

Danish Sir's Practice Papers
SSLC MCQ PRACTICE PAPER (July – 2021 Exam)
Sub: Maths, Science, Social (40 Marks Each)
Code no. 2106-29



Time: 2 Hour

Total Marks: 120

MATHEMATICS

2. If the points A(x, 2), B(-3, -4) and C(7, -5) are collinear, then the value of x is [2014]

- (a) -63 (b) 63
(c) 60 (d) -60

3. If the area of a circle is equal to sum of the areas of two circles of diameters 10 cm and 24 cm, then the diameter of the larger circle (in cm) is [2012]

- (a) 34 (b) 26
(c) 17 (d) 14

4. 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

5. 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

6. 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) $\frac{9}{89}$

7. 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) $\frac{11}{30}$

8. If $\sin \theta = \frac{3}{5}$ and $\theta = \frac{4}{5}$ find the value of $\sin^2 \theta + \cos^2 \theta$

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

9. Sec A is same as

- (a) Sin A (b) $\frac{1}{\cos A}$
(c) Cos A (d) $\frac{1}{\sin A}$

10. According to Cartesian system, the point of intersection of two axes is called

- (a) x-axis (b) co-ordinates co
(c) Origin (d) y-axis



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11. 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,

12. A straight line which passes through two points on a circle is

- (a) A chord (b) A secant
(c) A tangent (d) The radius

13. If the common difference of an A.P. is -6 then $a_{16} - a_{12}$ is

- (a) 24 (b) 42
(c) 30 (d) -24

14. The distance of the point p(3,4) from the x-axis is

- (a) 3 unit (b) 4 unit
(c) 7 unit (d) 1 unit

15. In the Equation $ax^2+bx+c=0$, if $b^2-4ac>0$ then the roots of the equation are

- (a) Imaginary (b) Real and equal
(c) real and unequal (d) None of the above

16. A cone is mounted on a hemisphere of radius 'r' cm and height 'h' cm, then the volume of solid is

- (a) $[4/3\pi r^3+1/3\pi r^2h] \text{ cm}^3$ (b) $[1/3\pi r^3+\pi r^2h] \text{ cm}^3$
(c) $[4/3\pi r^3+2/3\pi r^2h] \text{ cm}^3$ (d) $[2/3\pi r^3+1/3\pi r^2h] \text{ cm}^3$

17. $X+2y-4=0$ and $2x+4y-12=0$ then the lines are

- (a) Coincide (b) Parallel
(c) Intersect (d) None of these

18. 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

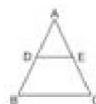
19. In a progression, if $T_n = 2n^2+1$, then S_2 is

- (a) 3 (b) 9
(c) 12 (d) 11

20. Which of the following is false in A.P.

- (a) $T_{n+1} = T_n + d$ (b) $S_n - S_{n-1} = T_n$
(c) $A = \frac{a+b}{2}$ (d) $d = \frac{T_n + a}{n-1}$

21. In the figure $AB=12\text{cms}$, $AD=7\text{cms}$, $AC=18\text{cms}$ and $DE \parallel BC$ then the length of AE is



- (a) 10.5cms (b) 7.5cms
(c) 11.5cms (d) 12.5cms

22. The areas of similar triangles are proportional to

- (a) Corresponding sides (b) Square root of corresponding sides
(c) Square of corresponding sides (d) Cubes root of corresponding sides

23. Perimeter of a square is 40cm then the length of diagonal is

- (a) 100cms (b) $10\sqrt{2}$ Cms
(c) $5\sqrt{2}$ Cms (d) 5cms

24. 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

25. The pair of linear equations $8x - 5y = 7$ and $5x - 8y = -7$ have

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

26. 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

27. 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) $3x=2y$

28. 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 $\frac{3}{2}$



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29. The graph of $y = x^2$ and $y = 6 - x$ gives the roots of the equation

- (a) $x^2 - 6 - x = 0$ (b) $x^2 - x + 6 = 0$
 (c) $x^2 + x - 6 = 0$ (d) $x^2 - 2x - 6 = 0$

30. The square of a number is added to the three times of the number, the sum is 28. This statement can be represented as

- (a) $x^2 - 3x - 28 = 0$ (b) $x^2 - 3x + 28 = 0$
 (c) $x^2 + 3x = 28$ (d) $x^2 + 3x + 28 = 0$

31. An equation that can be expressed in the form of a $x^2 + c = 0$ where 'a' and 'c' are real numbers is called.

- (a) **Adfectod** quadratic equation (b) **Pure** quadratic equation
 (c) **Linear** equation (d) **Bio-** quadratic equation

32. $(1 + \tan \theta + \sec \theta)(1 + \cot \theta - \operatorname{cosec} \theta) =$

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

33. $(\sec A + \tan A)(1 - \sin A) =$

- (a) **Sec A** (b) **Sin A**
 (c) **Cosec A** (d) **Cos A**

34. $\frac{1 + \tan^2 A}{1 + \cot^2 A} =$

- (a) $\sec^2 A$ (b) -1
 (c) $\cot^2 A$ (d) $\tan^2 A$

35. The measure of angle of elevation of top of tower $75\sqrt{3}$ high from a point at a distance of 75 m from foot of tower in a horizontal plane is

- (a) 30° (b) 60°
 (c) 90° (d) 45°

36. If the altitude of the sun is 60° , 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

37. The length of the string of a kite flying at 100 mts above the ground with the elevation of 60° is :

- (a) 100 m (b) $100\sqrt{2}$ m
 (c) $200/\sqrt{3}$ m (d) 200 m

38. The angle of depression from the top of a tower 12 m high, at a point on the ground is 30° . The distance of the point from the top of the tower is :

- (a) 12 m (b) 6 m
 (c) $12\sqrt{3}$ m (d) 24 m

39. The times, in seconds, taken by 150 athletes to run a 110 m hurdle race are

Class frequency	13.8 - 14	14.2 - 14.4	14.4 - 14.6	14.6 - 14.8	14.8 - 15
	2	4	5	71	48
				20	

- (a) 11 (b) 71
 (c) 82 (d) 130

40. To draw a pair of tangents to a circle which are inclined to each other at an angle of 60° , it is required to draw tangents at end points of those two radii of the circle. What should be the angle between them ?

SCIENCE

1. Reactive metals are good reducing agents. The most suitable example related to this is

- (a) $\text{PbO} + \text{C} \longrightarrow \text{Pb} + \text{CO}$ (b) $3\text{MnO}_2 + 4\text{Al} \longrightarrow 2\text{Al}_2\text{O}_3 + 3\text{Mn}$
 (c) $\text{ZnO} + \text{C} \longrightarrow \text{Zn} + \text{CO}$ (d) $\text{CuO} + \text{H}_2 \longrightarrow \text{Cu} + \text{H}_2\text{O}$

2. 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

3. Which of the following pairs of two vegetables

represent the correct homologous structures?

- (a) Sweet potato and potato (b) Sweet potato and tomato
 (c) Carrot and potato (d) Radish and carrot

4. An aqueous solution turns red litmus solution blue. Excess addition of which of the following solutions would reverse the change

- (a) Baking powder (b) Lime
(c) Ammonium hydroxide solution (d) Hydrochloric acid

5. Water shed management

- (a) increases droughts and floods (b) increases the production and income of the watershed community
(c) decreases the biodiversity of the downstream reservoirs (d) increases deforestation.

6. When the speed of the coil of generator is increased

- (a) The induced emf decreases but frequency increases (b) The induced emf increases but frequency decreased
(c) The induced emf increases and the frequency increases (d) The induced emf decreases and the frequency decreases

7. Wings of an insect and a bird are example of which organs?

- (a) Homologous (b) Analogous
(c) Vestigial (d) analytic

8. The splitting up of white light into seven colours on passing through a glass prism is called

- (a) Refraction (b) Deflection
(c) Dispersion (d) scattering

9. A prism splits up a beam of white light into seven colours because -----Is different colour

- (a) Amplitude (b) Speed
(c) Energy (d) none

10. Which of the following phenomena occur, when a small amount of acid is added to water?

- (i) Ionisation
(ii) Neutralisation
(iii) Dilution
(iv) Salt formation

- (a) a) (i) and (ii) (b) b) (i) and (iii)
(c) c) (ii) and (iii) (d) d) (ii) and (iv)

11. 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

12. Iron nails were dipped in an aqueous solution of

copper sulphate. After about 30 minutes, it was

observed that the colour of the solution changed

from

- (a) Colorless to light green (b) Blue to light green
(c) Blue to colourless (d) Green to blue

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

- (a) Amoeba, Hydra, spirogyra (b) Leishmania, Ameoba, yeast
(c) Ameoba, Plasmodium, Planaria (d) Plasmodium, Ameoba, leishmania

14. The inner lining of stomach is protected by one of the following from hydrochloric acid. Choose the correct one

- (a) Pepsin (b) Mucus
(c) Salivary amylase (d) Bile.



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15. Which of the following statements does not apply to elements belonging to the same period in the periodic table?
- (a) The number of valence electrons increases on moving from left to right. (b) The atomic size increases from left to right.
- (c) The atomic size goes on decreasing from left to right. (d) The metallic character of elements decreases from left to right.
16. Which of the following characters can be acquired but not inherited?
- (a) body weight (b) body colour
(c) eye colour (d) all of these.
17. Which of the following is the correct sequence of events of sexual reproduction in flowers?
- (a) Pollination, fertilization, seedling, embryo. (b) Seedling, embryo, fertilization, pollination.
- (c) Pollination, fertilization, embryo, seedling. (d) Embryo, seedling, pollination, fertilization.
18. Hydrogen gas is not liberated when a metal reacts with concentrated nitric acid because nitric acid
- (a) Does not contain hydrogen atoms (b) Oxidizes itself
- (c) Oxidizes hydrogen to form water (d) Is a strong reducing agent and gains hydrogen
19. Coliform is a group of
- (a) bacteria (b) wind plants
(c) wild animals (d) diseases
20. The pH value of mouth is
- (a) 5.0 (b) 5.5
(c) 5.3 (d) 5.1
21. Spinal cord originates from
- (a) Cerebrum (b) Medulla
(c) Pons (d) Cerebellum
22. The number of pair(s) of sex chromosomes in a human diploid cell is
- (a) one (b) two
(c) three (d) four.
23. 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.
24. According to Mendeleev's Periodic law, the elements were arranged in the periodic table in the order of
- (a) Increasing atomic number (b) Decreasing atomic number
- (c) Increasing atomic masses (d) Decreasing atomic masses
25. An example of an abiotic component is
- (a) Plants (b) soil
(c) microorganisms (d) animals
26. Which type of lens is needed to rectify the problem of myopia?
- (a) Biconvex lens (b) biconcave lens
(c) Concave lens (d) Plano-convex lens
27. If one hydrogen atom of propane is replaced by a ketone group, then the molecular formula of the compound obtained is
- (a) C_4H_8O (b) C_3H_8O
(c) C_3H_6O (d) $C_4H_{10}O$
28. Which of the following will give displacement reactions?
- (a) NaCl solution and copper metal (b) $MgCl_2$ solution and aluminium metal
- (c) $FeSO_4$ solution and silver metal (d) $AgNO_3$ solution and copper metal.
29. The colours of aqueous solutions of $CuSO_4$
- 4
- and
- $FeSO_4$
- 4
- as observed in the laboratory are:
- (a) Pale green and light blue respectively (b) Light blue and dark green respectively
- (c) Dark blue and dark green respectively (d) Dark blue and pale green respectively



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30. 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

31. The functional group present in ethanol is

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

32. 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

33. Advanced sunrise and delayed sunset are explained on the basis of

- (a) Dispersion of light (b) Scattering of light
(c) White colour of clouds (d) Atmospheric refraction

34. Which gas is harnessed from bio-mass?

- (a) LPG (b) CNG
(c) ethane (d) methane

35. What happens when a solution of an acid is mixed with a solution of a base in a test tube?

- a) The temperature of the solution increases
(b) The temperature of the solution decreases (c) The temperature of the solution remains same (d) Salt formation takes place

- (a) (a) only (b) (a) & (c)
(c) (b) and (c) (d) (a) and (d)

36. The most important safety method used for protecting home appliances from short circuiting or overloading is

- (a) Earthing (b) Use of fuse
(c) Use of sterilizer (d) Use of electric meter

37. An element common to all acids is

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

38. In which of the following chemical equations, the abbreviations represent the correct states of the reactions and products involved at reaction temperature?

- (a) $2\text{H}_2(\text{l}) + \text{O}_2(\text{l}) \ggg 2\text{H}_2\text{O}(\text{g})$ (b) $2\text{H}_2 + \text{O}_2 \gggg 2\text{H}_2\text{O}(\text{g})$
(c) $2\text{H}_2(\text{g}) + \text{O}(\text{g}) \ggg 2\text{H}_2\text{O}(\text{l})$ (d) $2\text{H}_2 + \text{O}_2 \ggg 2\text{H}_2\text{O}(\text{l})$

39. The non renewable form of energy among these is

- (a) Solar energy (b) Wind energy
(c) Nuclear energy (d) Ocean thermal energy

40. Which of the following endocrine glands is unpaired?

- (a) Adrenal (b) Testes
(c) Pituitary (d) Ovary

SOCIAL STUDIES

1. The central Government created Andhra Pradesh in 1952 when

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

2. 'Glasnost and Perestroika' are the names of the

- (a) Communist parties of the USSR (b) Socialist Movements of the USSR
(c) Reformations of the USSR (d) Political policies of the USSR

3. The central bank of India is

- (a) SBI (b) SBM
(c) ICICI (d) RBI

4. The founder of Indian national congress is ____

- (a) Mahatma Gandhi (b) A.O.Hume
(c) Balagangadhar Tilak (d) Gopalakrishna Gokhale

5. _____ is known as the Iron Man of India.

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

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

- (a) Lie in southern part (b) Lie in rain shadow region
(c) Receive more snowfall (d) Have thick forests



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7. The summer rainfall in Karnataka is called as
 (a) Kalabaisakhi (b) Mango showers
 (c) Coffee blossoms (d) Andhis
8. The major function of the consumer council is
 (a) Producing goods and services at lower price
 (b) Ensuring quality goods and services
 (c) Providing all the goods and services at do or step
 (d) Distributing through public distribution system
9. Rice crops requires annual rainfall of
 (a) 100-200cm (b) 10-50cm
 (c) 60-70cm (d) 80-90 cm
10. The highest peak in India is
 (a) Anamudi (b) K²
 (c) Guru shikhar (d) Arnakonda
11. According to census of 2011, the poverty rate of India is
 (a) 21.9% (b) 22%
 (c) 29% (d) 50%
12. 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
13. 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
14. The kosi project is constructed across the river
 (a) mahanadi (b) sutlej
 (c) Rihand (d) kosi
15. An assembly of the following upholds struggle for human rights?
 (a) Mob (b) riot
 (c) propaganda (d) Public opinion
16. According to karl marx division of labour leads to
 (a) Skilled workers (b) Less skilled workers
 (c) More skilled workers (d) Only workers
17. The type of vegetation found in the desert forests is
 (a) Tall grass (b) Thorny shrubs
 (c) Trees with conical flowers (d) Trees with wide leaves
18. Which one of the following forests refer to the stilt like roots?
 (a) Evergreen forests (b) Monsoon Forests
 (c) Mangrove forest (d) Mountain Forests
19. The chairman of Wipro Technologies .
 (a) Azim Premji (b) Ekta Kapoor
 (c) Varghese kurein (d) Narayan Murthy
20. The First Carnatic War was fought between
 (a) Nawab Anwaruddin and the English (b) The French and the English
 (c) Duplex and the Nizam of Hyderabad (d) The English and the Nizam of Hyderabad
21. The value of the total production of goods and service of a country during a year is
 (a) State Income (b) National Income
 (c) State and National Income (d) Per capita Income
22. Headquarters of food and Agriculture Organisation is at
 (a) Rome (b) New Delhi
 (c) New york (d) Geneva
23. Red soil is covered in an area of
 (a) 5.2 lakh (b) 5.46 lakh
 (c) 15 lakh (d) 2.85 lakh
24. Halgali rebels were basically
 (a) Farmers (b) Carpenters
 (c) Bedas (d) Black smiths
25. The rihand dam is constructed across the river
 (a) kosi (b) mahanadi
 (c) rihand (d) Damodar
26. Nelson Mandela was called African Gandhi because
 (a) He fought against caste system (b) He fought for the freedom to south Africa
 (c) He fought against corruption (d) He fought against racial discrimination



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27. The actual burden that will be imposed on the government treasury is indicated by
- (a) Revenue deficit (b) Fiscal deficit
(c) Primary deficit (d) Tax deficit
28. Which article upholds the social justice and people welfare of the state government .
- (a) Article39 (b) Article29
(c) Article30 (d) Article17
29. The subsidiary Alliance was introduced by
- (a) Lord dalhousie (b) Lord canning
(c) Lord wellesley (d) Lord William bentinck
30. Jindal Vijayangar Strell Ltd. Is located in ____ state.
31. The second world war started in _____.
32. Women movement means _____
33. World trade Organization was founded on _____.
34. The first railway line in India was laid between ____ and _____
35. In India _____ occur very after in hilly states.
36. A fuel substance of plant origin is _____
37. The law protecting children from sexual crimes was implemented in the year _____
38. The SAARC was founded in the year _____.
39. The British government last governor general was _____.
40. _____ started Self importance movements in Tamil Nadu .



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