**KARNATAKA RESIDENTIAL EDUCATIONAL INSTITUTIONS SOCIETY,BENGALURU.**

**MODEL QUESTION PAPER:2020-21**

**MULTIPLE CHOICE QUESTIONS**

**SET- 1**

**Subject: MATHEMATICS** **Duration: 1hour**

**Class: 10th Standard** **Maximum Marks: 40**

**Four alternatives are given for each of the following incomplete statement/question. Choose the most appropriate alternative and shade the correct choice in the OMR given to you with blue / black ball point pen.**

1. In an A.P if a=28, d=-4 and n=7 then $a_n$=……
   A) 4 B) 5 C) 3 D) 7

2. If the first term of an A.P is 2 and common difference is -3 then its $n^{th}$ term is …….
   A) 2-3n B) 3-2n C) -1-3n D) 5-3n

3. In an A.P $a_n$=2n-1 and $a_{n+1}$=2n+1. Its common difference is……
   A) -2 B) 0 C) 1 D) 2

4. If a, b, c is in A.P then correct relation from the following is…….
   A) 2b=a-c B) a+c=2b C) b=c-a D) b=a+c

5. Sum of first n odd natural numbers is …….
   A) $n^2$ B) 2n C) $\frac{n(n+1)}{2}$ D) n(n+1)

6. If $\boldsymbol{x + y = 0}$ and $\boldsymbol{x - y = 6}$,then the values of x and y are respectively ……
   A) 3 and 3 B) 3 and -3 C) 0 and 3 D) -3 and 0

7. If a pair of linear equations in two variables $\boldsymbol{3x + 2y = 4}$ and $\boldsymbol{6x - ky = 8}$ have infinitely many solutions,then the value of k is……
   A) - 4 B) 4 C) 8 D) 1

8. If a pair of linear equations in two variables is consistent then the lines represented by two equations are ……
   A) Intersecting B) Parallel
   C) Always coincident D) Intersecting & Coincident

9. The cost of 2 pens and 3 pencils is ₹ 45 and the cost of 3 pens and 4 pencils is ₹50.These can be represented in form of pair of equations as …….

A) 3x+2y=45 B) 2x+3y=45 C) 2x+y=45 D) 2x+3y= 45

3x+4y=50 3x+4y= 50 3x + y=50 2x + 4y=50

10. The length of tangent drawn to a circle of radius 5cm is 12 cm.Then the distance of external point to the centre of circle is……

A) 7cm B) 17cm C) 14cm D) 13cm

11. In the figure, secant of the circle with centre 'O' is

A) XY B) OP

C) MN D) AB

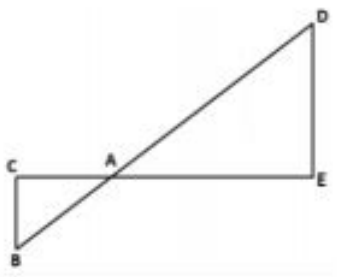
12. In a circle, the angle between the tangent and the radius at the point of contact is….

A) $45^o$ B) $90^o$ C) $60^o$ D) $30^o$

13. Maximum number of tangents drawn to a circle from an external point is……

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

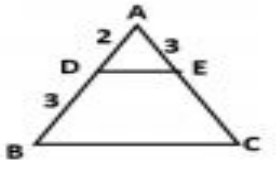
14. In the figure, $\Delta\mathbf{ADE} \sim \Delta\mathbf{ABC}$. If AE=10cm, BC=3.5cm and DE =7cm then AC= ……




A) 3.5 cm B) 5cm

C) 7.5 cm D) 10cm

15. In $\Delta\mathbf{ABC}$, if $\angle\mathbf{ADE} = \angle\mathbf{ABC}$ as shown in figure. Then CE = ……




A) 4.5 cm B) 3 cm

C) 5 cm D) 6 cm

16. If $\Delta\mathbf{ABC}\sim\Delta\mathbf{DEF}, \mathbf{BC} = \mathbf{3cm}$, $\mathbf{EF} = \mathbf{4cm}$ and area of $\Delta\mathbf{ABC} = \mathbf{54}\boldsymbol{cm^2}$ then the area of $\Delta\mathbf{DEF}$ is…….

A) $25cm^2$ B) $96cm^2$ C) $100cm^2$ D) $108cm^2$

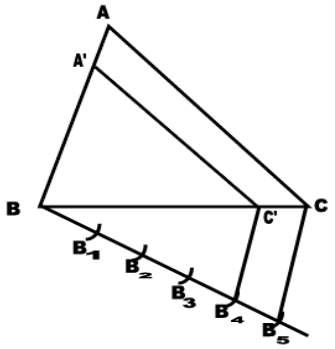
17. In ΔPQR, if PQ=10cm, QR= 8cm and PR=6 cm then, $\angle\mathbf{R}$ = ……...

A) $\mathbf{45}^{\circ}$ B) $\mathbf{60}^{\circ}$ C) $\mathbf{80}^{\circ}$ D) $\mathbf{90}^{\circ}$

18. While constructing a pair of tangents a given circle such that, the angle between the tangents to be $60^{\circ}$, then the measure of angle between the radii to be taken is,

A) $90^{O}$ B) $30^{O}$ C) $180^{O}$ D) $120^{O}$

19. In the figure,$\Delta A'BC'$ is constructed similar to the $\Delta ABC$ with the scale factor,




A) $\frac{4}{5}$ B) $\frac{1}{5}$

C) $\frac{5}{4}$ D) $\frac{1}{4}$

20. The degree of a quadratic equation is …….

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

21. The discriminant of a quadratic equation is…….

A) $b^2$-2ac B) $b^2$-4ac C) $b^2$-ac D) $a^2$-4bc

22. Quadratic equation among the following is …….

A) x (x-1)=0 B) 2x+7=y C) $x^2$-x(x+4) =0 D) 2(x-3) =0

23. Standard form of a quadratic equation is…….

A) $ax^2+bx+c=0$ B) $ax+bx^2-c=0$ C) $ax^2+by+c=0$ D) $bx^2+c=a$

24. The product of two consecutive positive integers is 306. Its quadraticEquation form is…….

A) $x^2+x-306=0$ B) $x^2-x+306=0$ C) $x^2+x+306=0$ D) $x^2-x-306=0$

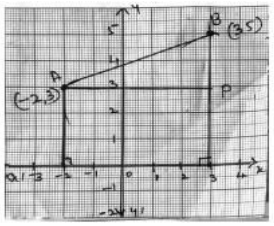
25. The distance between the points A(0, 5) and B(-5, 0) is……

A) 5 units B) $2\sqrt{5}$ units C) $5\sqrt{2}$ units D)$\sqrt{10}$ units

26. Co-ordinates of the midpoint of the line joining points A (2, 3) and B (4, -1) is

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

27. In the given graph the length of 'AP' is……



A) 2 units B) 5 units

C) 3 units D)4 units

28. The coordinates of the point which divides the join of $(x_1, y_1)$ and $(x_2, y_2)$ in the ratio $m_1$: $m_2$internally, are ……

A) $\left(\frac{m_1x_2-m_2x_1}{m_1-m_2}, \frac{m_1y_2-m_2y_1}{m_1-m_2}\right)$ B) $\left(\frac{m_1x_2+m_2x_1}{m_1+m_2}, \frac{m_1y_2+m_2y_1}{m_1+m_2}\right)$

C) $\left(\frac{m_1x_2-m_2x_1}{m_1+m_2}, \frac{m_1y_2-m_2y_1}{m_1+m_2}\right)$ D) $\left(\frac{m_1x_2+m_2x_1}{m_1-m_2}, \frac{m_1y_2+m_2y_1}{m_1-m_2}\right)$

29. Area of the triangle with vertices P(0, 6), Q(0,2) and R(2, 0) is……

A) 4 square unit B) 0 C) 8 square unit D) 6 square unit.

30. The ratio of the length of a tree and its shadow is $1:\sqrt{3}$ , the angle of sun's elevation is ……

A) $60^0$ B) $45^0$ C) $30^0$ D) $90^0$

31. The ratio of SinΘ is ……

A) $\frac{Oppositeside}{hypotenuse}$ B) $\frac{Adjacentside}{hypotenuse}$

C) $\frac{hypotenuse}{Adjacentside}$ D) $\frac{Oppositeside}{Adjacentside}$

32. The value of $\sin 90^o + \cos 60^o$ is ……

A)1 B) $\frac{1}{2}$ C) $\frac{2}{3}$ D)$\frac{3}{2}$

33. Formula to calculate mode for grouped frequency distribution is ……

A) $l + \left(\frac{f_1 - f_0}{2f_1 - f_0 - f_2}\right) Xh$

B) $l + \left(\frac{f_1 - f_2}{2f_1 - f_0 - f_2}\right) Xh$

C) $l + \left(\frac{f_1 - f_0}{2f_0 - f_1 - f_2}\right) Xh$

D) $l + \left(\frac{f_1 + f_0}{2f_1 + f_0 + f_2}\right) Xh$

34. The midpoint of the class interval 5 – 25 is ……

E) 5 B) 10 C) 15 D) 20

35. The median class of the following distribution is _____

| **CI** | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 |
|---|---|---|---|---|---|---|---|
| **F** | 4 | 4 | 8 | 10 | 12 | 8 | 4 |

A) 20-30 B) 30-40 C) 40-50 D) 50-60

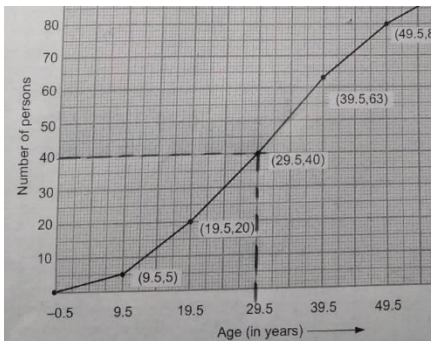
36. If the following figure represents less than type of ogive then the median is _____

A) 9.5

B) 19.5

C) 29.5

C) 39.5




37. If we join two hemispheres of same radius along their bases, then we get a;

A) Cone B)Cylinder C)Sphere D) Cuboids

38. If r is the radius of the sphere, then the surface area of the sphere is given By ……

A)4 π $r^2$ B)2 π $r^2$ C)π $r^2$ D)$\frac{4}{3}$ π$r^2$

39. If the slant height of a frustum of a cone is 4cm and radii of its two circular ends are 5cm and 2cm, then its curved surface area is …….

A) 88 $cm^2$ B) 22$cm^2$ C) 48 $cm^2$ D)108$cm^2$

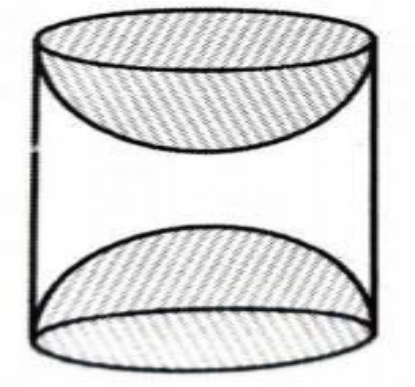
40. A wooden article is made by scooping out hemisphere from each end of the solid cylinder. The total surface area of the article is…….

A) $2\pi rh + 4\pi r^2$

B) $2\pi$rh + $\pi r^2$

C) $2\pi rh + 2\pi r^2$

D) $2\pi r\ (r + h)$



**MULTIPLE CHOICE QUESTION BASED PRACTICE PAPER- 1**

2020-21

CLASS –10 Max Marks – 40

CODE NO:83E

TIME : 1 Hour

**Subject: Science**

41. A wire of resistance $R_1$ is cut into five equal pieces. These five pieces of wire are then connected in parallel. If the resultant resistance of this combination be $R_2$, then the ratio $R_1/ R_2$ is:
    A. 1/25
    B. 1/5
    C. 5
    D. 25

42. The instrument used for measuring electric current is:
    A. Ammeter
    B. Galvanometer
    C. Voltmeter
    D. Potentiometer

43. An electric bulb is connected to a 220V generator. The current is 0.50 A. What is the power of the bulb?
    A. 440 W
    B. 110 W
    C. 55 W
    D. 0.0023 W

44. The potential difference across a 6Ω resistor is 12V. the current flow in the resistor will be
    A. ½ A
    B. 1 A
    C. 2 A
    D. 6 A

45. When the diameter of a wire is doubled, its resistance becomes
    A. Double
    B. Four times
    C. One-half
    D. One-fourth

46. A current carrying straight line conductor magnetic field lines are arranged like
    A. Straight lines parallel to conductor
    B. Straight lines perpendicular to conductor.
    C. Concentric circles perpendicular to the plane of conductor
    D. Concentric circles in the plane of conductor

47. The magnetic field inside a solenoid is
    A. infinite
    B. zero
    C. Uniform
    D. Non-uniform

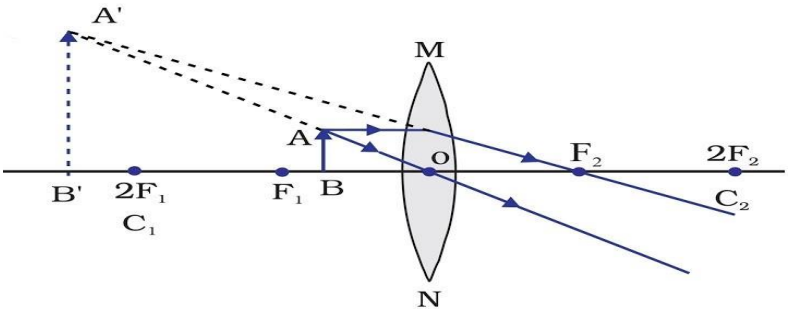
48. The Part of a motor which change the direction of flow of current is
    A. Armature
    B. Brushes
    C. Split rings
    D. Magnets

49. The main component of biogas
    A. Methane
    B. Carbon dioxide
    C. Hydrogen
    D. Hydrogen sulphide

50. Optimal wind speed for power generation from wind mills
    A. 5 km/hr
    B. 8 km/hr
    C. 15km/hr
    D. 25km/hr

51. In the experiment of refraction of light through a glass slab, which of the following situation refraction of light takes place When the,
    A. Angle of incidence is 90°.
    B. Angle of incidence is more than 90°.
    C. Angle of incidence is less than 90°.
    D. Angle of incidence is 0°.

52. Observe the picture, relative size and nature of the image formed is




    A. Highly diminished, real and inverted
    B. Enlarged, real and erect
    C. Enlarged, virtual and erect
    D. Enlarged, real and inverted

53. The focal length of convex lens is 0.25 m calculate the power of lens
    A. +1D
    B. +2D
    C. +3D
    D. +4D

54. A concave lens has focal length of 15 cm. At what distance should the object from the lens be placed so that it forms an image at 10 cm from the lens?
    A. +30cm
    B. -30mm
    C. -30cm
    D. +30mm

55. Which of the following is an olfactory indicator?
    A. Red cabbage
    B. Litmus
    C. Turmeric
    D. Clove.

56. Acid present in honey bee bite
    A. Methanoic acid
    B. Lactic acid
    C. Citric acid
    D. Tartaric acid.

57. The pH value of the solutions A, B, C and D is 6, 3, 11 and 12. respectively.
    Which one of these has more acidic property?
    A. Solution A
    B. Solution B
    C. Solution C
    D. Solution D

58. The element A is very soft in nature and can be cut with knife. This is very reactive to air and cannot be kept open. It reacts vigorously with water. Identify the element from the following.
    A. Mg
    B. Na
    C. P
    D. Ca

59. Example for amphoteric oxide
    A. $Na_2O$
    B. $Al_2O_3$
    C. $K_2O$
    D. CuO

60. The components used to fuse electrical wires
    A. Iron and cobalt
    B. Copper and tin
    C. Iron and Nickel
    D. Lead and tin

61. An example for saturated hydrocarbon is
    A. Ethyne
    B. Hexane
    C. Propene
    D. Butene

62. The hydro carbon which undergoes addition reaction is
    A. $C_2H_4$
    B. $C_2H_6$
    C. $C_3H_8$
    D. $CH_4$

63. While cooking, if the bottom of the utensil is getting blackened on the outside, it means that:
    A. The food is not cooked completely.
    B. The fuel is not burning completely.
    C. The fuel is wet.
    D. The fuel is burning completely.

64. Carbon has the unique ability to form bonds with other atoms of carbon, giving rise to large molecules. This property is called
    A. Isomerism
    B. Allotropy
    C. Catenation
    D. Hydrogenation

65. Which of the following rule states that, Properties of elements are a periodic function of their atomic number.
    A. Dobereiner's law of Triads
    B. Newlands' Law of Octaves
    C. Mendeleev's Period Law
    D. Moseley's Modern Periodic Law

66. In modern periodic table, as we move from left to right the metallic property of the elements
    A. Increases
    B. Does not change
    C. Decreases
    D. First increases and then decreases

67. The unit helps in clotting of blood
    A. Platelets
    B. White blood cells
    C. Red blood cells
    D. Plasma

68. The structure and functional unit of the excretory system
    A. Neuron
    B. Ureter
    C. Bladder
    D. Nephron

69. A Small space between the two neurons is
    A. Nerve cell
    B. Synapse
    C. Dendrite
    D. Axon

70. The phenomenon of growth of shoot towards light is
    A. Hydrotropism
    B. Phototropism
    C. Chemotropism
    D. Phototropism

71. The Blood pressure, salivation and vomiting are controlled by
    A. Cerebrum
    B. Medulla
    C. Cerebellum
    D. Pons

72. Transfer of pollen grains from stigma to ovary is called:
    A. Pollination
    B. Ovulation
    C. Fertilization
    D. None of these

73. Sex of a child will be determined by
    A. X chromosome of father
    B. X chromosome of mother
    C. Y chromosome of father
    D. Chromosomes of both father and mother

74. The embryo gets nutrition from the mother's blood with the help of a special tissue called
    A. Uterus
    B. Placenta
    C. Zygote
    D. Womb

75. An example for homologous organ is
    A. Wing of bat and bird
    B. Embryos of man and bird
    C. Fossils of vertebrates and invertebrates
    D. Forelimbs of man and bird

76. According to the evolutionary theory formation of a new species occurs generally due to
    A. Sudden creation by nature.
    B. Accumulation of variations over several generations
    C. Clones formed during asexual reproduction
    D. Movement of individuals from one habitat to another.

77. Which of the following characters can be acquired but not inherited?
    A. Colour of skin
    B. Size of body
    C. Colour of eyes
    D. Texture of hair

78. Which of the following radiations is responsible for the conversion of atmospheric oxygen to ozone?
    A. Gamma radiations
    B. Cosmic radiations
    C. Infrared radiations
    D. Ultraviolet radiations

79. The quality of environment can be improved by-
    A. Deforestation
    B. Overuse of natural environment
    C. Erosion
    D. Conservation

80. The scientific method to conserve soil and water is
    A. Construction of dams
    B. Watershed management
    C. Rainwater harvesting
    D. Afforestation

**Modal Qp -01**

**SSLC SOCIAL SCIENCE**

**MULTIPLE CHOICE QUESTIONS FOR 2021 EXAM**

1. The "Gate of European trade" was

a) Italy b) France c) Constantinople d) Calicut

2. Through these wars, the English had made other Europeans countries not to challenge them in India.

a) Carnatic wars b) Anglo Maratha war c) Anglo Mysore war d) Plassey and Buxar war

3. Who started the Civil Service System in India?

a) Lord Dalhousie b) Mackaley c) Lord Cornwallis d) Lord Wellesley

4. Hyder Ali died in this battle

a) Battle of Porto Nova b) Battle of Plasseyc) Battle of Maduraid) Battle of Madrass

5. Where did Dayananda Saraswathi started the Head office of Arya Samaja?

a) Lahore b) Kolkata c) Mumbai d) Madras

6. The first war of India's independence held in the year

a) 1858. b) 1857. c) 1899. d) 1757

7. Lord Lytton Vernacular Press Act passed to

a) Freedom of press b) Spread awareness about Govt policies

c) Curb independence of Press d) Publish any article

8. Kheda and Champaran Satyagraha started by

a) Gandhiji b) Jawaharlal Nehruc) Radicals d) Extremists

9. Reorganization of states Commission president.

a) Nanjundappa b) H N Kunzru c) K M Panikkar d) Fazal Ali

10. How many princely states were in India?

a) 560 b) 561 c) 562 d) 563

11. In India Muhammad Ali and Shaukat Ali started

a) Chipko movement b) Kheda Satyagraha c) Khilafat movement d) Direct action day

12. Indian National Congress founded by

a) A. O. Hume b) WC Banerjee c) Lord Cornwallis d) Lord Wellesley

13. Inaam Commission introduced because

a) To give lands as gift b) To increase taxation

c) To cancel all honor d) To take back gifted lands

14. The program implemented by Government of Karnataka for the development of rural women is.

a) Lok Ayukta b) Stree Shakti c) Sakshara Bharatd) Family planning program

15. The article deals with foreign policy of India

a) 52 b) 55 c) 51 d) 17

16. Indo China war held in the year

a) 1962. b) 1999. c) 1963. d) 1965

17. 1948 is an important year in the history of UNO, because on that day.

a) Disarmament was achieved b) UNO was established

c) Human Rights were declared d) Discrimination was ended

18. UNO was established in the year

a) Oct 24 1945 b) Sept 24 1945 c) Oct 23 1945 d) Oct 24 1946

19. Article tells that providing Social Justice People welfare is the duty of government

a) 38. b) 39 . c) 40. d) 42

20. "Human society is formed on natural inequalities" It is mentioned in the book

a) Republic. b) Politics c) Gulamagiri. d) Mookanayaka

21._____ is a large, disorganized, and often violent crowd of people.

a) Reformationsb) Mob violence c) Movement. d) Mob

22. Dowry deaths have been brought under the purview of.

a) Indian Criminal Procedure code b) Indian legal Procedure code

c) Indian regulation Procedure code d) Indian supervision Procedure code.

23. The highest peak in the world.

a) Mount Godwin Austin b) Mount Everest c) Annaimudi d) Aravali hills

24. India's climatic type

a) Equatorial climateb) Temperate monsoonc) Tropical Monsoon d) Tropical climate

25. It is formed from sediment deposited by rivers

a) Alluvial soil b) Black soil c) Red soil d) Mountain soil

26. Rosewood and Mahogany trees found here

a) Desert forest b) Evergreen forest c) Mountain forest d) Deciduous forest

27. The birth place of River Ganga.

a) Gangotri. b) Mount Kailash c) Tibet. d) Talakaveri

28. Utilisation of land for different purpose is called

a) Agriculture b) Land utilisation c) Urbanisation d) Horticulture

29. Prime minister Gram Sadak Yojana is implemented for this reason

a) To convert Mud road into metal road b) For Welfare

c) For Urbanization d) To provide Roads

30. First cotton industry started in 1854 at

a) Mumbai b) Ahmadabad c) Kochi d) Varanasi

31. Wind blows spirally in words towards the centre of the low pressure it is associated with atmosphere

a) Cyclone b) Tsunami c) Flood. d) Land slides

32. Mangrove forests and other deep rooted trees can be grown along the coast line to check impact of

a) Storms. b) Monsoons c) Cyclonic winds d) Currents

33. It refers to the inundation of land by river water

a) Flood b) River c) Slide d) Rainfall

34. Southwest monsoon winds causes intensive coastal erosion along the_____ of India

a) East coast. b) West coast c) South coast d) North West coast

35. The total value of all goods and services produced in a country during one year is called

a) Per capita income b) National income c) Development d) Economic development

36. Panchayat Raj came to existence in

a) 1993 b) 1996 c) 1995. d) 1990

37. The account opened for a purpose to save for a future date.

a) Saving Bank Account b) Fixed deposit Account

c) Current Account d) Recurring Deposit Account

38. Businessmen and Traders usually open this account in Bank.

a) Saving Bank Account b) Current Bank Account

c) Recurring Deposit Account d) Fixed Deposit Account

39. Fees or stamp duty for the consumer complaint.

a) 10/- Rs b) 100/- Rs c) 1000/- Rs d) No Fee

40. The other name of the Consumer is _____

a) Provider b) Producer c) Supplier d) User