

Danish Sir's Practice Papers

SSLC MCQ PRACTICE PAPER (July – 2021 Exam)

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

Code no. 2106-33



Time: 2 Hour

Total Marks: 120

MATHEMATICS

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

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

3. 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

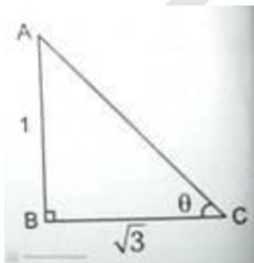
4. Find the value of $\sin 30^\circ + \cos 60^\circ$

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

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

- (a) 7 Units (b) 25 Units
 (c) 5 Units (d) 6 Units

6. In the figure, the angle of elevation θ is

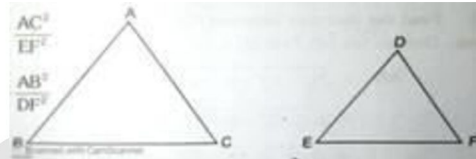


- (a) 30° (b) 45°
 (c) 90° (d) 60°

7. Sec A is same as

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

8. In this figure $\triangle ABC \sim \triangle DEF$. Then which one of the following ratios is correct?



- (a) $\frac{AC^2}{EF^2}$ (b) $\frac{\Delta ABC}{\Delta DEF}$
 (c) $\frac{AB^2}{EF^2}$ (d) $\frac{AC^2}{EF^2}$
 (e) $\frac{\Delta ABC}{\Delta DEF}$ (f) $\frac{\Delta ABC}{\Delta DEF}$
 (g) $\frac{BC^2}{EF^2}$ (h) $\frac{AB^2}{DF^2}$

9. The distance between origin and the point P(x₁, y₁) is

- (a) $\sqrt{x_1^2 + y_1^2}$ (b) $\sqrt{x_1^2 - y_1^2}$
 (c) $\sqrt{x_1^2 / y_1^2}$ (d) $\sqrt{x_1^2 \div y_1^2}$

10. 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,

11. The value of a $\cos 48^\circ - \sin 42^\circ$ is

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



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12. 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) $\frac{a_1}{a_2} \neq \frac{b_1}{b_2} = \frac{c_1}{c_2}$

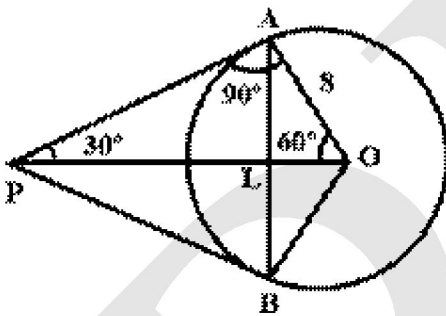
13. The empirical relationship between the three measures of central tendency is,

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

14. The pair of equations $2x+y=5, 3x+2y=8$ has

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

15. In the adjoining figure if $\angle A = 90^\circ$, then $\angle AOP$ is



- (a) 90° (b) 180°
 (c) 60° (d) 30°

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

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

17. 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

18. 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

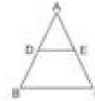
19. Sum of first 'a' terms of an AP is "n", then the common difference is

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

20. 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

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. 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

23. 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) $AB+BC=AC$

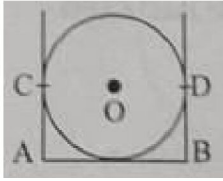
24. If $x=a, y=b$ is the solution of the equations $x-y = 2$ and $x + y=4$, then the values of a and b are respectively.

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

25. 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

26. In the figure AB, AC and BD are the tangents as shown in the figure, If AB= 'a' cms BD='b'cms then AC =



- (a) 'a' cms (b) 'b' cms
 (c) (a-b) cms (d) (a+b) cms
27. 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)
28. If $A = 2\pi r^2$, then the value of r is
- (a) $\frac{\pm\sqrt{2\pi}}{A}$ (b) $\frac{\pm\sqrt{A}}{2\pi}$
 (c) $\frac{\pm\sqrt{2A}}{\pi}$ (d) $\frac{\pm\sqrt{\pi}}{2A}$
29. If sum of the roots of the equation is zero then the equation is
- (a) Pure quadratic equation (b) Adfectod quadratic equation
 (c) Linear equation (d) None of the above
30. If $b = 0$ in $ax^2 + bx + c = 0$ then the resultant equation is
- (a) Pure quadratic equation (b) Adfectod quadratic equation
 (c) Linear equation (d) Simple equation
31. If $\Delta = -4$ of the given equation the roots of the equation should be
- (a) Real and rational (b) Roots are imaginary
 (c) Real and irrational (d) Roots are equal
32. The roots of the equation $x^2 - 2x - 3 = 0$ are
- (a) (1, or 3) (b) (-1, or -3)
 (c) (3 or 1) (d) (-1, or 3)
33. $9\sec^2 A - 9\tan^2 A =$
- (a) 1 (b) 9
 (c) 8 (d) 0

34. The ratio of the length of a pole and its shadows is $1 : \sqrt{3}$. The angle of elevation of the sun is :
- (a) 90° (b) 60°
 (c) 30° (d) 45°
35. If the angle between two radii of a circle is 140° , then the angle between the tangents at the ends of the radii is :
- (a) 90° (b) 50°
 (c) 70° (d) 60°
36. When the angle of elevation of sun is 30° 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) $300\sqrt{3} m$
37. 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° (b) 60°
 (c) 45° (d) 90°
38. For the following distribution.

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

- The modal class is :
- (a) 10-20 (b) 20-30
 (c) 30-40 (d) 50-60
39. 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
40. 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

SCIENCE



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1. In an experiment to study the properties of ethanoic acid, a student takes about 3 mL of ethanoic acid in a dry test tube. He adds an equal amount of distilled water to it and shake the test tube well. After some time he is likely to observe that

- (a) a colloid is formed in the test tube (b) the ethanoic acid dissolves readily in water
 (c) the solution becomes light orange (d) water floats over the surface of ethanoic acid

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.
 It has 18 vertical columns known as Group s. (d) It has 7 horizontal rows known as Groups.

3. The plant part which exhibits negative geotropism is

- (a) Root (b) Stem
 (c) Branch (d) Leaves

4. An element common to all acids is

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

5. Which of the following is not a property of magnetic field lines?

- (a) Magnetic field lines are denser near poles (b) Magnetic field lines are closed loops
 (c) Magnetic field lines intersect each other

6. Which one of the following is renewable resource?

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

7. 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

8. Observe the following table

Joule i) potential difference

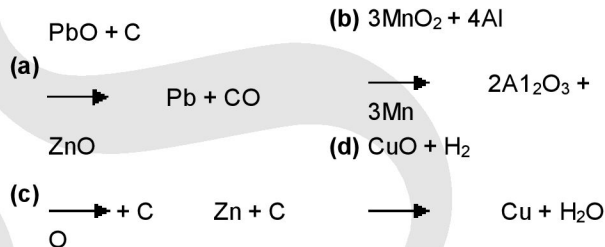
Coulomb ii) work done

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

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



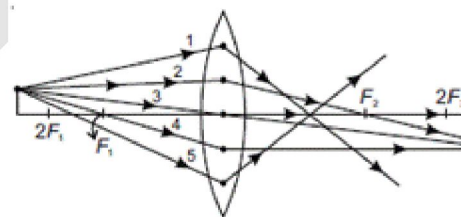
10. Out of the five incident rays shown in the figure

find the three rays which are obeying the laws

of refraction and may be used for locating the

position of the image formed by a convex lens:

[2013, 2014]



- (a) 1, 2 and 3 (b) 2, 3 and 4
 (c) 3, 4 and 5 (d) 1, 2 and 4

11. The following gas is released when metals react with an acid

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



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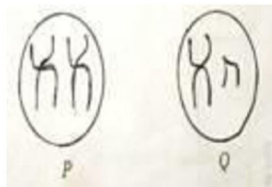
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12. Diagrams P and Q given below represent the gametes of human beings:



Among these, the sex of a child is determined by

- (a) Paired chromosomes of Q gamete
(b) Large chromosomes of P gamete
(c) Any one of the chromosomes of Q gamete
(d) Paired chromosomes of P gamete

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. A metal M is in the first group of the periodic table. What will be the formula of its oxide?

- (a) MO
(b) M₂O
(c) M₂O₂
(d) MO₂

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 distant 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. By which action metal is obtained from metal oxide?

- (a) Calcination
(b) Reduction
(c) Roasting
(d) Oxidation

17. The PH value of mouth is

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

18. Amritha devi Bishnoi sacrificed her life to protect the

- (a) Palm trees
(b) Khejri trees
(c) Teak wood trees
(d) Sal trees

19. Alkalis are

- (a) Acids, which are soluble in water
(b) Salts, which are soluble in water
(c) Bases, which are soluble in water
(d) All of these

20. 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.

21. A cross between two pea plants which differ in one character is called

- (a) Monohybrid cross
(b) Dihybrid cross
(c) Mixed hybrid cross
(d) All the above

22. Magnification produced by a mirror is + 1.5. The mirror is

- (a) concave
(b) may be concave or convex
(c) convex
(d) none

23. Which one of the following elements would lose an electron easily?

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

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. Hydrogen gas is not liberated when a metal react 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 gain hydrogen



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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. The least distance of distinct vision for a young adult with normal vision is about
- (a) 25cm (b) 2.5cm
(c) .25cm (d) 2.5m
28. An example of homologous organs is
- (a) Our arm and dog's forelegs (b) Our teeth and elephants' tusks
(c) Potato and runners of grass (d) All of the above
29. The process in which carbonate ore is converted to oxide in the presence of limited air and high temperature
- (a) Roasting (b) Electrolytic refining
(c) Calcination (d) Electroplating
30. Nutrients are translocated in plants through -
- (a) Xylem tracheids (b) Phloem sieve tubes
(c) Xylem vessels (d) Phloem companion cells.
31. Conversion of unsaturated hydrocarbons into saturated hydrocarbons by the addition of hydrogen in presence of nickel catalyst is called which type of reaction?
- (a) Substitution reaction (b) Oxidation reaction
(c) Addition reaction (d) Esterification
32. Mathematical expression of Ohm's law
- (a) $P = VI$ (b) $W = Qt$
(c) $H = I^2RT$ (d) $V = IR$
33. The hormone which increases the fertility in males is called
- (a) Estrogen (b) Testosterone
(c) Insulin (d) Progesterone
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. An example of abiotic component is

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

37. A student was asked to observe and identify the various parts of an embryo of a red kidney bean seed. He identified the parts and listed them as under :

- I. Tegmen
II. Testa
III. Cotyledon
IV. Radicle
V. Plumule [2015]

The correctly identified parts among these are :

- (a) I, II and III (b) II, III and IV
(c) III, IV and V (d) I, III, IV and V

38. Which of the following is not a plant hormone

- (a) Auxin (b) Gibberins
(c) Thyroxine (d) Cytokinins

39. A solar water heater cannot be used to get hot water on

- (a) a sunny day (b) a cloudy day
(c) a hot day (d) a windy day

40. 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.

SOCIAL STUDIES

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

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



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2. The women and child development department started to provide
- (a) Shelter (b) Health
(c) Education (d) Food
3. Scrub forests and grassland are found in annual rainfall is .
- (a) 10-50cm (b) 100-200cm
(c) 60-100cm (d) 200-250cm
4. The labour achieves social control through class, status and stratification is
- (a) Child Labour (b) Economic Labour
(c) Social Labour (d) Division of Labour
5. A person has bought a car of worth Rs.15 lakhs is now facing some problems in it, but the car company is not responding to him. To which agency can the person complain?
- (a) District Consumer Forum (b) The State Consumer Commission
(c) The National Consumer Commission (d) Inter-State Consumer Forum
6. Quantitative Credit control Measure the following is the
- (a) Change in lending margins (b) Bank rate policy
(c) Moral suasion (d) Direct action
7. The Indian textiles could not be sold in England due to
- (a) Heavy tariffs (b) Lack of transportation
(c) Heavy export (d) Poor quality
8. India belongs to
- (a) Underdeveloped country (b) Developed country
(c) Developing country (d) Backward country
9. India and china signed Panchaheela principles in
- (a) 1962 (b) 1971
(c) 1948 (d) 1954
10. 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
11. 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
12. Jawahar Lal Nehru outlined Indian foreign policy on
- (a) September 7, 1946 (b) September 7, 1948
(c) December 25, 1946 (d) December 25, 1948
13. The largest producer of rice in India is
- (a) Andhra Pradesh (b) Punjab
(c) West Bengal (d) Karnataka
14. The summer rainfall in Kerala is called as
- (a) Kalabaisakhi (b) Mango showers
(c) Coffee blossoms (d) Andhis
15. The word wagh means
- (a) Lion (b) Tiger
(c) Brave (d) Courage
16. The famous declaration 'back to Vedas ' is given by
- (a) Dayananda saraswathi (b) Raja ram mohan roy
(c) M. G.Ranade (d) Athmarama panduranga
17. The upper Krishna project is constructed across the river
- (a) kaveri (b) Krishna
(c) kosi (d) Mahanadi
18. According to 2011 Census women literacy rate is _____.
- (a) 65.46% (b) 82.14%
(c) 75% (d) 74%
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 signed a humiliating Lahore agreement in _____.
- (a) 1818 (b) 1846
(c) 1848 (d) 1857
21. The following government given 50% reservation in local body elections to women
- (a) Andhra pradesh (b) Orissa
(c) Sikkim (d) Karnataka
22. The act that became the cause for JallianWallahBhagh massacre
- (a) Factory act (b) Rowlat act
(c) Press act (d) Arms act

