid have spaces between them.
(C) Liquids do not fill the whole container in which they are placed.
(D) Liquids can flow.
24. A stream of water cannot be cut by fingers.

(A) Particles of matter attract each other.
(B) Particles of matter have spaces between them.
(C) Particles of matter are continuously moving.
(D) None of the above
25. Look at the figure given below.


The increasing dilution of potassium permanganate solution with water fades the pink colour of the solution. This explains which property of matter?
(A) Matter is indivisible.
(B) Particles of matter are very small.
(C) Particles of matter occupy space.
(D) Particles of matter are in continuous motion.
26. Sponge is a solid yet we are able to compress it. Why?
(A) A sponge is a porous substance in which water is trapped.
(B) A sponge is hollow solid in which air is trapped.
(C) A sponge is a delicate solid in which oxygen gas is trapped.
(D) A sponge is a solid that has minute holes in which air is trapped.
27. When we put a drop of ink in water taken in a glass, it spreads in the water making the water in glass entirely coloured. Which property of matter does it exhibit?
(A) Particles of matter have spaces between them.
(B) Matter consists of large number of particles.
(C) Particles of matter are very small in size.
(D) Particles of matter are continuously moving.
28. What happens when we make tea, coffee or lemonade?
(A) Particles of one type of matter don't get mixed up with particles of other type of matter.
(B) Particles of one type form a layer over another type of matter.
(C) Particles of one type of matter form a covering around the particles of other type of matter.
(D) Particles of one type of matter get into the spaces of the other type of matter.
29. Which of the following state has maximum intermolecular forces of attraction?


Ice


Water


Water vapour
(A) Water
(B) Water vapour
(C) Ice
(D) Same in all states of matter.
30.
is not unicellular organism
(A) Cactus
(C) Paramecium
(B) Chlamydomonas
(C) Parameciun
(D) Bacteria
31. If an object moves 4 km in a straight line then the value of displacement is....
(A) 4 km
(B) 8 km
(C) 12 km
(D) 0 km
32. Which of the following is the example of uniform motion.
(A) Zig-zag motion of butterfly
(B) Motion of aero plane before take off
(C) Motion of periods of soldiers.
(D) Motion of fan after switch off.
33. Newton's first law introduces the concept of --.
(A) Momentum
(B) Inertia
(C) Conservation of energy
(D) Action and reaction
34. The unit of power is -
(A) HP
(B) $\mathrm{J} / \mathrm{S}$
(C) Kilowatt
(D) All of the above
35. The stone of mass 3.5 kg has height of 165 cm . Calculate potential energy contained in that stone.
(A) 52.6 J
(B) 54.6 J
(C) 56.6 J
(D) 58.6 J
36. Newspapers made from $\qquad$
(A) proteins
(B) cellulose
(C) carbohydrates
(D) vitamins
37. White revolution deals with. $\qquad$
(A) Agriculture
(B) Milk production
(C) Indigo production
(D) Rice production
38. Rice, maize, sorghum, provides us $\qquad$ for energy requirement
(A) Proteiens
(B) Crabohydrates
(C) Vitamins
(D) Amino acids
39. The revolution of the electron in a circular orbit is not expected is not expected to be stable.
(A) It is drawback of Dalton
(B) It is drawback Rutherford's
(C) It is drawback Mendeleev's
(D) None of the above
40. Choose incorrect option
(A) Isotope of uranium used as fuel in nuclear reactor
(B) Isotope of cobalt is used in food preservatives
(C) Isotopes of iodine is used for treatment of goitre
(D) Isotope of 'Co' used in the treatment of cancer QUESTIONS 41 TO 5O: LOCHGIL REASONING

Direction (41-42): In the figure given below, there are three intersecting circles each representing certain section of people. Different regions are marked a-g. Read the statements in each of the following questions and choose the letter of the region which correctly represents the statements.

41. Painters who are neither Chinese nor musicians
(A) b
(B) c
(C) f
(D) $g$
42. Chinese who are painters as well as musicians
(A) a
(B) $b$
(C) c
(D) d
43. How many 3 s are there in the following sequence which are neither preceded by 6 nor immediately followed by 9 ?
9366395937891639639
(A) One
(B) two
(C) Three
(D) Four
44. In each of the following questions, choose the correct mirror-image of the Fig. (X) From amongst the four alternatives 1, 2, 3 and 4 given along with it. The mirror represented by a line M1M2

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

Directions (45-47): Study the following information carefully and answer the questions below.
A team of five is to be selected from amongst five boys

## A, B, C, D and E and four girls P, Q, R and S.

## Some criteria for selection are -

A and S have to be together
$P$ cannot be put with R.
D and Q cannot go together.
C and E have to be together.
R cannot be put with B .
Unless otherwise started, these criteria are applicable to all questions below
45. If two of the members have to be boys, the team will consist of
(A) ABSPQ
(B) ADSQR
(C) BDSRQ
(D) CESPQ
46. If two of the members are girls and $D$ is one of the members, the members of the team other than D are
(A) PQBC
(B) PQCE
(C) PSAB
(D) PSCE
47. If including P at least three members are girls, the members of the team other than $P$ are
(A) QSAB
(B) QSBD
(C) QSCE
(D) RSAD
48. Study the three dices given below. What number will be opposite to the side bearing number 2 ?

(A) 4
(B) 3
(C) 6
(D) 5
49. Find the term which does not fit into the series given below.
G4T, J10R, M20P, P43N, S90L
(A) G4T
(B) J10R
(C) M20P
(D) P43N
50. Each of the following questions consists of five figures marked A, B, C, D and E called the Problem Figures. Select a figure from amongst the Answer Figure which will continue the same series as established by the five Problem Figures.

51. 'Great Barrier Reef' is the world's largest coral reef system, located in which country?
(A) Australia
(B) Japan
(C) Indonesia
(D) Philippines
52. UNESCO has suggested adding which city to its list of world heritage centres in danger?
(A) New Delhi
(B) Rome
(C) Venice
(D) Paris
53. Bindeshwar Pathak, who passed away recently, was associated with which field?
(A) Politics
(B) Social Work
(C) Sports
(D) Science
54. Which Union Ministry organised the Swar Dharohar festival?
(A) Ministry of Culture
(B) Ministry of Tourism
(C) Ministry of MSME
(D) Ministry of External Affairs
55. KatiBihu is a festival celebrated in which state/UT?
(A) Arunachal Pradesh
(B) Assam
(C) Kerala
(D) Goa
56. What is the name of the harvest festival celebrated before Makar Sankranti?
(A) Lohri
(B) Majuli
(C) Wangala
(D) Chhath Puja
57. Kala Ghoda Art Festival, which was seen in the news, is held at which city?
(A) New Delhi
(B) Mumbai
(C) Kolkata
(D) Bhopal
58. What is the name of the new chatbot launched by the Unique Identification Authority of India (UIDAI)?
(A) UIDAI Bharat
(B) Aadhaar Mitra
(C) Aadhaar Disha
(D) Aadhaar Prashna
59. Who has been elected as the first female president of Indian Olympic Association (IOA)?
(A) Mary Kom
(B) P T Usha
(C) Karnam Malleswari
(D) Anju George
60. Suryakumar Yadav, who was seen in the news, is associated with which sports?
(A) Chess
(B) Cricket
(C) Badminton
(D) Tennis

