Danish Sir's Practice Papers

SSLC MCQ PRACTICE PAPER (July – 2021 Exam)

Sub: Maths, Science, Social (40 Marks Each)

Code no. 2106-26

Time: 2 Hour | Total Marks: 120

MATHEMATICS

1. A vertical pole of 10m casts a shadow of 8m at certain time of the day. The length of shadow cast by a tower standing next to the pole of height 110m is

   (a) 80m **(b) 18m**
   (c) 88m **(d) 100m**

2. The pair of linear equation 2x+ 3y – 9 =0 and 4x +6y – 18 = 0 represents two lines which are …….

   (a) Interesting lines **(b) Parallel lines**
   (c) Perpendicular to each other **(d) Coinciding lines**

3. If the roots of the equation $12x^2 + mx + 5 = 0$ are in the ratio 3:2,m equals

   (a) $\frac{1}{12}$ **(b)** $\frac{5}{12}$
   (c) $5\sqrt{10}$ **(d)** $\frac{5}{12}\sqrt{10}$

4. The co ordinates of a point on x- axis which lies on the perpendicular bisector of the line segment joining the points (7,6) and (-3,4) are

   (a) (0, 2) **(b) (3, 0)**
   (c) (0, 3) **(d) (2, 0)**

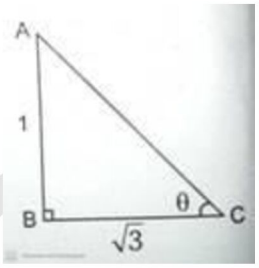
5. The mean and median of a data are 14 and 15 respectively. The value of mode is

   (a) 16 **(b) 17**
   (c) 13 **(d) 18**

6. A solid has been melted and recast in to a wire ,which of following remains the same

   (a) length **(b) Height**
   (c) radius **(d) Volume**

7. In the figure, the angle of elevation ϕ is



   (a) 30° **(b)** 45°
   (c) 90° **(d)** 60°

8. The ratio of the length of a pole and its shadows is 1 : $\sqrt{3}$. The angle of elevation of of the sun is :

   (a) 90^0 **(b) 60^0**
   (c) 30^0 **(d) 45^0**

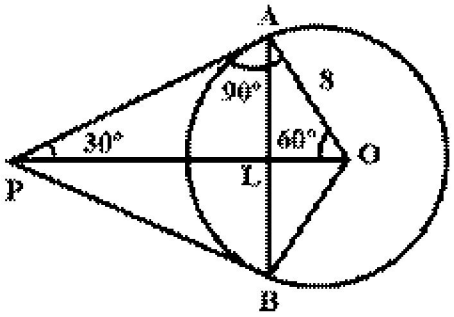
9. In an A.P. if S_5=35 and S_4=22, then the 5th term is

   (a) 10 **(b)** 13
   (c) 22 **(d)** 35

10. The value of a cos 48° - sin 42° is

    (a) 0 **(b)** $\frac{1}{4}$
    (c) $\frac{1}{2}$ **(d)** 1

11. In he adjoining figure if °,then < AOP is



(a) 90° **(b) 180°**
(c) 60° **(d) 30°**

12. In S = $\frac{1}{2}\ at^2\ if$ **S= 72,a=4 then the value of** 't' is

(a) 8 **(b) 6**
(c) 5 **(d) 7**

13. 3 circles with centes A,B and C touch each other externally. If the radii of these circles are 6cms,5cms and 4cms then the perimeter of ΔABC is

(a) 15cms **(b) 12cms**
(c) 6 cms **(d) 30cms**

14. If x=a,y=b is the solution of the equations x-y = 2 and x + y=4, then the values of a and b are respectively.

(a) 3and 5 **(b) 5and 3**
(c) 3and 1 **(d) -1 and -3**

15. Sec A is same as

(a) Sin A **(b)** $\frac{1}{\cos A}$

(c) Cos A **(d)** $\frac{1}{\sin A}$

16. If $l^2 = r^2 + h^2$ then the value of 'r' is equal to

(a) R = $l^2 - h^2$ **(b)** $r^2 = \sqrt{l^2 + h^2}$

(c) $r^2 = \sqrt{l^2 - h^2}$ **(d) R = l-h**

17. The remainders obtained when a number is divided by 5 are

(a) 0,1,2,3,4,5 **(b)** 0,1,2,3,4,
(c) 0,1,2,3, **(d)** 0,1,2,3,

18. The ratio of volume of a cone and a cylinder of equal diameter and equal height is

(a) 3:1 **(b) 1:3**
(c) 1:2 **(d) 2:1**

19. Sum of first 'a' terms of an AP is "n", then the common difference is

(a) 3 **(b) 4**
(c) 2 **(d) -3**

20. If a pole of height 6 m casts a shadow $2\sqrt{3}\ m$ long on the ground, then the sun s elevation is :

(a) 30^0 **(b) 60^0**
(c) 45^0 **(d) 90^0**

21. Find the value of sin 30 ◦ + cos 60 ◦

(a) 2 **(b)** 4
(c) 1 **(d)** 3

22. The maximum value of $\cos\theta$ could be

(a) 2/√3 **(b) √3/2**
(c) (1,2) **(d) √2**

23. $9\sec^2 A - 9\tan^2 A$ =

(a) 1 **(b) 9**
(c) 8 **(d) 0**

24. A box contains 90 discs, numbered from 1 to 90. If one disc is drawn at random from the box, the probability that it bears a prime-number less than 23, is [2013]

(a) $\frac{7}{90}$ **(b)** $\frac{10}{90}$

(c) $\frac{4}{45}$ **(d)** $\frac{9}{89}$

25. If the first term and the common differences of an A.P. are 6 and 5 respectively, find its 3rd term.

(a) 12 **(b)** 22
(c) 36 **(d)** 16

26. **The pair of equations 2x+y=5,3x+2y=8 has**

(a) Unique solution **(b) Two solutions**
(c) No solutions **(d) Infinitely many solutions**

27. Which one of the following is correct?

(a) $^{A}C^{2} - {}^{A}B^{2} = {}^{B}C^{2}$ (b) $^{A}B^{2} - {}^{B}C^{2} = {}^{A}C^{2}$

(c) $^{A}C^{2} + {}^{A}B^{2} = {}^{B}C^{2}$ (d) **AB+BC=AC**

28. If A= $2\pi r^2$,*then the value of* ŕ is

(a) $\pm\frac{\sqrt{2\pi}}{A}$ (b) $\pm\frac{\sqrt{A}}{2\pi}$

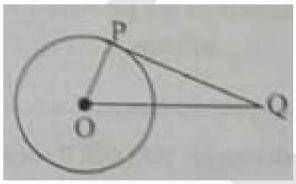
(c) $\pm\frac{\sqrt{2A}}{\pi}$ (d) $\pm\frac{\sqrt{\pi}}{2A}$

29. In the figure AB=12cms, AD=7cms,AC=18cms and DE ||BC then the length of AE is

(a) **10.5cms** (b) **7.5cms**

(c) **11.5cms** (d) **12.5cms**

30. In the figure PQ is tangent to the circle with 'O' If Angle POQ= half of 60^0 then ∟P and Q ∟ respectively are



(a) **100^0,50^0** (b) **30^0,60^0**

(d) **90^0,**

(c) **90^0,30^0**

60^0

31. If the lines drawn to the linear equations of the type $a_1 x + b_1 y + c_1 = 0$ and $a_2 x + b_2 y + c_2 = 0$ are coincident on each other, correct relation among the following is

(a) $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$ (b) $\frac{a_1}{a_2} \neq \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$

(c) $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$ (d) $\frac{a_1}{a_2} \neq \frac{b_1}{b_2} = \frac{c_1}{c_2}$

32. When the angle of elevation of sun is 300 the length of the shadow cast by 50 m high building is

(a) $50/\sqrt{3}\,m$ (b) $50\sqrt{3}\,m$

(c) $25\sqrt{3}\,m$ (d) $300\sqrt{3}\,m$

33. If the angle between two radii of a circle is 140^0, then the angle between the tangents at the ends of the radii is :

(a) **90^0** (b) **50^0**

(c) **70^0** (d) **60^0**

34. The number of solutions of the pair of linear equations x+2y-8=0 and 2x +4y=16 have

(a) **0** (b) **1**

(c) **Infinitely many** (d) **None**

35. The distance between origin and the point $P(x_1y_1)$is

(a) $\sqrt{x^2{}_1 + y^2{}_1}$ (b) $\sqrt{x^2{}_1 - y^2{}_1}$

(c) $\sqrt{x^2{}_1 / y^2{}_1}$ (d) $\sqrt{x^2{}_1 \div y^2{}_1}$

36. For the following distribution.

Marks less than	10	20	30	40	50	60
no. of sutdents	3	12	27	57	75	80

The modal class is :

(a) **10-20** (b) **20-30**

(c) **30-40** (d) **50-60**

37. If one root of $px^2+qx+r=0$ is reciprocal of the other root then

(a) **p=q** (b) **q= r**

(c) **p = r** (d) **p=q=r**

38. The distance between the point (4, 3) and the Origin is

(a) 7 Units (b) 25 Units

(c) 5 Units (d) 6 Units

39. The formula used to find the curved surface area of a cone of radius (r), height (h) and slant height (1) is

(a) CSA = πrl (b) CSA = $2\pi(r + l$

(c) CSA = $2\pi(r + h)$ (d) CSA = $\frac{\pi r^2 h}{4}$

40. The empirical relationship between the three measures of central tendency is,

(a) 3 median = mode + 2 mean
(b) median = 4 mean
(c) 3 median = mode - 2 mean
(d) mean = 2 median +3 mode

SCIENCE

1. In a locality, hard water, required for an experiment, is not available. However, the following salts are available in the school laboratory

(a) Sodium sulphate
(b) Calcium sulphate
(c) Magnesium chloride
(d) Calcium chloride

Sodium chloride
Potassium sulphate

2. Which of the following statements about the Modern Periodic Table is correct:

(a) It has 18 horizontal rows known as Periods.
(b) It has 7 vertical columns known as Periods.
(c) It has 18 vertical columns known as Groups.
(d) It has 7 horizontal rows known as Groups.

3. Emasculation process in plants involves

(a) removal of anthers of flowers well before maturity of gynoecium of flowers.
(b) removal of gynoecium of flowers well before the maturity of anthers of flowers.
(c) removal of anther and gynoecium of flowers simultaneously before the maturity of flowers.
(d) neither of these.

4. An element common to all acids is

(a) Oxygen
(b) Hydrogen
(c) Nitrogen
(d) Carbon

5. An example of abiotic component is

(a) Plants
(b) soil
(c) microorganisms
(d) animals

6. Which one of the following is renewable resource?

(a) Wildlife
(b) Coal
(c) Natural gas
(d) Petroleum.

7. A student sitting on the last bench in the class cannot read the writing on the blackboard clearly but be can read the book lying on his desk clearly Which of the following statement in

about the student

(a) the near point of his eyes has receded away
(b) the near point of his eyes has come closer to him
(c) The far point of his eyes has receded away
(d) The far point of his eyes has come closer to him

8. We can see the sun before the actual sunrise by about :

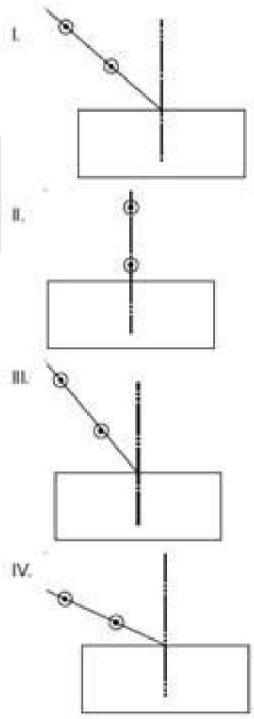
(a) 5 minutes
(b) 2 minutes
(c) 2 hours
(d) 20 minutes

9. The following gas is released when metals reacts with an acid

(a) CO_2
(b) H_2
(c) CO
(d) CH_4

10. Select from the following the best set-up for

tracing the path of a ray of light through a rectangular glass slab: [2013]



(a) I
(b) II
(c) III
(d) IV

11. Observe the following chemical equations andidentify the correct statement.

(i) CuSO,+ Fe FeSO4 + Cu

(ii) 2AgNO3 + Cu Cu(NO3)2 + 2Ag

(a) (a) Copper is more reactive than Iron and Silver.
(b) (b) Iron is less reactive than Copper and Silver.
(c) (c) Copper is more reactive than Silver but less than Iron.
(d) (d) Silver is more reactive than Copper and Iron.

12. **Which of the following is not a part of the female reproductive system in human beings**

(a) Ovary
(b) Uterus
(c) Vas deferens
(d) Fallopian tube

13. A red brown gas is released on heating lead nitrate. It is an example of

(a) Combination reaction
(b) Oxidation reaction
(c) Decomposition Reaction
(d) Reduction reaction

14. The main fuel used in thermal power stations

(a) Radioactive material
(b) coal
(c) petroleum
(d) natural gas

15. A student obtained a sharp image of the grills of a window on a screen using a concave mirror. His teacher remarked that for getting better results a well lit distance object (preferably the Sun) should be focused on the screen. What should be done for this purpose?

[2012, 2013

(a) Move the screen and the mirror towards the object
(b) Move the screen and the mirror away from the object
(c) Move the screen slightly away from the mirror
(d) Move the mirror slightly towards the screen

16. Which of the following will give displacement reactions?

(a) NaCl solution and copper metal
(b) MgCl2 solution and aluminium metal
(c) FeSO4 solution and silver metal
(d) AgNO3 solution and copper metal.

17. The pH of the gastric juices released during

(a) a) less than 7
(b) is b) more than 7
(c) digestion c)equal to 7
(d) d) equal to 0

18. The abbreviation IUCN stands for

(a) International Union for Conservation of Nitrogen.
(b) International Union for Conservation of Nature.
(c) International Union for Conservation of Nature and Natural Resources.
(d) International Union for Cryopreservation of Natural Resources,

19. Which of the following substance will not give carbon dioxide on treatment with dilute acid ?

(a) a) Marble
(b) b) Limestone
(c) c) Baking soda
(d) d) Lime

20. The hormone which increases the fertility in males is called

(a) Estrogen
(b) Testosterone
(c) Insulin
(d) Progesterone

21. Which of the following provides satisfactory explanation of biogenetic law ?

(a) Homologous organs
(b) Similarity among early embryos of vertebrates.
(c) Vestigial organs
(d) Analogous organs.

22. The refractive index of water with respect to air is 4/3. The refractive index of air with respect to water will be:

(a) 1.75
(b) 0.50
(c) 0.75
(d) 0.25

23. Refraction of light in the eye occurs at

(a) The lens only
(b) The cornea only
(c) Both the cornea and the lens
(d) The pupil

24. Electricity from the ocean can be generated based on utilizing.

(a) Kinetic energy of the waves but not stored thermal energy.
(b) Stored thermal energy but not kinetic energy of the wind.
(c) Kinetic energy of the waves as well as stored thermal energy.
(d) Neither kinetic energy of the waves nor stored thermal energy.

25. The PH value of mouth is

(a) 5.0
(b) 5.5
(c) 5.3
(d) 5.1

26. On moving from left to right in a period in the periodic table, the size of the atom.

(a) Increases
(b) Decreases
(c) Does not change appreciably
(d) First decreases and then increases.

27. If one hydrogen atom of propane is replaced by a ketone group, than the molecular formula of the compound obtained is

(a) C_4H_80
(b) C_3H_8O
(c) C_3H_6O
(d) $C_4H_{10}O$

28. The correct statement related to digestion in small intestine is

(a) Acidic food is made alkaline by bile juice
(b) Food is made acidic by hydrochloric acid
(c) Starch is digested due to the action of amylase
(d) Protein is digested due to the action of pepsin

29. Which of the following lenses would you prefer to use while reading small letters found in a dictionary?

(a) A convex lens of focal length 15cm
(b) A concave lens of focal length 50cm
(c) A convex lens of focal length 5 cm
(d) A convex lens of focal length 5cm

30. Nutrients are translocated in plants through -

(a) Xylem tracheids
(b) Phloem sieve tubes
(c) Xylem vessels
(d) Phloem companion cells.

31. The size of the pupil is controlled by which of these?

(a) Retina
(b) Ciliary muscles
(c) iris
(d) cornea

32. **Observe the following table**

Joule	**i) potential difference**
Coulomb	**ii) work done**
Volt	**iii)electric charge**

The correct arrangement is

(a) a-iii, b-I, c-ii
(b) a-ii, b-iii,, c-i
(c) a-I, b-ii, c-iii
(d) a-iii, b-ii, c-i

33. A heat producing device should be used in an electric. This device should have

(a) High resistance and low melting point
(b) low resistance and high melting point
(c) High resistance and high melting point
(d) Low resistance and low melting point

34. Part of the flower that develops into fruit and part of the seed that develop into root respectively are

(a) Ovary and plumule
(b) Plumule and radicle
(c) Ovary and radicle
(d) Ovary and ovule

35. In emergency situation, blood pressure is controlled by

(a) Adrenaline
(b) Prolactin
(c) Thyroxine
(d) Gonadotrophins.

36. Which of the following statements is incorrect regarding magnetic field lines?.

(a) The direction of magnetic field at a point is taken to be the direction in which the north pole magnetic compass needle points
(b) Magnetic field lines are closed curves.
(c) If magnetic field lines are parallel and equidistant, they represent zero field strength.
(d) Relative strength of magnetic field is shown by the degree of closeness of the field lines.

37. The group of organisms that reproduce through fission only is

(a) Amoeba, Hydra, spyrogyra
(b) Leishmania, Ameoba, yeast
(c) Ameoba, Plasmodiu, Planaria
(d) Plasmodium, Ameoba, leishmania

38. Which of the following is not a plant harmone

(a) Auxin
(b) Gibberins
(c) Thyroxin
(d) Cytokinins

39. The part of box-type solar cooker which is responsible for producing greenhouse effect is :

(a) plane mirror reflector **(b)** black coating inside the box
(c) glass sheet cover **(d)** utensils placed in the cooker box

40. The direction of the force on a current - carrying wire placed in a magnetic field depend

(a) the direction of the current but not on the direction of the field **(b)** the direction of the field but not on the direction of the current
(c) the direction of the current as well as the direction of the field **(d)** neither the direction of the current nor the direction of the field.

SOCIAL STUDIES

1. The Indian textiles could not be sold in England due to

(a) Heavy tariffs **(b)** Lack of transportation
(c) Heavy export **(d)** Poor quality

2. Jawahar Lal Nehru outlined Indian foreign policy on

(a) September 7 , 1946 **(b)** September 7, 1948
(c) December 25, 1946 **(d)** December 25,1948

3. Scrub forests and grassland are found in annual rainfall is .

(a) 10-50cm **(b)** 100-200cm
(c) 60-100cm **(d)** 200-250cm

4. Protection of children from Sexual Offences Act is brought into effect on

(a) June 19, 2012 **(b)** July 19, 2016
(c) July 31, 1948 **(d)** June 19, 2016

5. Quantitative Credit control Measure the following is the

(a) Change in lending margins **(b)** Bank rate policy
(c) Moral suassion **(d)** Direct action

6. The director of Balaji Tele films

(a) Azim Premji **(b)** Ekta kapoor
(c) Narayan Murthy **(d)** Naresh Goyal

7. The century is called as the century of political problems

(a) 18^{th} **(b)** 19^{th}
(c) 16^{th} **(d)** 17^{th}

8. The largest producer of rice in India is

(a) Andhra Pradesh **(b)** Punjab
(c) West Bengal **(d)** Karnataka

9. The famous declaration 'back to Vedas ' is given by

(a) Dayananda saraswathi **(b)** Raja ram mohan roy
(c) M. G.Ranade **(d)** Athmarama panduranga

10. The summer rainfall in Kerala is called as

(a) Kalabaisakhi **(b)** Mango showers
(c) Coffee blossoms **(d)** Andhis

11. The article gave permission to the establishment of minority educational institution .

(a) Article 21A **(b)** Article17
(c) Article29 **(d)** Article30

12. India and china established the BRICS in

(a) 2015 **(b)** 2016
(c) 1985 **(d)** 1963

13. The almatti dam is constructed across the river

(a) Kaveri **(b)** Krishna
(c) kosi **(d)** Mahanadi

14. India gets annual rainfall during rainy season is

(a) 10% **(b)** 2%
(c) 75% **(d)** 13%

15. The dictator of Italy was

(a) lenin **(b)** Stalin
(c) Hitler **(d)** Mussolin

16. The word wagh means

(a) Lion **(b)** Tiger
(c) Brave **(d)** Courage

17. The Construction of Damodar river project has resulted in

(a) Damodar as no more 'Sorrow of Bengal' **(b)** Increasing land slides
(c) Causing heavy earthquakes **(d)** Submerging many major industrial areas

18. India belongs to

(a) Underdeveloped country **(b)** Developed country
(c) Developing country **(d)** Backward country

19. An example for direct tax is.

(a) /value added tax **(b)** Central exercise duty
(c) Stamp duty **(d)** Service tax

20. The sikh people sighned a humiliating Lahore agreement in_____

(a) 1818 **(b)** 1846
(c) 1848 **(d)** 1857

21. The women and child development department started to provide

(a) Shelter **(b)** Health
(c) Education **(d)** Food

22. **India and china signed Panchaheela principles in**

(a) 1962 **(b) 1971**
(c) 1948 **(d) 1954**

23. The soil known as deposited soil is

(a) Black **(b)** Red
(c) Alluvial **(d)** Laterite

24. As per suggestion of swami Vivekananda , Chamaraja Wodeyar Xstarted schools for

(a) Touchables **(b)** Brahmins
(c) Christians **(d)** Untouchables

25. The Legislation comprising of four rights such as Citizen safety, Information, Appeal and remedy was adopted by.

(a) UK President **(b)** Indian President
(c) US President **(d)** Indian Prime Minister

26. The act that became the cause for JallianWallahBhagh massacre

(a) Factory act **(b)** Rowlat act
(c) Press act **(d)** Arms act

27. The First World War came to an end with the treaty of

(a) Versailles **(b)** Paris
(c) Geneva **(d)** Tashkent

28. The labour achieves social control through class, status and stratification is

(a) Child Labour **(b)** Economic Labour
(c) Social Labour **(d)** Division of Labour

29. The highest peak in the eastern ghats is

(a) Anamudi **(b)** K^2
(c) Guru shikhar **(d)** Armakonda

30. 6- 14 years children should get free and compulsory education and the article .

(a) 24 **(b)** 40
(c) 30 **(d)** 21A

31. Shivanasamudram hydal power station in the state of _____

32. The World Health Organist ion was founded in the year _____

33. Chipko movement took place in the year _____.

34. The first world war ended in _____.

35. The first war took place between _____and _____.

36. India's first president was _____.

37. In India ____ occur very after in hilly states.

38. Bengaluru International Air port is called _____

39. A fuel substance of plant origin is ____

40. The first modern paper mill set up in 19332 at _____