Danish Sir's Practice Papers

SSLC MCQ PRACTICE PAPER (July – 2021 Exam)

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

Code no. 2106-25

Time: 2 Hour | Total Marks: 120

MATHEMATICS

1. If the coordinates of the one end of a diameter of a circle are (2, 3) and the coordinates of its centre are (–2, 5), then the coordinates of the other end of the diameter are [2012]

(a) (–6, 7) **(b)** (6, –7)
(c) (6, 7) **(d)** (-6 ,- 7)

2. If the difference between the circumference and the radius of a circle is 37 cm, then using $\pi \frac{22}{7}$, the circumference of the circle is(in cm) [2013]

(a) 154 **(b) 44**
(c) 14 **(d) 7**

3. If the radius of the base of a right circular cylinder is halved, keeping the height same, then the ratio of the volume of the cylinder thus obtained to the volume of original cylinder is [2012]

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

4. The number of solid spheres, each of diameter 6 cm that can be made by melting a solid metal cylinder of height 45 cm and diameter 4 cm is [2014

(a) 3 **(b) 5**
(c) 4 **(d) 6**

5. A number is selected at random from the numbers 1 to 30. The probability that it is a prime number. [2014]

(a) $\frac{2}{3}$ **(b)** $\frac{1}{6}$
(c) $\frac{1}{3}$ **(d)** $\frac{11}{30}$

6. Find the value of $\sin 30^\circ + \cos 60^\circ$

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

7. A solid piece of iron is in the form of a cuboids of a dimensions 10cm x 5cm x 2cm. Find its volume

(a) $10cm^3$ **(b)** $1000cm^3$
(c) $100cm^3$ **(d)** $1cm^3$

8. $\tan^2 A$ is given by

(a) $\frac{\sin A}{\cos A}$ **(b)** $\frac{cos^2 A}{sin^2 A}$
(c) $1 + \cot^2$ **(d)** $\text{Sec}^2 A - 1$

9. If the n-th term of an arithmetic progression $a_n = 24 - 3n$,then its 2nd term is

(a) 18 **(b)** 15
(c) 0 **(d)** 2

10. In the angle between two tangents to a circle is 40° then the angle between their radii is

(a) 90° **(b) 10°**
(c) 140° **(d) 180°**

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

(a) $2/\sqrt{3}$ **(b) $\sqrt{3}/2$**
(c) (1,2) **(d) $\sqrt{2}$**

12. 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**

13. If 2x + 4y = 10 and 4x+py=30, Then the invalid statement among the following is

(a) It has unique solution if $p \neq 8$ **(b) It has unique solution if p=8**
(c) It has infinitely many solutions for p = 8 **(d) For p = 3 the graph of the above pair of equations is intersecting**

14. If cos 40=sin5Θ, $(0 \leq \theta \leq 90^\circ)$, then the value of θ is

(a) 90° **(b) 10°**
(c) 0° **(d) 45°**

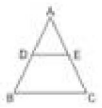
15. The sum of an arithmetic series with 15 terms is 180. Then the 8^{th} term is

(a) 8 **(b) 12**
(c) 15 **(d) 18**

16. In an A.P. T_{n+5} = 35 and T_{n+1} = 23, then common difference is

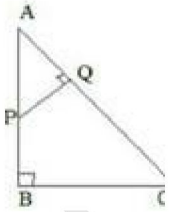
(a) 2 **(b) 2n**
(c) 3n **(d) 3**

17. 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**

18. In the figure ^{0}, then = $\frac{AQ}{AB}$



(a) $\frac{BC}{PQ}$ **(b)** $\frac{AC}{PQ}$
(c) $\frac{QP}{BC}$ **(d)** $\frac{AP}{AB}$

19. If the perimeters of two similar triangles are in the ration of 1:4 then the ratio between their areas will be

(a) $\sqrt{2}$ **: 1** **(b)** 1: 2
(c) 1: 4 **(d)** 1: 16

20. The value of k for which the pair of linear equations 4x + 6Y - 1= 0 and 2x + ky -7 = 0 represents parallel lines is

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

21. The pair of linear equations kx + 2Y = 5 and 3x +y = 1 has unique solution if

(a) K=6 **(b) K≠3**
(c) K=0 **(d) K has any valve**

22. The lines representing linear equations 2x-y=3 and 4x-y=5

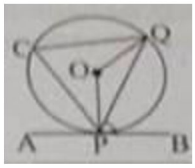
(a) Intersect at a point **(b) Are parallel**
(c) Are coincident **(d) Intersect at exactly two points**

23. The pair of linear equations **2x -3y=5and – 6y+4x -10=0 have**

(a) Two solution **(b) One solution**
(c) No solution **(d) Many solution**

24. APB is a tangents at P to the circle with center 'O'.

If ∟PQB =60^0 then ∟QCP =



(a) 30^0 (b) 120^0
(c) 90^0 (d) 60^0

25. From a point Q, the length of the tangent to a circle is 24 cm and the distance of Q from the centre is 25 cm. The radius of the circle is _____

(a) 7cm **(b) 12cm**
(c) 15cm **(d) 24.5cm**

26. If the point p (x, y) is equidistant from A(5,1) and B (-1,5), then

(a) 5x-y **(b) X=5y**
(c) 3x=- 2y **(d) 3x=2y**

27. The perimeter of the angle fomed by the points. (0,0),(1,0) and (0,)is

(a) $1\pm\sqrt{2}$ (b) $\sqrt{2}+1$
(c) 3 (d) $2+\sqrt{2}$

28. The nature of the roots of the equation y^2-6y+9=0 is

(a) Real and rational. **(b) Real and irrational.**
(c) Real and equal. **(d) imaginary**

29. If ' m' and ' n' are the roots of the equation of x^2-6x+2=0 then the value of m^2n+mn^2 is

(a) 6 **(b) 2**
(c) 12 **(d) 3**

30. The sum and $2k^2$= 3k respectively are

(a) $\frac{3}{2}$ and 0 (b) 0 and $\frac{15}{2}$
(c) $\frac{-15}{2}$ and 0 (d) 0 and $\frac{3}{2}$

31. In a quadratic equation if $b^2-4ac>0$ and not a perfect square number, then the roots are

(a) Real equal **(b) Imaginary**
(c) Rational **(d) Not equal**

32. (1+tan Ø+sec Ø)(1+cot Ø - cosec Ø) =

(a) 0 **(b) 1**
(c) 2 **(d) -1**

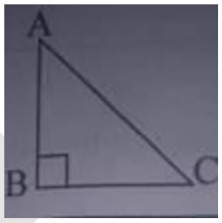
33. The ratio of the length of a pole and its shadows is 1 : $\sqrt{3}$. The angle of elevation of of the sun is :

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

34. If the altitude of the sum is 600, the height of a tower which casts a shadow of length 30 m is

(a) 30 $\sqrt{3}$ m (b) $\frac{30}{3}\sqrt{3}\,m$
(c) $15\sqrt{3}\,m$ (d) 15 m

35. If the angle of depression of an object from a 75 m high tower is 300, then the distance of the object from the base of tower is



(a) $25\sqrt{3}\,m$ (b) $50\sqrt{3}\,m$
(c) $75\sqrt{3}\,m$ (d) 150 m

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

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

37. If mode of the following data is 7, then value of k in 2,4,6,7,5,6,10, 6,7, 2k + 1,9,7,13 is :

(a) 3 **(b) 7**
(c) 4 **(d) 2**

38. If mode = 80 and mean = 110 then the median is :

(a) 110 **(b) 120**
(c) 100 **(d) 90**

39. The volume of a sphere (in cu,cm) is equal to its surface area (insq.cm). The diameter of the sphere (in cm) is :

(a) 3 **(b) 6**
(c) 2 **(d) 4**

40. The curved surface area of a right circular cone of height 15 cm and base diameter 16 cm is .

(a) $60\ \pi\ cm^2$ **(b)** $68\ \pi\ cm^2$
(c) $120\ \pi\ cm^2$ **(d)** $136\ \pi\ cm^2$

SCIENCE

1. Butanone is a four carbon compound having the functional group

(a) --COOH **(b)** --CHO
(c) -CO- **(d)** -OH

2. In Mendeleev's Periodic Table, gaps were left for the elements to be discovered later. Which of the following elements found a place in the periodic table later

(a) Germanium **(b)** Chlorine
(c) Oxygen **(d)** Silicon

3. Genetic drift operates only on

(a) Smaller populations **(b)** Larger populations
(c) Mendelian populations **(d)** Island populations.

4. Which of the following is a weak acid?

(a) Hydrochloric acid **(b)** acetic acid
(c) sulphuric acid **(d)** nitric acid

5. 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.

6. **In our country vat tracts of forests are cleared and a single species of plant is cultivated,this practice promotes.**

(a) Biodiversity in the are **(b) Monoculture in the area**
(c) Growth of natural forest **(d) Preserve the natural ecosystem in the area**

7. .The twinkling of stars is due to atmospheric :

(a) reflection of light **(b) Dispersion of light**
(c) interference of light **(d) Refraction of light**

8. Which color shows the presence of starch

(a) Blue **(b)** Green
(c) White **(d)** all of the above

9. Food cans are coated with tin and not with zinc because

(a) Zinc is costhier **(b) Zinc has higher melting point than tin**
(c) Zinc is more reactive than tin **(d) Zinc is less reactive than tin**

10. A ray of light travelling in water falls at right angles to the boundary of a parallel-sided glass block. The ray of light :

(a) is refracted towards the normal **(b)** is refracted away from the normal
(c) is refracted away from the normal **(d)** is reflected along the same path.

11. **Which of the following metals do not react with cold as well as hot water?**

(a) Na **(b) Ca**
(c) Mg **(d) Fe**

12. Characters transmitted from parents to offspring are present in -

(a) cytoplasm **(b)** ribosome
(c) golgi bodies **(d)** genes.

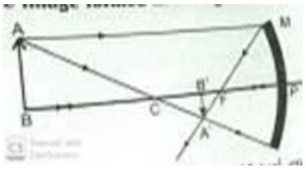
13. Fe2O3 + 2Al >>>> Al2O3 + 2Fe The above reaction is an example of

(a) Combination reaction **(b)** Double displacement reaction
(c) Decomposition Reaction **(d)** Displacement reaction

14. The two elements for which Mendeleev left blank places in his original periodic table were

(a) Si, Ti **(b)** Ga, Ge
(c) Al, Ga **(d)** As, Sb

15. Observe the figure, The image formed in the figure is



(a) Real, inverted, diminished
(b) Virtual, erect, diminished
(c) Virtual, erect, enlarged
(d) Real, inverted, enlarged

16. Which is a liquid non-metal?

(a) Carbon
(b) Bromine
(c) Hydrogen
(d) chlorine

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. Which factor is mainly responsible for increase in demand of natural

(a) Scientific advancement
(b) resources Use of biodegradable chemicals
(c) Increased human population
(d) Environmental pollution.

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. Which of the following is growth promoter hormone in plants?

(a) Auxin
(b) Abscisic acid
(c) Cytokinin
(d) Auxin and cytokinin

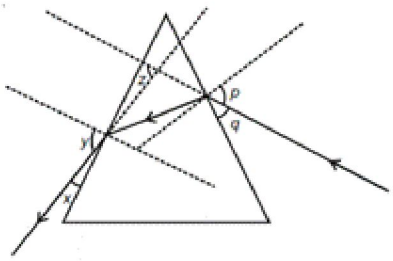
21. Major constituent of LPG is

(a) Ethane
(b) propane
(c) Pentane
(d) Butane

22. Which among the following elements has the largest atomic radii?

(a) Na
(b) Mg
(c) K
(d) Ca

23. Study the following ray diagram



In this diagram, the angle of incidence, the angle of emergence and the angle of deviation respectively have been represented by [2017]

(a) y, p, z
(b) x, q, z
(c) p, y, z
(d) p, z, y

24. The aviation fuel which is used in the engines of jet aeroplanes is:

(a) diesel
(b) kerosene
(c) petrol
(d) CNG

25. The PH value of mouth is

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

26. Upto which element,the low octaves was found to be applicable

(a) Oxygen
(b) Calcium
(c) Cobalt
(d) potassium

27. Which of the following set of compounds have the same molecular formula?

(a) Butane and isobutene
(b) Cyclohexane and 1-hexene
(c) Propanal and propanone
(d) All the three.

28. An example of homologous organs is

(a) Our arm and dog's forelegs
(b) Our teeth and elephants trucks
(c) Potato and runners of grass
(d) All of the above

29. Q. 2. The most abundant metal in earth's crust is:

(a) (a) Cu
(b) (b) Al
(c) (c) O_2
(d) (d) Fe

30. Theinternal (cellular) energy reserve in autotrophs is Glycogen

(a) glycogen **(b)** Protein
(c) Starch **(d)** Fatty acids.

31. In which of the following compounds, -OH is the functional group ?

(a) Butanone **(b)** Butanol
(c) Butanoic acid **(d)** Butanal

32. The free electrons of a metal are free to

(a) move on the surface only **(b)** are free to escape through the surface
(c) are free to fall into the nuclei **(d)** are free to move anywhere in the metal

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34. The blood leaving the tissues becomes richer in

(a) Carbon dioxide **(b)** Water
(c) Haemoglobin **(d)** Oxygen.

35. If water contains more H+ ions than OH- ions, then the water is

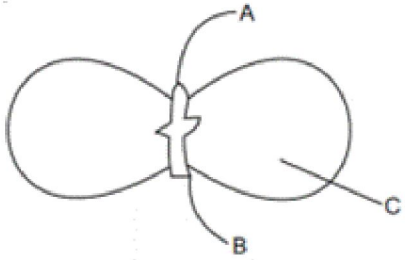
(a) Neutral **(b)** acidic
(c) Basic **(d)** None of these

36. The magnetic field lines due to a straight wire carrying a current are

(a) Straight **(b)** circular
(c) parabolic **(d)** elliptical

37. In the figure, the parts marked A, B and C are

Sequentially



[2013, 2014]

(a) Plumule, Cotyledon and Radicle **(b)** Radicle, Cotyledon and Plumule
(c) Radicle, Plumule and Cotyledon **(d)** Plumule, Radicle and Cotyledon

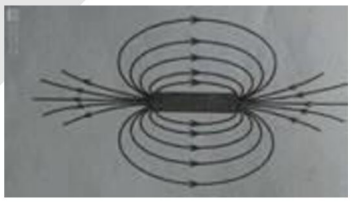
38. Posture and balance of the body is controlled by

(a) Cerebrum **(b)** Cerebellum
(c) Medulla **(d)** Pons.

39. The ultimate source of energy stored in fossil fuels is

(a) moon **(b)** earth
(c) sun **(d)** sea

40. Observe the following figure. We can understand that



(a) There is a uniform magnetic field around the solenoid **(b)** The magnetic field is same at all points inside the solenoid
(c) Solenoid is kept in a strong magnetic field **(d)** Solenoid is experiencing mechanical force

SOCIAL STUDIES

1. The British historians called the revolt of 1857 as

(a) First war of independence **(b)** Sepoy mutiny
(c) Iworld war **(d)** II world war

2. _____ is know as the Iron Man of India.

(a) Bhagath Singh **(b) Chandrashekar Azad**
(c) Abdul Kalam Azad **(d) Sardar Vallabhabai Patel**

3. Black soil is covered an area of

(a) 5.46 lakh **(b)** 15 lakh
(c) 2.85 lakh **(d)** 5.2 lakh

4. 6- 14 years children should get free and compulsory education and the article .

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

5. The word Banco is derived from

(a) Italian **(b)** French
(c) Greek **(d)** Latin

6. The director of Balaji Tele films

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

7. The first Anglo Mysore war was fought between the british and

(a) Nizam of Hyderabad **(b)** Marathas
(c) Hyder ali **(d)** Tippu

8. The Eastern slopes of Western Ghats do not receive rain as much as western slopes because they

(a) Lie in the southern part **(b)** Lie in rain shadow area
(c) Receive more rainfall **(d)** Have thick forests

9. The central Government created Andhra Pradesha in 1952 when

(a) Potti sriramulu fast until death **(b)** Nizam imported weapons to fight
(c) Sardarpatel launched police action **(d)** Rajakarssuppressed the accessionists

10. Jharkhand MukthiMorcha is an example of

(a) Tribal Displacement Movement **(b)** People Launching movement to protect tress
(c) People's agitation against dam construction **(d)** People agitation against refineries

11. The U.N.O as the World organization came into existence on

(a) 24th October 1946 **(b)** 26th October 1945
(c) 25th October 1946 **(d)** 24th October 1945

12. 15th August 1947, when the entire country was celebrating independence Gandhiji was at

(a) Lahore **(b)** Delhi
(c) Naukli **(d)** Amritsar

13. The nagarjuna sagar project constructed across the river

(a) Krishna **(b) Tunga**
(c) Kaveri **(d) sharavathi**

14. The highest peak in India is

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

15. Doctrain of lapse was introduced by _____

(a) Dalhouse **(b)** Wellesly
(c) Canning **(d)** Warren hasting

16. The first Anglo Mysore war was ended by the treaty of

(a) Madras **(b)** Mangalore
(c) Srirangapatana **(d)** Salbai

17. Which one of the following forests refer to the stilt like roots?

(a) Evergreen forests **(b)** Monsoon Forests
(c) Mangroove forest **(d)** Mountain Forests

18. HDI is constructed by

(a) UNO **(b)** FAO
(c) UNDP **(d)** UNESCO

19. Indians could develop modernity secularism, democratic attitudes and rationality along with Nationalistic ideals as a result of

(a) Military system **(b)** Land tax policies
(c) The Judicial system **(d)** Modern education System

20. The treaty ended the 2nd Anglo Maratha war.

(a) Salbai treaty **(b)** Bassain treaty
(c) Madras treaty **(d)** Mangalore treaty

21. The law prohibiting female feticide was implemented in the year

(a) 2004 **(b) 1994**
(c) 2014 **(d) 1904**

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

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

23. Ruyly of Jaisalmar in India is the

(a) Wettest Place **(b)** Hottest Place
(c) Coldest place **(d)** Driest place

24. The first women president of Indian National Congress was

(a) Sarojini Naidu **(b)** Annie Besant
(c) Aruna Asaf Ali **(d)** Kamaladevi chattopadhyaya

25. I am an Organisation of the UNO. I sell greeting cards to generate funds to fund my activities. I am

(a) UNESCO **(b)** IMF
(c) FAO **(d)** UNICEF

26. The Viceroy who implemented the Bengal division was ____

(a) Lord Cornwallis **(b) Dalhousie**
(c) Lord Curzon **(d) Robert Clive**

27. The article accorded special status to Karnataka is

(a) 371A **(b)** 371B
(c) 371J **(d)** 371H

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

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

29. According to karl merx division of labour leads to

(a) Skilled workers **(b)** Less skilled workers
(c) More skilled workers **(d)** Only workers

30. 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

31. A fuel substance of plant origin is ____

32. The communist party started in china in the year _____.

33. The term of the office of international judges is _____ years.

34. Pondicherry became Union territory of India in _____.

35. _____was the prime minister of Italy from 1922 to 1943 .

36. India's first president was _____.

37. Coastal erosion is mostly caused by _____ action.

38. The newspaper Bombay Samachar was started in ____

39. Child marriage prevention act was implemented in the year _____

40. Bauxite is the main raw material for _____ industry.