

# SAMPLE TEST PAPER 

## Class VIII



ALLEN Corporate Office:
"SANKALP" CP-6, Indra Vihar, Kota (Rajasthan) INDIA 324005
Call : +91-744-2757575 | Mail : info@allen.ac.in | Website : www.allen.ac.in

Class-VIII

Class-VIII

1. A block of weight 5 N is placed on a horizontal table. A person pushes the block from top by exerting a downward force of 3 N on it. Find the force exerted by the table on the block :

(1) 5 N , downward by the table
(2) 3 N , downward by the table
(3) 8 N , downward by the table
(4) 8 N , upward by the table
2. An object moving at constant velocity must :-
(1) have a net force on it
(2) eventually stop due to gravity
(3) not have any force of gravity on it
(4) have zero net force on it
3. A force of 5 N produces an acceleration of $8 \mathrm{~ms}^{-2}$ on a mass $\mathrm{m}_{1}$ and an acceleration of $24 \mathrm{~ms}^{-2}$ on a mass $\mathrm{m}_{2}$. What acceleration (in $\mathrm{m} \mathrm{s}^{-2}$ ) would the same force provide if both the masses are tied together?
(1) 12
(2) 9
(3) 10
(4) 6
4. A vehicle of 100 kg is moving with a velocity of $5 \mathrm{~m} / \mathrm{s}$. To stop it in $1 / 10 \mathrm{~s}$, the required force in opposite direction is :-
(1) 5000 N
(2) 500 N
(3) 50 N
(4) 1000 N
5. A girl stands on a box having 60 cm length, 40 cm breadth and 20 cm height in three ways. Pressure exerted by the box will be :-
(1) max. when length and breadth form the base
(2) max. when breadth and height form the base
(3) max. when height and length form the base
(4) the same in all the above three cases
6. The two thigh bones (femurs), each of cross-sectional area $10 \mathrm{~cm}^{2}$ support the upper part of a human body of mass 40 kg . Estimate the total pressure sustained by both the femurs.(Given $\mathrm{g}=10 \mathrm{~m} \mathrm{~s}^{-2}$ )
(1) $1 \times 10^{5} \mathrm{~Pa}$
(2) $2 \times 10^{5} \mathrm{~Pa}$
(3) $3 \times 10^{5} \mathrm{~Pa}$
(4) $4 \times 10^{5} \mathrm{~Pa}$
7. Choose correct statement
(1) Force of friction increases if the two surfaces are pressed harder.
(2) Sliding or kinetic friction is smaller than the limiting value of static friction.
(3) Friction increases with weight.
(4) All of the above
8. Which of the following powders is used as a lubricant to reduce friction in machines?
(1) Graphite
(2) Chalk
(3) Sand
(4) Crushed stone
9. Analyse the given statements and choose the correct option :

Statement- I : Static friction is self adjusting force.
Statement-II : The magnitude of static friction is
less than the applied force.
(1) Both Statements are true, Statement-II is the correct explanation of Statement-I.
(2) Both Statements are true, Statement-II is not correct explanation of Statement-I.
(3) Statement-I is true, Statement-II is false.
(4) Statement-I is false, Statement-II is true.
10. The sound waves in a medium are characterised by the :-
(1) linear motion of particles in the medium.
(2) rotatory motion of particles in the medium.
(3) oscillatory motion of particles in the medium.
(4) none of the above
11. Water waves in the sea are observed to have a wavelength of 300 m and a frequency of 0.07 Hz . The speed of these waves is :-
(1) $0.00021 \mathrm{~m} / \mathrm{s}$
(2) $2.1 \mathrm{~m} / \mathrm{s}$
(3) $21 \mathrm{~m} / \mathrm{s}$
(4) $210 \mathrm{~m} / \mathrm{s}$
12. A sound wave has a wavelength of 3.0 m . The distance from a compression center to the adjacent rarefaction center is :-
(1) 0.75 m
(2) 1.5 m
(3) 3.0 m
(4) Need to know wave speed
13. To raise the pitch of a certain piano string, the piano tuner
(1) loosens the string
(2) tightens the string
(3) shortens the string
(4) lengthens the string
14. When a glass rod is rubbed with silk, it :-
(1) Gains electrons from silk
(2) Gives electrons to silk
(3) Gains protons from silk
(4) Gives protons to silk
15. Current in a conductor is due to :-
(1) motion of free electrons in it
(2) motion of positive ions in it
(3) motion of negative ions
(4) motion of protons
16. A total charge of 90 Coulombs flows in a conductor during a time of 5 minutes. What is the strength of current in the conductor?
(1) 0.3 A
(2) 3.33 A
(3) 0.055 A
(4) 18 A
17. Observe the circuit shown below :


Identify the bulbs that glow when switch is in the 'OFF' position?
(1) P and $Q$ only
(2) Only S
(3) R and S only
(4) None of the bulbs glow
18. A conductor carries a current of 2 A . How long will it take for 1800 C of electricity to flow through a given cross-section?
(1) 15 min
(2) 10 min
(3) 5 min
(4) 1 min
19. Observe the following diagrams of two sound wave -



Which of the following is correct regarding sound 2 -
(1) it's pitch is lower but loudness is higher than sound 1
(2) its pitch is higher but loudness is lower than sound 1
(3) its pitch is equal to sound 1 but its loudness is greater
(4) its loudness is equal to sound 1 but its pitch is higher
20. Which of the following represents the currect relatineship among the wave speed, frequency and the wavelength of a wave-
(1) $\mathrm{f}=\mathrm{v} \lambda$
(2) $v=f \lambda$
(3) $v=\frac{f}{\lambda}$
(4) $f=\frac{\lambda}{v}$
21. Which of the following best describes the image formation by a plane mirror?
(1) A real image is formed in front of the mirror
(2) A real image is formed behind the mirror
(3) A virtual image is formed in front of the mirror
(4) A virtual image is formed behind the mirror
22. During normal incidence of light
(1) Angle of incidence is $90^{\circ}$
(2) Angle of incidence is $0^{\circ}$
(3) Sum of angle of incidence and angle of reflection is $90^{\circ}$
(4) Angle of incidence is greater than angle of reflection
23. The image of an object formed on the retina of the eye is
(1) Virtual and erect
(2) Real and erect
(3) Real and inverted
(4) Virtual and inverted
24. The maximum force of friction when the body is just begining to move is known as the
(1) limiting friction
(2) rolling friction
(3) kinetic friction
(4) (1) and (2) both
25. It is difficult to walk on ice because of
(1) absence of friction
(2) absence of inertia
(3) more inertia
(4) more friction
26. Which is a natural polymer?
(1) Cellulose
(2) Nylon
(3) Acrylic
(4) Polyster
27. Which is a natural material?
(1) Marble
(2) Plastic
(3) Polethene
(4) None
28. Which of the following fibre also known as artificial silk?
(1) Nylon
(2) Polyster
(3) Rayon
(4) Teflon
29. $\ldots$ is an example of natural fibre.
(1) Nylon
(2) Rayon
(3) Jute
(4) Terylene
30. Surgical bandages are made of :-
(1) Rayon
(2) Nylon
(3) Polyster
(4) Wool
31. Monomer unit of Nylon are $\qquad$ .
(1) Adipic acid
(2) Hexamethylene diamine
(3) Both (1) \& (2)
(4) None of these
32. When sulphur reacts with oxygen, the oxide formed is $\qquad$ in nature.
(1) alkaline
(2) neutral
(3) basic
(4) acidic
33. Metals like zinc and aluminium react with sodium hydroxide to produce $\qquad$ gas.
(1) hydrogen
(2) hydrogen sulphide
(3) oxygen
(4) sulphur dioxide
34. The property by which metals can be beaten into sheets is known as $\qquad$
(1) ductility
(2) sonority
(3) lusture
(4) malleability
35. When MgO is dissolved in water, $\mathrm{Mg}(\mathrm{OH}) 2$ is obtained. The solution thus obtained is $\qquad$ in nature.
(1) amphoteric
(2) alkaline
(3) neutral
(4) acidic
36. Which of the following metals does not react even with steam.?
(1) Silver
(2) Iron
(3) Calcium
(4) Sodium
37. The most reactive metal is:
(1) Iron
(2) Gold
(3) Zinc
(4) Potassium
38. The metal which can be cut with a knife
(1) Sodium and potassium
(2) Barium and calcium
(3) Sodium and mercury
(4) Potassium and calcium.
39. The metal which is stored in kerosene:
(1) Phosphorus
(2) Magnesium
(3) Sodium
(4) Magnesium
40. Which non-metals have semi-conductor property?
(1) Boron
(2) Carbon
(3) Silicon
(4) Magnesium
41. A How is coke superior than coal as a fuel?
(1) Coal is a mineral and burns releasing smoke while coke is a residue.
(2) Coal is an impure form of carbon, while coke is a pure form of carbon.
(3) Only coal consists of atoms of carbon, hydrogen, oxygen and sulphur while coke mainly consists of carbon.
(4) All of the above
42. Which of the following is in descending order of the quality of coal?
(1) Peat $>$ bituminous $>$ lignite $>$ anthracite
(2) Bituminous $>$ peat $>$ lignite $>$ anthracite
(3) Anthracite $>$ bituminous $>$ lignite $>$ peat
(4) Lignite $>$ anthracite $>$ bituminous $>$ peat
43. Which of the following is an example of a liquid fuel?
(1) Paraffin wax
(2) Coal gas
(3) LP.G.
(4) Alcohol
44. Which of the following statements are correct?
(I) Coal, petroleum and natural gas are called fossil fuels.
(II) Coal and natural gas are exhaustible substances.
(III) CNG is more polluting than petrol.
(IV) Coke is used in the manufacture of steel.
(1) I and II only
(2) II and IV only
(3) I, III and IV only
(4) I, II and IV only
45. Destructive distillation of coal is carried out by heating coal strongly to $1000^{\circ} \mathrm{C}$ in the absence of air. The various useful products obtained are :-
(1) Crude oil, kerosene, naphtha and heavy oil
(2) Coke, coal gas, coal tar and ammonium compounds
(3) Coal gas, petroleum gas and lignite
(4) None of these.
46. Read the given passage and fill in the blanks by choosing an appropriate option.

The process of conversion of wood into coal is called :
(i) There are 4 varieties of coal which vary in their carbon content.
(ii) has upto 95 per cent of carbon
(iii) has about 65 per cent carbon while
(iv) has about $30 \mathrm{KJ} / \mathrm{gm}$ calorific value
(1) (i) Destructive distillation (ii) Lignite (iii) Anthracite (iv) Bituminous coal
(2) (i) Carbonisation (ii) Anthracite (iii) Lignite (iv) Bituminous coal
(3) (i) Carbonisation (ii) Anthracite (iii) Bituminous (iv) Lignite coal
(4) (i) Destructive distillation (ii) Bituminous (iii) Anthracite (iv) Lignite coal
47. Select the incorrect statements among the following :
(i) Bitumen is used for metalling the roads.
(ii) Some inexhaustible natural resources like coal, petroleum and natural gas formed from the dead remains of living organisms are known as fossil fuels.
(iii) Many useful substances are obtained from coal, so it is also called as 'Black gold'.
(iv) Ammonical liquor is used manufacture of fertilisers.
(1) (i) and (ii) only
(2) (ii) and (iii) only
(3) (ii) and (iv) only
(4) (i), (ii) and (iv) only
48. Coal tar can be used as a starting material for manufacturing :
(i) Drugs
(ii) Cosmetics
(iii) Cookwares
(iv) Explosives
(1) Only (i)
(2) (ii) and (iv)
(3) (i), (ii) and (iv)
(4) (ii), (iii) and (iv)
49. Read the following statements carefully :

X : It is a fossil fuel used in thermal power plants to produce electricity.
$\mathrm{Y}:$ It is a porous, black and almost pure form of carbon.
Z : It is a mixture of about 200 substances.
$\mathrm{X}, \mathrm{Y}$ and Z are respectively
(1) Petroleum, coal gas, coke
(2) Coal, coke, coal tar
(3) CNG, bitumen, diesel
(4) Coal gas, petrol, paraffin wax.
50. One word answers are given for a few statements. Mark the answer which is not correct :-
(1) Resources which will either never run out or are replaced within a reasonable period of time Renewable resources.
(2) Wise and careful use of resources by not wasting them - Conservation.
(3) Conversion of wood into coal over millions of years due to high temperature and pressure under the earth-Carbonisation.
(4) A black, viscous liquid extracted from the rocks which is a source of hydrocarbons - Coal tar.
51. Which of the following rational numbers is in the standard form?
(1) $\frac{-18}{26}$
(2) $\frac{-56}{91}$
(3) $\frac{-27}{64}$
(4) $\frac{28}{-105}$
52. On the given number line, point A represents the rational number

(1) $\frac{2}{8}$
(2) $\frac{3}{8}$
(3) $\frac{1}{8}$
(4) $\frac{2}{3}$
53. Which of the following is a pythagorean triplet?
(1) $(2,3,5)$
(2) $(5,7,9)$
(3) $(6,9,11)$
(4) $(8,15,17)$
54. $\sqrt{0.00059049}$ is equal to
(1) 0.243
(2) 0.0243
(3) 0.00243
(4) 0.000243
55. Which of the following numbers are the cube of a negative whole number? (-64, -2197, -1056, -3888)
(1) $-64,-2197$
(2) $-1056,-3888$
(3) $-64,-1056$
(4) $-2197,-3888$
56. Which of the following numbers are cubes of rational numbers?
$\frac{27}{64}, \frac{125}{128}, 0.001331,0.04$
(1) $\frac{27}{64}, 0.001331$
(2) $\frac{125}{128}$
(3) 0.04
(4) None of these
57. If $\left(\frac{a}{b}\right)=\left(\frac{5}{2}\right)^{-3} \times\left(\frac{8}{15}\right)^{-3}$, then $\left(\frac{a}{b}\right)^{-2}$ is equal to
(1) $\left(\frac{4}{3}\right)^{6}$
(2) $\left(\frac{3}{4}\right)^{-6}$
(3) Both (1) and (2)
(4) None of these
58. $\left\{\left(\frac{5}{3}\right)^{15}\right\}^{0}$ is equal to
(1) $\frac{5}{3}$
(2) $\frac{3}{5}$
(3) 1
(4) None of these
59. $3(x-5)-5(x-2)=0$, then value of $x$ is
(1) $\frac{2}{5}$
(2) $\frac{5}{2}$
(3) $\frac{-5}{2}$
(4) None of these
60. If $\frac{2 x+7}{5 x+8}=\frac{2 x+6}{5 x+4}$, then $x=$
(1) $x=-6 \frac{2}{3}$
(2) $x=-3 \frac{1}{2}$
(3) $x=-2 \frac{1}{2}$
(4) $x=-3 \frac{6}{7}$
61. What should be added to twice the rational number $\frac{-7}{3}$ to get $\frac{3}{7}$ ?
(1) $\frac{100}{21}$
(2) $\frac{107}{21}$
(3) $\frac{170}{21}$
(4) None of these
62. If $\angle \mathrm{P}=75^{\circ}$, then $\angle \mathrm{Q}=$
(1) $75^{\circ}$
(2) $90^{\circ}$
(3) $105^{\circ}$
(4) $100^{\circ}$

63. In the given figure, ABCD is a parallelogram, diagonals BD and AC intersect each other at E . If $\mathrm{BE}+\mathrm{CE}=8 \mathrm{~cm}$, then $\mathrm{AC}+\mathrm{BD}$ is equal to
(1) 16 cm
(2) 14 cm
(3) 20 cm
(4) 24 cm

64. Which of the following are equiangular and equilateral polygons?
(1) Square
(2) Rhombus
(3) Kite
(4) None of these
65. The point $(-6,0)$ lies on $\qquad$ axis
(1) Y-axis
(2) X-axis
(3) Both axes
(4) None of these
66. On joining the points if we get a straight line, that graph is called
(1) Bar graph
(2) Pie chart
(3) Linear graph
(4) None of these
67. If


The possible values of $A$ and $B$ are
(1) $\mathrm{A}=0, \mathrm{~B}=2$
(2) $\mathrm{A}=5, \mathrm{~B}=1$
(3) $\mathrm{A}=5, \mathrm{~B}=0$
(4) $\mathrm{A}=0, \mathrm{~B}=5$
68. f the number $\overline{42573 \mathrm{x}}$ is exactly divisible by 72 , then the minimum value of x is :
(1) 4
(2) 5
(3) 6
(4) 7
69. The value of $\frac{9 x^{2}-24 x y+16 y^{2}}{3 x-4 y}$ is
(1) $3 x+4 y$
(2) $3 x-4 y$
(3) $4 x-3 y$
(4) $4 x+3 y$
70. If $x+\frac{1}{x}=a+b$ and $x-\frac{1}{x}=a-b$, then
(1) $\mathrm{ab}=1$
(2) $a=b$
(3) $\mathrm{ab}=2$
(4) $a+b=0$
71. The length of the diagonal of a quadrilateral is 40 cm and the perpendicular drawn to it from the opposite vertices are 12 cm and 7.5 cm . Find the area of the quadrilateral.
(1) $380 \mathrm{~cm}^{2}$
(2) $382 \mathrm{~cm}^{2}$
(3) $390 \mathrm{~cm}^{2}$
(4) $392 \mathrm{~cm}^{2}$
72. The liquid filled in a cuboidal tin $60 \mathrm{~cm} \times 15 \mathrm{~cm} \times 12 \mathrm{~cm}$ is poured into a cylinder with area of base $540 \mathrm{~cm}^{2}$. Find the height of the liquid in the cylinder.
(1) 10 cm
(2) 40 cm
(3) 200 cm
(4) 20 cm
73. If $A: B=5: 7$ and $B: C=6: 11$, then $A: B: C$ is
(1) $55: 77: 66$
(2) $30: 42: 77$
(3) $35: 49: 42$
(4) None of these
74. If the cost of " $x$ " metres of wire is " $d$ " rupees, then what is the cost of " $y$ " metres of wire at the same rate?
(1) Rs. $\left(\frac{x y}{d}\right)$
(2) Rs. (xy)
(3) Rs. (yd)
(4) Rs. $\left(\frac{y d}{x}\right)$
75. A polyhedron has 10 vertices and 7 faces. How many edges does this polyhedron has?
(1) 15
(2) 25
(3) 20
(4) 30
76. Transfer of seedlings from nursery to the main field is -
(1) Transplantation
(2) Sowing
(3) Weeding
(4) None
77. Which one of the following is a weed ?
(1) Wheat
(2) Chenopodium
(3) Maize
(4) Rice
78. The crops that are harvested by March and April are -
(1) Rabi crops
(2) Kharif crops
(3) Medicinal crop
(4) Fibre crops
79. Ploughing, leveling and manuring are the steps of -
(1) Preparation of soil
(2) Sowing
(3) Irrigation
(4) Weeding
80. The microorganism which has the ability to fix nitrogen is -
(1) Virus
(2) Euglena
(3) Rhizobium
(4) Amoeba
81. The protozoa which can perform photosynthesis
(1) Amoeba
(2) Paramoecium
(3) Euglena
(4) Giardia
82. Formation of curd by milk is done by -
(1) Lactobacillus
(2) Moulds
(3) Yeasts
(4) algae
83. Yeast is used in the production of -
(1) Sugar
(2) Alcohol
(3) Oxygen
(4) None
84. The main function of a plasma membrane is to -
(1) Prevent water from entering or leaving
(2) Control what goes into and out of the cell
(3) Act as a sieve, allowing only lipids to pass
(4) Move the cell from place to place
85. Who first coined the word "cell" ?
(1) Aristotle
(2) Hooke
(3) Schwann
(4) Leuwenhoek
86. The name "power house of the cell" has been given to -
(1) Centrioles
(2) Ribosome
(3) Mitochondria
(4) Lysosome
87. Plant cell does not have -
(1) Lysosome
(2) Cell wall
(3) Chloroplast
(4) Vacuoles
88. Which of the following is considered as 'Kitchen' of the plant cell ?
(1) Chloroplast
(2) Chromoplast
(3) Leucoplast
(4) None
89. All the animals found in a particular area are termed as -
(1) Flora
(2) Fauna
(3) Trees
(4) Garden
90. Cosequences of deforestation is -
(1) Reduced rainfall
(2) Desertification
(3) Global warming
(4) all of these
91. The Red Data Book gives an account of -
(1) Endangered plants
(2) Extinct animals
(3) Endangered plants and animals
(4) None
92. Which of the following is not an endangered species ?
(1) Peacock
(2) Indian Rhino
(3) Asiatic lion
(4) Great Indain bustard
93. Secretions of endocrine glands are called -
(1) enzymes
(2) hormones
(3) catalysts
(4) sugars
94. Which of these is the master gland ?
(1) pituitary
(2) thyroid
(3) ovary
(4) adrenal
95. Which of the following is not a part of female reproductive system ?
(1) ovary
(2) oviduct
(3) uterus
(4) embryo
96. Sperms in males are produced in -
(1) testes
(2) urethra
(3) epididymis
(4) penis
97. Which is a viviparous animal ? -
(1) Frog
(2) Lizard
(3) Man
(4) snake
98. Cevix is a part of -
(1) Ovary
(2) Vagina
(3) Uterus
(4) Oviduct
99. Ameoba reproduce through -
(1) Binary fission
(2) Budding
(3) Fertilisation
(4) Tertiary fusion
100. In mammals the female secondary sexual characters are developed by the hormone
(1) relaxin
(2) estrogens
(3) progesterone
(4) gonadotropins
101. If the following words are arranged as found in the dictionary, then what will be the fourth letter from the left in the last word?
INTIMATION, INFORMATION, INTEREST, INTERROGATION, INSTIGATION
(1) R
(2) O
(3) T
(4) I
102. Choose the odd one
(1) 43
(2) 53
(3) 63
(4) 73
103. Arrange the given words in the sequence in which they occur in the dictionary and then choose the correct sequence.
(1) Select
(2) Seldom
(3) Send
(4) Selfish
(5) Seller
(1) $1,2,4,5,3$
(2) $2,1,5,4,3$
(3) $2,1,4,5,3$
(4) $2,5,4,1,3$
104. If eraser is called box, box is called pencil, pencil is called sharpener and sharpener is called bag. What will a child write with?
(1) Eraser
(2) Box
(3) Pencil
(4) Sharpener
105. If $\mathbf{Z}=52$ and $\mathbf{A C T}=48$, then $\mathbf{B A T}$ will be equal to
(1) 46
(2) 39
(3) 41
(4) 44
106. Amar travels one km due East; then 5 km due south, then 2 km due East and finally 9 km due North. How far is from the starting point?
(1) 16 kms
(2) 8 kms
(2) 6 kms
(4) 5 kms
107. If I satnd on my head with my face pointing Northwards, in what direction will my right-hand point?
(1) East
(2) West
(3) North
(4) South
108.

(1)

(2)

(3)

(4)

109. If x stands for 'add', y stands for 'subtract', z stands for 'divide', and p stands for 'multiply', then what is the value of $(7 \mathrm{p} 3)$ y $6 \times 5$ ?
(1) 10
(2) 12
(3) 15
(4) 20
110. Correct the following equations by interchanging two signs :
$16-21 \div 7 \times 6+3=31$
(1) - and +
(2) + and $\times$
(3) $\div$ and +
(4) $\div$ and $\times$

## Mirror Image (If the mirror is placed vertically)

111. 


(1)

(2)

(3)

(4)

112. If the numbers from 1 to 45 which are exactly divisible by 3 are arranged in ascending order, minimum number being on the top, which would come at the ninth place from the top?
(1) 18
(2) 21
(3) 24
(4) 27

## Number Series

113. $7,11,13,19,23,25$, ?
(1) 25
(2) 27
(3) 24
(4) 29
114. $151,158,172,182$,?
(1) 210
(2) 193
(3) 197
(4) 203
115. Which of the following diagrams indicates the best relation between Professors, Doctors and Men?
(1)

(2)

(3)

(4)

116. In the following diagram the boys who are athelitic and are disciplined are indicated by which number?
 Disciplined
(1) 1
(2) 2
(3) 10
(4) 6
117. 


(1)

(2)

(3)

(4)

118. If Anil is the brother of the son of Sunil's son, what is the relationship between Anil and Sunil?
(1) Cousin
(2) Brother
(3) Nephew
(4) Grandson
119. $P$ and $Q$ are married couple. A and $B$ are brothers. $A$ is the brother of $P$. How is $B$ related to $Q$.
(1) Brother-in-law
(2) Brother
(3) Cousin
(4) Son-in-law
120.

(1) 48
(2) 9
(3) 44
(4) 64

