

SAMPLE PAPER- 1

ACADEMIC SESSION : 2020-21

FOR CLASS IX MOVING STUDENT

Time : 1½ Hr.

Negative Marking - 0.25

Maximum Marks : 60

GENERAL INSTRUCTIONS

1. Each question carry 1 marks.
2. Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form is not allowed.
3. Write your Name and Roll No. in the space provided in the bottom of this booklet.
4. Before answering the paper, fill up the required details in the blank space provided in the answer sheet.
5. Do not forget to mention your roll number neatly and clearly in the blank space provided in the answer sheet.
6. No rough sheets will be provided by the invigilators. All the rough work is to be done in the blank space provided in the question paper.
7. In case of any dispute, the answer filled in the OMR sheet available with the institute shall be final.
8. Post exam Answer Key will be declared. Correction in Answer Key will be accepted till next 36 hours after which no correction will be entertained.



VIBRANT ACADEMY (India) Private Limited

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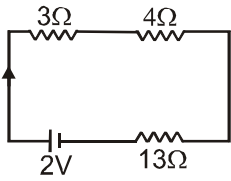
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1. Twelve years hence a man will be four times as he was twelve years ago, then his present age is
 (A) 20 years (B) 25 years
 (C) 28 years (D) 30 years
2. If $2^x - 2^{x-1} = 4$ then x^x is equal to
 (A) 1 (B) 27
 (C) 8 (D) None
3. Which rational number is exactly in middle between the two rational numbers $\frac{1}{3}$ & $\frac{1}{2}$
 (A) $\frac{5}{12}$ (B) $\frac{5}{6}$
 (C) $\frac{1}{12}$ (D) $\frac{3}{5}$
4. Simplify : $\frac{\sqrt{\sqrt{81} + \sqrt{256} + 39}}{\sqrt{\sqrt{169} - \sqrt{49} - 2}}$
 (A) 6 (B) 8
 (C) 4 (D) 2
5. If $a^x = b$, $b^y = c$ and $c^z = a$, then the value of xyz is :
 (A) 0 (B) 1
 (C) $x + y + z$ (D) abc
6. The 5% of any sum equal to 15% of Rs. 600 . The sum will be -
 (A) Rs. 1500 (B) Rs. 1200
 (C) Rs. 1000 (D) Rs. 1800
7. A certain sum of money doubles itself at a compound interest in 10 years. It becomes eight times in :
 (A) 20 years (B) 30 years
 (C) 15 years (D) 13 years
8. A, B and C can complete a work, working alone in 10, 15 and 20 days respectively. If all of them work together to complete the work, what fraction of the work would have done by B ?
 (A) $\frac{4}{13}$ (B) $\frac{1}{2}$
 (C) $\frac{1}{3}$ (D) $\frac{6}{13}$
9. Toffees are bought at the rate of 4 for a rupee. To gain 60% they must be sold at :
 (A) 2.5 for a rupee (B) 5 for a rupee
 (C) 6 for a rupee (D) 8 for a rupee
10. The mean weight of a class of 34 students is 46.5 kg. If weight of the teacher is included, the mean weight rises by 500 gm. Then the weight of the teacher is –
 (A) 175 kg. (B) 62 kg.
 (C) 64 kg. (D) 72 kg.
11. Focal length of a convex lens is 100 cm, its power will be :
 (A) –10 D (B) – 1 D
 (C) +1 D (D) 0.1 D
12. Which of the following is not a unit of force ?
 (A) Dyne (B) Newton
 (C) Joule (D) Kg m/s^2

Space For Rough Work

13. The lens which produces small, erect, virtual image :
 (A) concave lens (B) plano convex
 (C) convex lens (D) none of these
14. How many newtons are equal to 1dyne ?
 (A) 10^4 (B) 10^5
 (C) 10^{-5} (D) 10^3
15. If a wave completes 24 cycles in 10s, then the frequency of the wave is :
 (A) 30 Hz (B) 2.4 Hz
 (C) 24 Hz (D) 12 Hz
16. A calorimeter full of hot water is hang in vacuum. It will cool by :
 (A) convection (B) radiation
 (C) conduction (D) Not cool at all
17. How many electrons are there in one coulomb charge ?
 (A) 6.25×10^6 (B) 6.25×10^{18}
 (C) 6.25×10^9 (D) 6.25×10^{15}
18. The planet closest to the sun is :
 (A) mars (B) Jupiter
 (C) mercury (D) earth
19. Match the following :
 (1) Conductor (a) plastic
 (2) Charge at rest (b) current electricity
 (3) Moving charge (c) electrostatics
 (4) Insulator (d) copper
 (A) (1) → (c), (2) → (d), (3) → (b), (4) → (a)
 (B) (1) → (d), (2) → (c), (3) → (a), (4) → (b)
 (C) (1) → (c), (2) → (d), (3) → (b), (4) → (a)
 (D) (1) → (d), (2) → (c), (3) → (b), (4) → (a)
20. In the given circuit below, the potential drop across 4 ohm resistor is :

 (A) 2.6 V (B) 1.2 V
 (C) 0.4 V (D) 9.6 V
21. Which hydride among the following is called hydrolith ?
 (A) NaH (B) KH
 (C) CaH_2 (D) MgH_2
22. In the reaction $2\text{Al} + \text{Cr}_2\text{O}_3 \longrightarrow 2\text{Cr} + \text{Al}_2\text{O}_3$, oxidising agent is -
 (A) Al (B) Cr_2O_3
 (C) Cr (D) Al_2O_3
23. Which of the following is a monomer of PVC ?
 (A) Ethylene
 (B) Tetrafluoro ethylene
 (C) Chloroethane
 (D) None of the above
24. Which of the following metal has been used for building boats because it has resistance to corrosion by sea water ?
 (A) Cu (B) Ni
 (C) W (D) Ti
25. When iron is heated with chlorine gas, the product of the reaction is-
 (A) FeCl_2 (B) Fe_3Cl_4
 (C) FeCl_3
 (D) No reaction takes place

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26. Which of the following is not a product of petroleum refining ?
 (A) Toluene (B) Gasoline
 (C) Kerosene oil (D) Diesel oil
27. When magnesium ribbon is heated in presence of oxygen then a white powder is formed. White powder is -
 (A) magnesium phosphate
 (B) magnesium oxide
 (C) magnesium carbonate
 (D) Both (B) and (C)
28. In destructive distillation of wood, wood is heated-
 (A) in the absence of air.
 (B) in the limited supply of air.
 (C) in the excess supply of air.
 (D) none of these
29. Which of the following substances is used in refining of petroleum ?
 (A) NaCl (B) NaOH
 (C) Na₂CO₃ (D) NaHCO₃
30. The element which does not get oxidized when heated in air, is -
 (A) iron (B) gold
 (C) calcium (D) magnesium
31. The finger like structures present in mitochondria are called as :
 (A) Grana (B) Microvilli
 (C) Villi (D) Cristae
32. Ribosomes are made up of :
 (A) Fat and proteins
 (B) Proteins and RNA
 (C) Lipids and proteins
 (D) Proteins and DNA
33. Middle piece of sperm has :
 (A) Mitochondria (B) Centrioles
 (C) Golgi bodies (D) Ribosomes
34. What is the function of Testes ?
 (A) Produce sperm
 (B) Produce male hormone - testosterone
 (C) Both A & B
 (D) None of these
35. Bacterial genome is called :
 (A) Nucleus (B) Nucleolus
 (C) Nucleoid (D) None
36. Locate the malarial parasite :
 (A) Entamoeba (B) Trypanosoma
 (C) Paramoecium (D) Plasmodium
37. Viral envelope is made up of :
 (A) Proteins (B) Lipids
 (C) Carbohydrates (D) All of the above
38. The general formula for carbohydrate is
 (A) C_nH_{2n}O_{n-1}
 (B) C_nH_{2n}O_n
 (C) both of them are correct
 (D) none of them is correct
39. The high yielding dwarf variety of wheat developed by Dr. M.S. Swaminathan was :
 (A) Hira – moti
 (B) C 306
 (C) Sharbati sonara
 (D) Arjun
40. Food for cattle including more fibre content is called as :
 (A) Roughage
 (B) Concentrate
 (C) Both of above
 (D) None of the above

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41. The Horse latitudes are -
 (A) The regions lying between 5°N and 5°S
 (B) The regions of low atmospheric pressure
 (C) The regions of calm and light variable winds
 (D) The regions of moist air and unstable weather conditions
42. Which Edible crops do not need more water :
 (A) Rice (B) Wheat
 (C) Millet (D) Oilseeds
43. Physical capital includes the items :
 (A) Raw material and money
 (B) Tools, Machines & Building
 (C) Air, Water & Gas
 (D) All the above
44. Which of the following crop's production increased in India by Green Revolution :
 (A) Mustard & Groundnut
 (B) Sugarcane and Sunflower
 (C) Wheat and Rice
 (D) Tea and Coffee
45. A government is federal or unitary on the basis of relation between the :
 (A) Three organs of government
 (B) Centre and States
 (C) Legislature and the Executive
 (D) Constitution and the States
46. The part of the Constitution that reflects the mind and ideals of the framers is :
 (A) Directive Principles
 (B) Fundamental Rights
 (C) Preamble
 (D) Citizenship
47. Population composition means
 (A) population structure.
 (B) population density.
 (C) population distribution.
 (D) population growth.
48. Who was the founder of Congress ?
 (A) A.O. Hume (B) W. C Bannerjee
 (C) Lala Lajpat Rai (D) Litten
49. Most of the year, the weather in Chennai is
 (A) hot and humid.
 (B) cold and pleasant.
 (C) humid with heavy downpour.
 (D) hot and cold.
50. The sun shines vertically over the equator on :
 (A) March 21 (B) December 22
 (C) June 21 (D) all days
- Directions : (51 to 53) Find the missing terms :**
51. 18, 35, 69, 137, ?
 (A) 270 (B) 273
 (C) 271 (D) 272
52. 1 BR, 2 EO, 6 HL, 15 KI, ?
 (A) 22 NF (B) 31 NF
 (C) 31 NE (D) 28 NF
53.

7	11	49
12	8	54
15	4	?

 (A) 36 (B) 7
 (C) 25 (D) 0

Space For Rough Work

54. If **THRASH** is coded as **UGSZTG** how will **HEAD** be written in that code?

- (A) IECD (B) GDZC
(C) IDBC (D) GDBC

55. If in the word **MANORANJAN** the first letter is interchanged with the last letter, the second letter is interchanged with the ninth letter and so on, which letter would come after the letter which is fourth from your left in the newly formed word.

- (A) R (B) A
(C) N (D) J

56. If $A + B$ means A is the brother of B, $A - B$ means A is the father of B, $A \times B$ means A is the wife of B, then $P \times R - S + T$ means

- (A) P is the mother of T.
(B) T is the sister of P.
(C) R is the grand father of T.
(D) T and R are sisters.

Direction : (57) In the following question choose the missing word in place of sign ? On the basis of the relationship between the words given on the left side of sign ::

57. Pakistan : Rupees :: Italy: ?

- (A) Rupees (B) Taka
(C) Yen (D) Lira

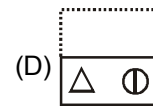
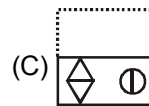
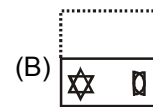
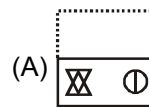
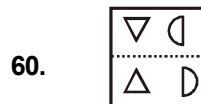
58. If '20 - 10' means 200, '8 ÷ 4' means 12, '6 × 2' means 4 and '12 + 3' means 4, then

- $100 - 10 \times 1000 \div 1000 + 100 \times 10 = ?$
(A) 1090 (B) 0
(C) 1900 (D) 20

59. If the sixth day of a month is fourth day after Sunday then which day of the week will be on 19th day of that month -

- (A) Friday (B) Wednesday
(C) Saturday (D) Tuesday

Direction : (60) A square transparent sheet with a pattern is given in figure X. Find out from amongst the alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.



Space For Rough Work

SAMPLE PAPER–2

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FOR CLASS IX MOVING STUDENT

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1. If the difference of the square of two consecutive rational numbers is 29. Then one of the number is -
 (A) 28 (B) 13
 (C) 14 (D) 16
2. If $(1^2 + 2^2 + 3^2 + 4^2 + 5^2)^2 = \frac{1}{P}$ then P is _____.
 (A) $\frac{1}{3125}$ (B) 3125
 (C) $\frac{1}{3025}$ (D) 3025
3. A man suffers a loss of 25% by selling articles at the rate of Rs. 432 per dozen. The cost price of the article per dozen was :
 (A) Rs. 45 (B) Rs. 48
 (C) Rs. 476 (D) Rs. 576
4. The compound Interest on Rs. 25,600 for 2 years at $6\frac{1}{4}$ % per annum is :
 (A) Rs.3000 (B) Rs. 3300
 (C) Rs. 3600 (D) Rs. 4000
5. Evaluate $\sqrt{41 - \sqrt{21 + \sqrt{19 - \sqrt{9}}}}$
 (A) 3 (B) 6
 (C) 5 (D) 6.4
6. Evaluate $\left(\frac{1}{2}\right)^{-3/2} \div \left[\left(\frac{1}{2}\right)^3\right]^{-1/2}$
 (A) $\left(\frac{1}{2}\right)^{-2}$ (B) $\left(\frac{1}{2}\right)^{-3/5}$
 (C) 0 (D) 1
7. A cylindrical rod whose height is 8 times of its radius is melted and recast into spherical balls of same radius. The number of balls will be :
 (A) 4 (B) 3
 (C) 6 (D) 8
8. A student has to secure 35% marks to pass the examination. If he gets 120 marks and fails by 20 marks, find the maximum marks set for the examination :
 (A) 1000 (B) 400
 (C) 350 (D) 700
9. If the mean of y and $\frac{1}{y}$ is M, then the mean of y^3 and $\frac{1}{y^3}$ is :
 (A) $M \frac{(M^2 - 3)}{2}$ (B) $M(4M^2 - 3)$
 (C) M^3 (D) $2M(4M^2 - 3)$
10. If $\frac{5x}{4} + \frac{6-x}{8} = \frac{6(x+3)}{3} - \frac{1}{6}$, then x = ?
 (A) $-\frac{121}{22}$ (B) $\frac{121}{12}$
 (C) $\frac{212}{21}$ (D) $-\frac{122}{21}$
11. If the reflected ray is at an angle of 90° to the incident ray, then the angle of incidence of a ray is :
 (A) 50° (B) 60°
 (C) 45° (D) 90°
12. External forces are :
 (A) always balanced
 (B) never balanced
 (C) may or may not be balanced
 (D) none of these
13. A series of ocean waves, each 5.0 m from crest to crest, are moving past the observer at a rate of 2 waves per second. What is the velocity :
 (A) 2.5 m/s (B) 5.0 m/s
 (C) 8.0 m/s (D) 10.0 m/s

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14. If I is the current through a wire and e is the charge of electron, then the number of electrons in t sec. will be given by
- (A) $\frac{Ie}{t}$ (B) Ite
 (C) $\frac{e}{It}$ (D) $\frac{It}{e}$
15. 1 dyne is equal to :
- (A) 980 g wt (B) 980 kg wt
 (C) $\frac{1}{980}$ g wt (D) None of these
16. Atmospheric pressure on the earth is unable to crush humans because :
- (A) humans are the most powerful living beings on the earth
 (B) pressure exerted from the inside of the body cells is less than the atmospheric pressure there
 (C) pressure exerted from the inside of the body cells is more than the atmospheric pressure there
 (D) pressure exerted from the inside of the body cells equals the atmospheric pressure there
17. A book of 10 N is placed on the table. The force exerted by the surface of the table on the book will be :
- (A) 380 N (B) 10 N
 (C) 20 N (D) 100 N
18. Which of the following is not a unit of force ?
- (A) Dyne (B) Kg m s^{-2}
 (C) g cm s^{-2} (D) $\text{Kg m}^2 \text{s}^{-2}$
19. If the distance between the object and its image in a plane mirror is 14.6 cm, then the distance of the object from the mirror is
- (A) 14.6 cm (B) 7.3 cm
 (C) 29.2 cm (D) 10 cm
20. Commercial unit of electrical energy is :
- (A) Calorie (B) Kilowatt hour
 (C) Joule (D) All of them
21. The metal which can displace zinc from its salt solution is -
- (A) Mg (B) Fe
 (C) Pb (D) Cu
22. Which of the following has the highest percentage of carbon ?
- (A) Peat (B) Lignite
 (C) Bituminous (D) Anthracite
23. Which of the following is an example of amphoteric oxide ?
- (A) ZnO (B) CO
 (C) Fe_2O_3 (D) FeO
24. The head of a safety match contains
- (A) antimony trisulphide and potassium chlorate
 (B) antimony chloride and potassium sulphide
 (C) antimony carbonate
 (D) potassium sulphide
25. Which one of the following statements pertaining to the general properties of metals is wrong ?
- (A) Most of the metals form basic oxides.
 (B) All metals displace hydrogen from acids.
 (C) All metals except Hg are found in solid state at room temperature.
 (D) Metals form alloys with other metals.
26. Main constituents of coal gas are -
- (A) H_2O , C_2H_6 , O_2 (B) CH_4 , CO_2 , O_2
 (C) CH_4 , H_2 , CO (D) C_2H_6 , N_2 , O_2
27. LPG mainly contains :
- (A) butane and isobutane
 (B) methane
 (C) methane and ethane
 (D) hydrogen, methane and ethane
28. Kavita, Mahima and Shreya were doing an experiment in which water was to be heated in a beaker. Kavita kept the beaker in innermost black part of the candle flame. Mahima kept the beaker near the wick in the yellow part and Shreya kept the beaker in the outermost part of the flame. Whose water will get heated in a shorter time ?
- (A) Kavita (B) Mahima
 (C) Shreya (D) Both Kavita and

Space For Rough Work

29. The kind of fabric that can be used while working in a laboratory is :
 (A) silk (B) nylon
 (C) cotton (D) both (A) and (B)
30. Fabric polycot is prepared by mixing :
 (A) polyester with silk
 (B) polyester with nylon
 (C) polyester with cotton
 (D) polyester with silk and cotton
31. Manures are beneficial to soil because :
 (A) They increase soil erosion
 (B) They increase water holding capacity of soil
 (C) They are water soluble in nature
 (D) They are required in large quantities
32. Green revolution means
 (A) use of green manure
 (B) Growing of more crops
 (C) Use of high yeild varieties
 (D) Green vegetation
33. Diagnostic test for AIDS is :
 (A) Widal Test
 (B) Lepamin test
 (C) ELISA Test
 (D) Biopsy
34. World climate is threatened by increase in concentration of :
 (A) oxygen (B) carbon dioxide
 (C) nitrogen (D) water vapours
35. Bishnoi community people lost their lives while protecting :
 (A) Khejri tree (B) Salt tree
 (C) Pinus tree (D) Teak tree
36. Bacteriophage is :
 (A) Bacteria which kills organisms
 (B) Bacteria which kills viruses
 (C) Virus which attack bacteria
 (D) None of the above
37. The most busy part of the human body is :
 (A) Heart (B) Eye
 (C) Liver (D) Ear
38. The Sex of the child is determind by :
 (A) Health of mother and father
 (B) Male and female both
 (C) Female
 (D) Male
39. Removal of weeds is necessary for plant growth because weeds :
 (A) compete with crop for nutrition
 (B) cause diseases in crop
 (C) delay the harvesting time of the crop
 (D) attract the insects and birds towards the crop
40. NPK stand for :
 (A) Nitrogen, Phosphorus and Sulphur
 (B) Nitrogen, Potassium and Calcium
 (C) Nitrogen, Phosphorus and Potassium
 (D) Nitrogen, Potassium and Iron
41. Shahjahanabad consisted of _____ one of the largest and grandest mosques in India.
 (A) Jama Masjid (B) Red Fort
 (C) Chandni Chowk (D) Dargah
42. Woods despatch supported -
 (A) Orientalist (B) Anglicist
 (C) Muslims (D) None

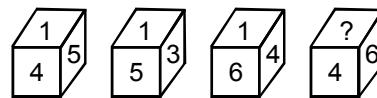
Space For Rough Work

43. The period of Congress known as 'Moderate Phase' is :
 (A) 1885–1900 (B) 1885–1901
 (C) 1885–1903 (D) 1885–1905
44. First cotton mill in India was established at -
 (A) Delhi (B) Bombay
 (C) Madras (D) Surat
45. Hiuen Tsang had come to India during the reign of :
 (A) Asoka (B) Chadragupta-II
 (C) Samudragupta (D) Harsa Vardhan
46. Sati system was prohibited by William Bentinck in the year :
 (A) 1827 (B) 1828
 (C) 1829 (D) 1830
47. In British period the Supreme Court was established under which Act –
 (A) Pitt's India Act
 (B) India Council Act 1860
 (C) Regulating Act 1773
 (D) Indian Council Act 1892
48. Who is known as the father of Indian constitution–
 (A) Pt. Jawahar Lal Nehru
 (B) Krishna Menon
 (C) Sardar Vallabhbai Patel
 (D) Bhimrao Ambedkar
49. The joint sessions of Lok Sabha & Rajya Sabha are summoned by the :
 (A) Speaker of Lok Sabha
 (B) President
 (C) Leader of the Majority party
 (D) Ministry of Paraliamentary affairs
50. Which one of the following is known as 'Pittsburg of India' ?
 (A) Baroda (B) Rourkela
 (C) Jamshedpur (D) Durgapur

Directions : (51 to 52) Find the missing terms :

25	17	41
32	83	11
26	?	31

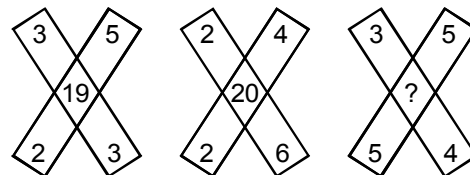
51. (A) 26 (B) 25
 (C) 34 (D) 38
52. mq _ sqm _ qssq _ m _ ssqmm _ s
 (A) qsmsq (B) qmsmq
 (C) smmqq (D) sqmss
53. How many numbers amongst the numbers 7 to 41 are there which are exactly divisible by 9 but not by 3 ?
 (A) 0 (B) 1
 (C) 2 (D) 3
54. In the following question dice has been shown in different position. Study the pattern of the numbers on each face of it and find out the value of the sign "?" from four alternatives given -



- (A) 1 (B) 2
 (C) 3 (D) 5

Directions : (55 to 56) Find the missing terms :

55. 55, 210, ?, 820, 1275
 (A) 465 (B) 420
 (C) 410 (D) 515

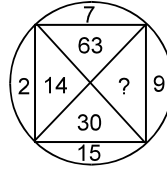


56. (A) 47 (B) 45
 (C) 37 (D) 35

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57. Which letter should be ninth letter to the left of ninth letter from the right, if the first half of the alphabet series is reversed ?
 (A) D (B) E
 (C) F (D) I

59.



- (A) 33 (B) 145
 (C) 135 (D) 18

58. Pointing to a person, Rohit said to Neha, "His mother is the only daughter of your father." How is Neha related to that person ?
 (A) Aunt (B) Mother
 (C) Daughter (D) Wife

60.

Find out the two signs to be interchanged for making following equation correct :

$$3 - 9 \times 27 + 9 \div 3 = 3$$

- (A) + and - (B) × and +
 (C) × and ÷ (D) × and -

Space For Rough Work

SAMPLE PAPER– 3

ACADEMIC SESSION : 2020-21

FOR CLASS IX MOVING STUDENT

Time : 1½ Hr.

Negative Marking 0.25

Maximum Marks : 60

GENERAL INSTRUCTIONS

1. Each question carry 1 marks.
2. Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form is not allowed.
3. Write your Name and Roll No. in the space provided in the bottom of this booklet.
4. Before answering the paper, fill up the required details in the blank space provided in the answer sheet.
5. Do not forget to mention your roll number neatly and clearly in the blank space provided in the answer sheet.
6. No rough sheets will be provided by the invigilators. All the rough work is to be done in the blank space provided in the question paper.
7. In case of any dispute, the answer filled in the OMR sheet available with the institute shall be final.
8. Post exam Answer Key will be declared. Correction in Answer Key will be accepted till next 36 hours after which no correction will be entertained.



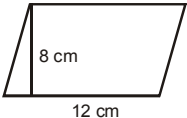
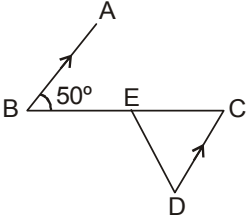
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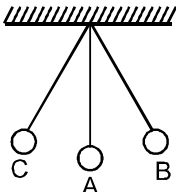
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1. Gold is 19 times as heavy as water and copper is 9 times as heavy as water. In what ratio should these be mixed to get an alloy 15 times as heavy as water ?
 (A) 1 : 1 (B) 2 : 3
 (C) 1 : 2 (D) 3 : 2
2. As shown in figure, the distance between parallel sides of parallelogram is 8 cm and the length of one of the side is 12 cm. What is the area of parallelogram ?

 (A) 40 sq. cm. (B) 48 sq. cm.
 (C) 20 sq. cm. (D) 96 sq. cm.
3. In the figure given below, BA || DC and EC = ED, the measure $\angle BED$ is :

 (A) 80° (B) 50°
 (C) 100° (D) 105°
4. If $\frac{5x}{4} + \frac{6-x}{8} = \frac{6(x+3)}{3} - \frac{1}{6}$, then $x = ?$
 (A) $-\frac{121}{22}$ (B) $\frac{121}{12}$
 (C) $\frac{212}{21}$ (D) $-\frac{122}{21}$
5. A cylindrical rod whose height is 8 times of its radius is melted and recast into spherical balls of same radius. The number of balls will be :
 (A) 4 (B) 3
 (C) 6 (D) 8
6. A student has to secure 35% marks to pass the examination. If he gets 120 marks and fails by 20 marks, find the maximum marks set for the examination :
 (A) 1000 (B) 400
 (C) 350 (D) 700
7. In selling an article for Rs. 76, there is a gain of 52%. The gain by selling that for Rs. 74 is :
 (A) 50% (B) 48%
 (C) 46% (D) 44%
8. Adjacent angles of a parallelogram are in the ratio of 2 : 7, their values will be
 (A) $20^\circ, 160^\circ$ (B) $30^\circ, 150^\circ$
 (C) $40^\circ, 140^\circ$ (D) $60^\circ, 120^\circ$
9. If $A : B = 1\frac{1}{2} : 3\frac{1}{2}$; $B : C = 5\frac{1}{4} : 7\frac{1}{2}$, then
 A : B : C is :
 (A) 5 : 7 : 12 (B) 5 : 7 : 10
 (C) 3 : 7 : 10 (D) 3 : 7 : 12
10. If $x\%$ of $\frac{1}{y} = 16\frac{2}{3}\%$ of $\frac{1}{150}$, then what percent of y is x :
 (A) $11\frac{1}{9}\%$ (B) $9\frac{1}{11}\%$
 (C) 10% (D) 9%
11. On a full moon day, the :
 (A) moon lies in between the Earth and the Sun
 (B) Earth lies in between the moon and the Sun
 (C) Sun lies in between the Earth and the moon
 (D) Sun lies at the top of moon and earth
12. The number of oscillations per second is called the
 (A) time period (B) amplitude
 (C) frequency (D) displacement

(Space For Rough Work)

13. The outermost layer of the earth is called :
 (A) Mantle (B) Core
 (C) Crust (D) Centre
14. The number of satellites of Venus is :
 (A) one (B) two
 (C) three (D) zero
15. Which of the following is not a characteristic of image formed by a plane mirror :
 (A) Size of image = size of object
 (B) Distance of image from mirror = distance of object from mirror
 (C) we cannot obtain the image on the screen
 (D) Image is formed on the same side as that of object
16. An object is placed between two parallel plane mirrors with reflecting sides facing each other. Number of images formed will be :
 (A) 1 (B) 2
 (C) infinite (D) zero
17. Correct power rating of a bulb used in our country (India) is :
 (A) 100 W-100 volt (B) 100 W-1000 volt
 (C) 100 W - 220 volt (D) 100 W-240 volt
18. Human body temperature is normally :
 (A) 32° F (B) 98.6° F
 (C) 212° F (D) 98° C
19. Ultrasonic, infrasonic and audible waves travel through a medium with speeds v_u , v_i and v_a respectively, then :
 (A) $v_u < v_i < v_a$ (B) $v_u > v_i > v_a$
 (C) $v_u = v_i = v_a$ (D) $v_i < v_a < v_u$
20. In the given figure, which point represents the mean position of the pendulum :

 (A) A (B) B
 (C) C (D) (B) and (C) both
21. The colour of the flame in luminous zone is :
 (A) blue (B) red
 (C) yellow (D) black
22. Carbonisation is :
 (A) formation of carbon dioxide.
 (B) formation of carbon-monoxide.
 (C) burning of coal in presence of oxygen
 (D) conversion of dead vegetation into coal.
23. Which of the following substances is used in refining of petroleum ?
 (A) NaCl (B) NaOH
 (C) Na_2CO_3 (D) NaHCO_3
24. To identify what type of plastic a particular product belongs to, numbers have been allotted to the different types of plastics. Number three is allotted to -
 (A) PET (B) PP
 (C) PVC (D) PS
25. Main constituents of coal gas are -
 (A) H_2O , C_2H_6 , O_2 (B) CH_4 , CO_2 , O_2
 (C) CH_4 , H_2 , CO (D) C_2H_6 , N_2 , O_2

(Space For Rough Work)

26. Tungsten is used in electric bulbs because -
 (A) it has high melting point.
 (B) it is metallic.
 (C) it has high tensile strength
 (D) it has high density.
27. When a oil well is drilled through the rock, _____ comes out first.
 (A) Petroleum (B) Natural gas
 (C) Crude oil (D) Residual oil
28. Nylon -66 is made up of -
 (A) hexamethylene diamine & adipic acid
 (B) hexamethylene diamine & acetic acid
 (C) urea and acetic acid
 (D) None of these
29. A mixture of mustard oil and water can be separated by -
 (A) Filtration (B) Separating funnel
 (C) Distillation (D) Sublimation
30. Non-metal used in purification of water is :
 (A) nitrogen (B) oxygen
 (C) sulphur (D) chlorine
31. Beetroot is grown for :
 (A) flower (B) leaves
 (C) gum (D) Sugar
32. Humus is a
 (A) chemical fertiliser
 (B) dead organic matter
 (C) dry leaves
 (D) combination of soil and clay
33. Energy food is :
 (A) protein (B) fat
 (C) vitamin (D) minerals
34. TB is caused by :
 (A) bacteria (B) virus
 (C) protozoa (D) all of the above
35. Bacteriophage is :
 (A) Bacteria which kills organisms
 (B) Bacteria which kills viruses
 (C) Virus which attack bacteria
 (D) None of the above
36. Weed represents :
 (A) plant other than crop plant
 (B) a type of bacteria
 (C) crop yield
 (D) a toxic chemical
37. Red Data Book is published by
 (A) IUCN (B) IUPAC
 (C) WWF (D) GSPC
38. Areas for the protection of wildlife, their habitats and natural resources are called
 (A) biosphere (B) national parks
 (C) ecoshpere (D) ecosystem
39. An example of a cell in the human body that is variable in shape is
 (A) brain cell (B) hair cell
 (C) skin cell (D) white blood cell
40. Which trait is not helpful to a fish in adaptation ?
 (A) Streamlined body
 (B) Large pupils of the eyes
 (C) Gills
 (D) Beautiful colour of the body
41. During the British period the Supreme Court was established under which Act -
 (A) Pitt's India Act
 (B) India Council Act 1860
 (C) Regulating Act
 (D) Indian Council Act 1892
42. More labour is required in
 (A) Shifting cultivation (B) Horticulture
 (C) Plantation (D) Nomadic herding

(Space For Rough Work)

43. In which year Permanent Settlement was introduced?

- (A) 1793 (B) 1783
(C) 1773 (D) 1763

44. Who introduced the Mahalwari Settlement ?

- (A) Cornwallis (B) Thomas Munro
(C) Holt Mackenzie (D) Alexander Read

45. Sati system was prohibited by William Bentinck in the year :

- (A) 1827 (B) 1828
(C) 1829 (D) 1830

46. The image of which animal was their on Tipu sultan's flag ?

- (A) Lion (B) Elephant
(C) Tiger (D) Horse

47. Shahjahanabad consisted of _____ one of the largest and grandest mosques in India.

- (A) Jama Masjid (B) Red Fort
(C) Chandni Chowk (D) Dargah

48. Woods despatch supported -

- (A) Orientalist (B) Anglicist
(C) Muslims (D) None

49. In which one of the following states, Kolar gold mines are located :

- (A) Kerala (B) Karnataka
(C) Andhra Pradesh (D) Tamil Nadu

50. Birsa died in 1900 due to which disease :

- (A) Jaundice (B) Cholera
(C) Malaria (D) T.B.

Directions (51 & 52): Find the missing numbers/ letter/terms :

51. $ab - cb - c - c - - b$

- (A) bcaaa (B) aabbc
(C) abcab (D) acbca

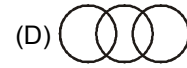
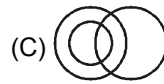
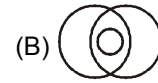
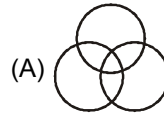
?	4	52
45	11	43
67	23	28
25	16	37

52.

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

Direction : (53) Which of the Venn diagrams given in the alternatives best represents the relation between the given items ?

53. Boys, Students, Players



54. A baby who was born on 29th Feb. 1896, when did he celebrate his first birthday.

- (A) 28th Feb. 1897 (B) 29th Feb. 1900
(C) 29th Feb. 1904 (D) 20th Feb. 1908

55. Which interchange of signs will make the following equation true ?

$$12 - 3 \times 2 \div 18 + 6 = 9$$

- (A) $\div, -$ (B) $\div, +$
(C) $\times, -$ (D) $+, -$

56. In a row of five persons, A is next to B. E is on the right side of A who has D on his left side, C and B do not sit together. Who are sitting on the two ends of the row ?

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

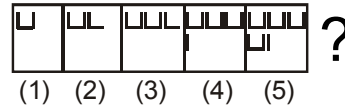
(Space For Rough Work)

57. In a certain code, **23** is coded as **OX**, **529** as **FOR**, and **0229** as **DOOR**, how is **235290** coded ?
 (A) DOXFORD (B) FORDOX
 (C) OXFORD (D) FOXORD

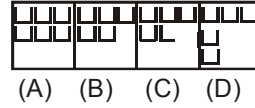
58. In a row A is standing on the 11th place. B is standing on the 4th place behind him. C is standing on the 12th place before B. So what will be the position number of a boy standing between C and A ?
 (A) 5th (B) 8th
 (C) 6th (D) 7th

Direction : (59) In the following questions, some figures are given in a sequence. Find out the figure from the alternatives, which will come in place of the question mark to continue the sequence.

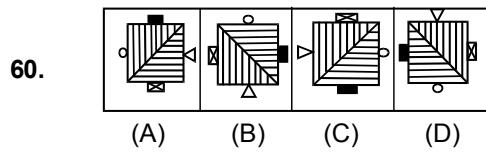
59. Problem Figure



Answer Figure



Direction : (60) In the following questions, there are figures of which three are similar in a certain way, and one is different. Find the one that is different from the rest.



(Space For Rough Work)

SAMPLE PAPER-1
CLASS-IX(ANSWER KEY)

Ques	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	B	B	C	D	C	C	B	D	D	C	A	B	A	B	B
Ques	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	D	B	A	C	C	D	A	B	C	A	C	C	B	C	B
Ques	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	C	A	A	A	A	B	B	D	C	B	A	D	B	B	D

SAMPLE PAPER-2
CLASS-IX(ANSWER KEY)

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	C	C	D	B	B	D	C	B	B	D	C	C	D	D	C
Ques.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	D	B	D	B	B	A	D	A	A	B	C	A	C	C	C
Ques.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	B	C	C	B	A	C	A	D	A	C	A	B	D	B	D
Ques.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	C	C	D	B	C	A	C	A	B	A	C	B	B	C	D

SAMPLE PAPER-3
CLASS-IX(ANSWER KEY)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
D	D	C	D	C	B	B	C	C	A	B	C	C	D	D
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
C	C	B	C	A	C	D	B	C	C	A	B	A	B	D
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
D	B	B	A	C	A	A	B	D	D	C	C	A	C	C
46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
C	A	B	B	B	A	A	A	C	B	A	C	D	B	C