Danish Sir's Practice Papers

SSLC MCQ PRACTICE PAPER (July – 2021 Exam)

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

Code no. 2106-10

Time: 2 Hour | Total Marks: 120

MATHEMATICS

1. The roots of an equation are +5 and -5.Then the equation is

   (a) Adfected E **(b) Linear equation**
   (c) pure Q.E **(d) Simple Linear equation**

2. If the common difference of an AP is 3, then $a_{20} - a_{15}$ is

   (a) 5 **(b) 3**
   (c) 15 **(d) 20**

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

4. A solid sphere of radius x cm is melted and cast into a shape of a solid cone of radius x cm. Then the height of the cone is :

   (a) 3x cm **(b) x cm**
   (c) 4 x cm **(d) 2 x cm**

5. 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**

6. 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**

7. If the area of a circle is 49 π sq. units then its perimeter is

   (a) 7π units **(b)** 9π units
   (c) 14π units **(d)** 49 πunits

8. The missing term in the following AP is 2,7, ☐ 17.....

   (a) 12 **(b)** 10
   (c) 9 **(d)** 8

9. In figure, QR is a common tangent to the given circles, touching externally at the point T. The tangent at T meets QR at P. If PT = 3.8 cm, then the length of QR (in cm) is [2014]

   (a) 3.8 **(b)** 7.6
   (c) 5.7 **(d) 1.9**

10. 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**

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

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

12. The point of co-ordinates satisfying 2x+y=6 is

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

13. In ΔABC if A_{B^2}- B_{C^2}=A_{C^2}, then the right angled vertex and the hypotenuses are

    (a) <A and AB **(b) <B and AB**
    (c) <C and AB **(d) <DC and AC**

14. The sum of the roots of the equation k^2-9-5k is

(a) 5. **(b)** $\frac{9}{5}$.

(c) $\frac{-9}{5}$. **(d) -5**

15. 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**

16. The pair of linear equations 7**x -3y=4and 14x+4y=5 have**

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

17. 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**

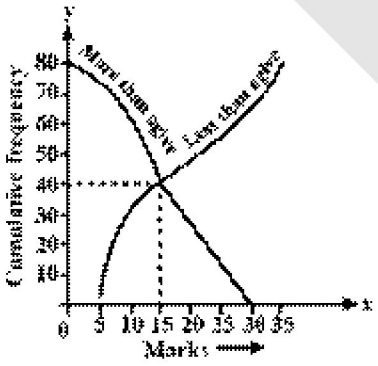
18. If ' m' and ' n' are the roots of the equation of x^2-6x+2=0 then the value of m^2n+mn^2 is

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

19. The nature of roots x^2+5x-6=0 is

(a) Real & distinct **(b) Equal & real**
(c) Non-real **(d) imaginary**

20. In figure 1 the value of the median of the data using the graph of less ttan ogive an more than



(a) 5 **(b) 40**
(c) 80 **(d) 15**

21. If the nth term of an arithmetic progression is $4n^2$-1, then the 8^{th} term is

(a) 32 **(b)** 31
(c) 256 **(d)** 255

22. 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**

23. If The Last Term of an A.P. is 119 and the 8^{th} term from the end is 91,the common difference of the A.P. is

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

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

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

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. 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**

27. 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**

28. If the n-th term of an arithmetic progression a_n =24 - 3n,then its 2^{nd} term is

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

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

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

30. A person continuously place 3 marbles in first box, 5 in second box, 7 in third box etc. The number of marbles that he place in sixteenth box is

(a) 66 **(b)** 35
(c) 13 **(d)** 33

31. 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**

32. 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

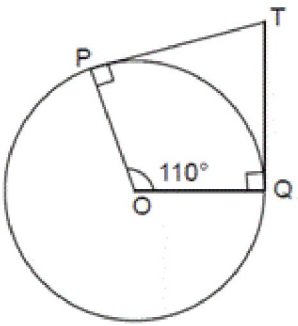
33. of the equation $m^2 + 3m = -k$ is zero then K is equal to

(a) 1 **(b) 2**
(c) 3 **(d) 0**

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

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

35. If TP and TQ are two tangents to a circle with Centre 'O' such that $\angle POQ = 110^0$,then $\angle PTQ$ is equal to _____



(a) 60^0 **(b)** 70^0
(c) 90^0 **(d)** 80^0

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

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

37. For a symmetrical distribution, which is correct

(a) Mean > Mode > Median **(b) Mean < Mode < Median**
(c) Mode = $\frac{Mean + Median}{2}$ **(d) Mean =Mode = Median**

38. Co-ordinates of the midpoint of the line joining the points (2,5) and (8,6) is

(a) (-3,+1) **(b) (3,-1)**
(c) (5,11/2) **(d) (-5,-11/2)**

39. If a pair of linear equations $a_1 x + b_1 y + c_1 = 0$ and $a_2 x + b_2 y x + C2 = 0$ represents coincident lines, then, correct relation among the following is,

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

SCIENCE

1. The major cause of environmental pollution is the use of :

(a) hydrogen as fuel **(b)** biomass energy
(c) ocean energy **(d)** fossil fuels

2. Which of the following units could be used to measure electric charge ?

(a) ampere **(b)** joule
(c) volt **(d)** coulomb

3. 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

4. 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

5. Posture and balance of the body is controlled by

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

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

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

7. If the image formed is always virtual, the mirror can be :

(a) concave or convex **(b)** only convex
(c) concave or plane **(d)** convex or plane

8. Carbon forms a large number of organic compounds due to

(a) catenation **(b)** tendency to form multiple bonds
(c) phenomenon of isomerism **(d)** all the three above

9. The defect of vision in which the eye-leas of a person gets progressively cloudy resulting in blurred vision is called

(a) Myopia **(b) Presbyopia**
(c) Colourblindness **(d) cataract**

10. In an experiment to trace the path of a ray of light through a glass prism for different values of angle of incidence a student would find that the emergent ray : [2013]

(a) Is parallel to the incident ray **(b)** Perpendicular to the incident ray
(c) Is parallel to the refracted ray **(d)** Bends at an angle to the direction of the incident ray

11. **Out of the following pairs of compounds, the unsaturated compounds are**

(a) C_2H_6 and C_4H_6 **(b)** C_6H_{12} and C_5H_{12}
(c) $C4H_6$ and C_6H_{12} **(d)** C_2H_6 and C_4H_{10}

12. Which among the following is a correct sequence of organs in the human female reproductive system?

(a) Ovary-fallopian tube - uterus-cervix-vagina **(b) Ovary-uterus-fallopiantube-cervix-vagina**
(c) Uterus-ovary-fallopiantube-cervix-vagina **(d) Ovary-fallopiantube-cervix-uterus-vagina**

13. **The group of compounds which are in homologous series is,**

(a) CH_4, C_2H_4, C_2H_2 **(b)** CH_4, CH_3OH, HCHO
(c) CH_4, C_2H_6, C_3H_8 **(d)** C_2H_2, C_3H_6, C_4H_{10}

14. Danger signals are red in colour because red colour has

(a) The longest wavelength and is least scattered **(b)** Red the shortest wavelength and is most scattered
(c) The highest frequency **(d)** None of the above

15. The Harmone that controlees the rate of respiration in the human body is

(a) Thyroxin **(b)** Progesterone
(c) adrenaline **(d)** insulin

16. Which of the following is not an example of a biomass energy?

(a) Wood **(b)** Gobar gas
(c) Nuclear gas **(d)** Biomass

17. The blood leaving the tissues becomes richer in

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

18. The work done in moving a unit charge across two points in an electric circuit is a measure of

(a) Current **(b)** potential difference
(c) resistance **(d)** power

19. **Which of these is a plant harmone?**

(a) Insulin **(b) Thyroxin**
(c) Estrogen **(d) cytokinin**

20. A student takes about 4 ml of distilled water in four test tubes marked P, Q, R and S. He then dissolves in each test tube an equal amount of one salt in one test tube, namely sodium sulphate in P, potassium sulphate in Q, calciumsulphate in R and magnesium sulphate in S. After that he adds an equal amount of soap solution in each test tube. On shaking each of these test tubes well, he observes a good amount of lather (foam) in the test tube marked

(a) P and Q **(b)** Q and R
(c) P, Q and S **(d)** P, R and S

21. Significant role of stomata in transportation is to

(a) Create upward pressure **(b)** Absorb carbon-di-oxide
(c) Release oxygen **(d)** Perform transpiration continuously

22. 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.

23. **Urea produced in**

(a) Pancreas
(b) Kidney
(c) Lungs
(d) Skin

24. Solutions A, B, C and D have pH 3,4,6 and 8. The solution with highest acidic strength is

(a) a) A
(b) b)B
(c) c)C
(d) d)D

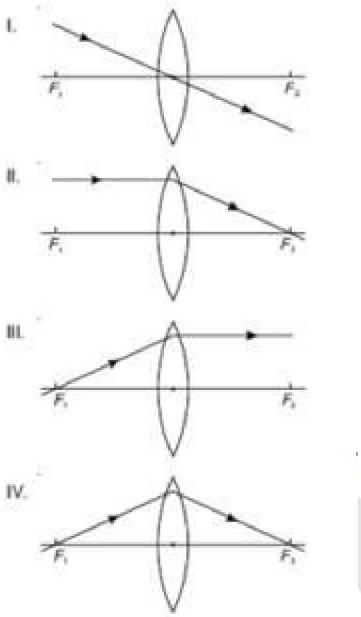
25. The PH value of mouth is

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

26. 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

27. Study the following ray diagrams : [2013]



The diagrams showing the correct path of the ray after passing through the lens are

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

28. The famous movement that was started by women of Advani village in Tehri-Garbawal agains felling of trees

(a) Chipko movement
(b) Appiko movement
(c) Bishnoi movement
(d) Bahuguna movement,

29. The wavelengths corresponding to vialet, yellow and red lights are respectively.

(a) λv<λy<λr
(b) λy<λv<λr
(c) λv>λy>λr
(d) λy<λr<λv

30. 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) $C_4H_{10}O$

31. Myopia is corrected by

(a) Concave lens **(b) Convex lens**
(c) Concave mirror **(d) Convex mirror**

32. 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**

33. 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

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

(a) a) Baking powder **(b)** b) lime
(c) c) Ammonium hydroxide solution **(d)** d) Hydrochloric acid

35. Carbon forms a large number of organic compounds due to

(a) catenation **(b)** tendency to form multiple bonds
(c) phenomenon of isomerism **(d)** all the three above

36. 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.

37. Dolomite is

(a) a) an acid salt **(b)** b) a mixed salt
(c) c) a normal salt **(d)** d) a double salt

38. 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)** $C_4H_{10}O$

39. **Main constituent of a biogas is**

(a) Methane **(b) Butane**
(c) Carbon dioxide **(d) Puuopane**

40. 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.

41. The size of the pupil of the eye is adjusted by

(a) Cornea **(b) ciliary** muscles
(c) Optic nerve **(d) Iris**

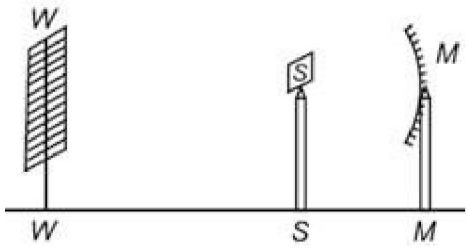
42. If one hydrogen atom of propane is replaced by a ketone group, than the molecular formula of the compound obtained is

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

43. **A response that does not happen in plants due to their growth is**

(a) Bending of shoot towards light **(b) Penetration of roots in deep soil**
(c) Folding of leaves when touched **(d) Climbing tendrils of a creeper**

44. A student obtains a sharp image of the distant window (W) of the school laboratory on the screen (S) using the given concave mirror (M) to determine its focal length. Which of the following distances should he measure to get the focal length of the mirror? [2015]



(a) MW (B) MS **(b) MS**

(C) SW (D) MW – MS

(c) SW **(d) MW-S**

45. Hard water required for an experiment is not available in a school laboratory. However, following salts are available in the laboratory. Select the salts which may be dissolved in water to make it hard for the experimen

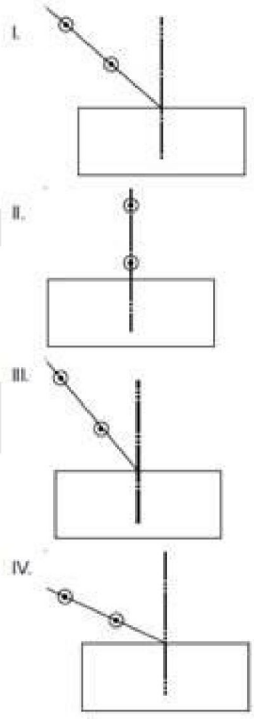
(a) Calcium Sulphate **(b)** Sodium Sulphate

(c) Calcium Chloride **(d)** Potassium Sulphate

Magnesium Chloride

Sodium Hydrogen Carbonate

46. 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**

47. A boy is standing in front of and close to a special mirror. He finds the image of his head bigger than normal, the middle part of his body of the same size, and his legs smaller than normal. The special mirror is made up of three types of mirrors in the following order from top downwards :

(a) aconvex, plane, concave **(b)** plane, convex, concave

(c) concave, plane, convex **(d)** convex, concave, plane

48. Which of the following represents the correct increasing order of unsaturation ?

(a) Alkanes, alkenes, alkynes **(b)** Alkanes, alkynes, alkenes

(c) Alkenes, alkynes, alkanes **(d)** Alkynes, alkanes,alkenest

49. A covalent bond is formed by

(a) Complete transfer of electrons **(b)** one sided sharing of electrons

(c) mutual sharing of electrons **(d)** any of the three above.

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

(a) $PbO + C \longrightarrow Pb + CO$ **(b)** $3MnO_2 + 4Al \longrightarrow 2A1_2O_3 + 3Mn$

(c) ZnO **(d)** $CuO + H_2 \longrightarrow Zn + CO + C$ $\longrightarrow Cu + H_2O$

51. Bacteria present in human intestine

(a) Colliform **(b) Rhzobium**
(c) Azetobacter **(d) clostridium**

SOCIAL STUDIES

1. India's sex ratio in 2011 is

(a) 1000:946 **(b)** 1000:945
(c) 1000:1094 **(d)** 1000:900

2. The conference of Asian countries held in 1955 in.

(a) Delhi **(b)** Bandung
(c) Lahore **(d)** Shimla

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

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

4. 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

5. The right which a person acquires by birth are called

(a) Fundamental rights **(b) Natural rights**
(c) Human rights **(d) Civil rights**

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

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

7. The tropical deciduous forests are found in annual rainfall is .

(a) 10 – 50 cm **(b)** 100-200cm
(c) 10-30cm **(d)** 200-250cm

8. The highest peak in the world is

(a) K^2 **(b)** Mt. Everest
(c) Kachanjunga **(d)** Nandadevi

9. The first enter the subsidiary alliance in India.

(a) Birar **(b)** Poona
(c) Awadh **(d)** Hyderabad

10. Rice crops requires annual rainfall of

(a) 100-200cm **(b)** 10-50cm
(c) 60-70cm **(d)** 80-90 cm

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

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

12. Raja Ram Mohan Roy started a periodical called

(a) Mangaluru samachara **(b)** Samvada kaumudi
(c) Young Bengal **(d)** Young India

13. The mountains which are also called as Himadri

(a) The greater Himalayas **(b)** The lesser Himalayas
(c) Deccan plateau **(d)** Siwaliks

14. The kosi project is constructed across the river

(a) mahanadi **(b)** sutlej
(c) Rihand **(d)** kosi

15. The founder of Appolo hospital

(a) Narayanmurthy **(b)** NareshGoel
(c) Prathap C. Reddy **(d)** DheerubhaiAmbani

16. The premier of china who signed panchasheela Principles was

(a) Sun-Yat-sen **(b)** Chaing Kai-shek
(c) Chou En-Lai **(d)** Mao Tse Tung

17. The dictator of Italy was

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

18. The reason to create 'Separate Electorate college' in 1909 was to

(a) Provide separate representation for Muslims **(b)** Create separate constituency of Europeans
(c) Provide separate representation for Sikhs **(d)** Reserve some seats for Christians

19. An assembly of the following upholds struggle for human rights?

(a) Mob **(b)** riot
(c) propaganda **(d)** Public opinion

20. The queen of England passed a declaration in

(a) 1857 **(b)** 1856
(c) 1856 **(d)** 1858

21. The central bank of India is

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

22. The Viceroy who implemented the Bengal division was ____

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

23. Teleshopping means

(a) Trading from home itself **(b)** Trading at International level
(c) Domestic Trade **(d)** Retail trading

24. According to karl merx division of labour leads to

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

25. Maratha paper was published by _____.

(a) Jawaharlal Nehrru **(b)** Rasbihari Bose
(c) Balagangadhar Tilak **(d)** V.D.Savarkar

26. The third Anglo Mysore war was ended by the treaty of

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

27. At present in India we have nationalized banks in number of

(a) 19 **(b)** 14
(c) 20 **(d)** 21

28. 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

29. The standard of living is measured with the help of

(a) National Income **(b)** Per capita Income
(c) Human development index **(d)** Income indicator

30. Narayanapura dam is constructed across the river

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