Danish Sir's Practice Papers
SSLC MCQ PRACTICE PAPER (July – 2021 Exam)
Sub: Maths, Science, Social (40 Marks Each)
Code no. 2106-23

Time: 2 Hour

Total Marks: 120

MATHEMATICS

1. Which one of the following is correct?

   (a) $AC^2 - AB^2 = BC^2$
   (b) $AB^2 - BC^2 = AC^2$
   (c) $AC^2 + AB^2 = BC^2$
   (d) AB+BC=AC

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

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 ratio in which (4,5) divides the join of (2,3) and (7,8) is

   (a) 7: 2
   (b) -8 : 3
   (c) 3 : 2
   (d) 2 :3

5. 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

6. 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

7. Sec A is same as

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

8. 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
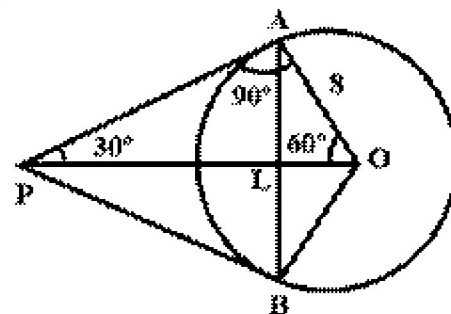
9. Sum of first 'a' terms of an AP is "n", then the common difference is

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

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

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

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

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

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

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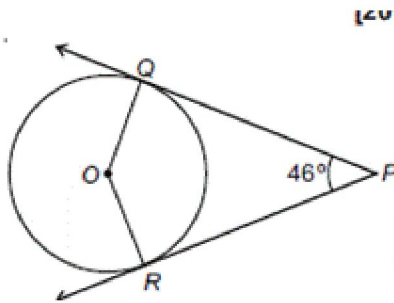   **(c) p = r**　　　　　　　**(d) p=q=r**

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

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

14. In figure, PQ and PR two tangents to a circle

   QPR with centre O. If QOR equals: = 46°,

   [2014

   (a) 67°　　　　　　　　**(b)** 134°
   (c) 44°　　　　　　　　**(d) 46^0**

15. The value of a cos 48 ₒ - sin 42 ₒ is

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

16. 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)** $\frac{\pm\sqrt{\pi}}{2A}$

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

19. 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

20. 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**

21. 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

22. $9sec^2 A -9tan^2 A =$

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

23. Find the value of sin 30 ₒ $+$ cos 60 ₒ

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

24. 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 =$2\pi(r + 1$
   (c) CSA =$2\pi(r + h)$　　　**(d)** CSA =$\frac{\pi r^2 h}{4}$

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 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

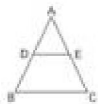27. The pair of linear equation 2x+ 3y – 9 =0 and 4x +6y – 18 = 0 represents two lines which are …….

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

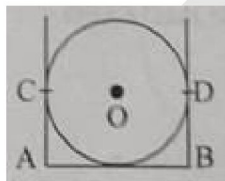28. In S = $\frac{1}{2}at^2$ if S= 72,a=4 then the value of 't' is

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

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

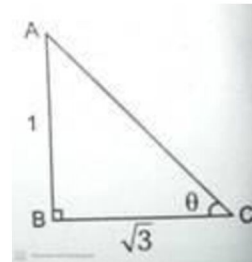30. In the figure AB, AC and BD are the tangents as shown in the figure, If AB= 'a' cms BD='b'cms then AC =

(a) 'a' cms
(b) 'b' cms
(c) (a-b) cms
(d) (a+b) cms

31. 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
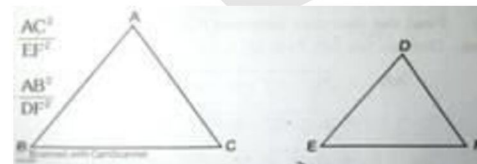(d) -1 and -3

32. In the figure, the angle of elevation ∅ is

(a) 30°
(b) 45°
(c) 90°
(d) 60°

33. 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) $300\sqrt{3}\,m$

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

s

(a) $\frac{\triangle ABC}{\triangle DEF} = \frac{AB^2}{EF^2}$
(b) $\frac{\triangle ABC}{\triangle DEF} = \frac{AC^2}{EF^2}$
(c) $\frac{\triangle ABC}{\triangle DEF} = \frac{BC^2}{EF^2}$
(d) $\frac{\triangle ABC}{\triangle DEF} = \frac{AB^2}{DF^2}$

35. 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)

36. 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

37. 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)

38. The distance between origin and the point $P(x_1 y_1)$ 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) $\sqrt{x^2_1 \div y^2_1}$

39. 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**

40. 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**

SCIENCE

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 shakesthe test tube well. After some time he is likelyto 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.
(c) It has 18 vertical columns known as Groups.
(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. At the time of interview, the heart beat often becomes faster due release of

(a) FSH　　　　　(b) LH

(c) Adrenaline　　　　　(d) Thyroxine.

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

(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.

6. Which one of the following is renewable resource?

(a) Wildlife　　　　　(b) Coal

(c) Natural gas　　　　　(d) Petroleum.

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. The human eye can focus objects at different distances by adjusting the focal length of the eye-lens.This is due to

(a) **Presbyopia**　　　　　(b) **Accomodation**

(c) **Near ightedness**　　　(d) **Far sightedness**

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

(a) CO_2　　　　　(b) H_2

(c) CO　　　　　(d) CH_4

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

(a) concave　　　(b) may be concave or convex

(c) convex　　　(d) none
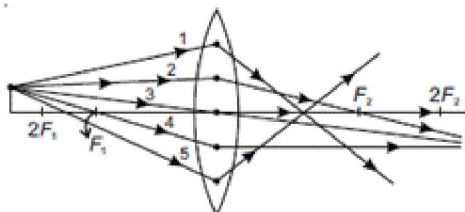
11. Observe the following chemical equations and identify the correct statement.

   (i) $CuSO_4 + Fe \rightarrow FeSO_4 + Cu$

   (ii) $2AgNO_3 + Cu \rightarrow Cu(NO_3)_2 + 2Ag$

   (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. Urine produced in the human kidneys is temporarily stored in -

   (a) Ureters
   (b) Urethra
   (c) Urinary bladder
   (d) Glomerulus.

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. 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 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

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 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

21. Dinosaurs were ancient reptiles and many of them had also characters of birds. From these fossils evidences, we conclude that

   (a) Reptiles have evolved from birds.
   (b) There exists no revolutionary relationship between reptiles and birds.
   (c) Birds have evolved from reptiles.
   (d) There is no evolutionary connection between reptiles and birds.

22. 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

23. The change that occurs in the eye to see the distant objects clearly is

(a) Focal length of the eye lens decreases
(b) Curvature of the eye lens increases
(c) Focal length of the eye lens increase
(d) Ciliary muscles of the eye contract

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. While preparing soap a small quantity of common salt is generally added to the reaction mixture of vegetable oil and sodium hydroxide. Which one of the following may be the purpose of adding common salt ?

(a) To reduce the basic nature of the soap
(b) To make the soap neutral
(c) To enhance the cleansing power of the soap
(d) To favour the precipitation of the soap

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. 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

30. Nutrients are translocated in plants through -

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

31. The electronic configuration of element X is 2,8,8,1 and the electronic configuration of element Y is 2, 8, 7. Then the type of bond formed between these two elements is

(a) Covalent bond
(b) Hydrogen bond
(c) Metallic bond
(d) Ionic bond

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**
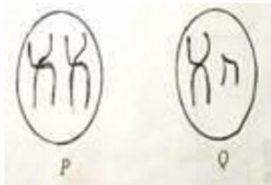
(c) **Ovary and radicle** (d) **Ovary and ovule**

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. 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**

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 century is called as the century of political problems

(a) 18th (b) 19th

(c) 16th (d) 17th

2. Nana sahib's commander was

(a) **Man singh** (b) **Wajid ali**

(c) **Tatya tope** (d) **Nana phadnavis**

3. 6- 14 years children should get free and compulsory education and the article .

(a) 24 (b) 40

(c) 30 (d) 21A

4. Jawahar Lal Nehru outlined Indian foreign policy on

(a) September 7 , 1946 (b) September 7, 1948

(c) December 25, 1946 (d) December 25,1948

5. The upper Krishna project is constructed across the river

(a) kaveri (b) Krishna

(c) kosi (d) Mahanadi

6. The largest producer of rice in India is

(a) Andhra Pradesh (b) Punjab

(c) West Bengal (d) Karnataka

7. The sikh people sighned a humiliating Lahore agreement in_____

(a) 1818 (b) 1846

(c) 1848 (d) 1857

8. The summer rainfall in Kerala is called as

(a) Kalabaisakhi (b) Mango showers

(c) Coffee blossoms (d) Andhis

9. The dictator of Italy was

(a) lenin (b) Stalin

(c) Hitler (d) Mussolin

10. The correct statement related to U.N.O. Security Council is

   (a) It has 15 permanent members
   (b) It is like a cabinet of U.N.O
   (c) It has its headquartes in Paris
   (d) That India has got permanent membership recently

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

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

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

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

13. The highest peak in the eastern ghats is

   (a) Anamudi
   (b) K²
   (c) Guru shikhar
   (d) Armakonda

14. 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

15. Quantitative Credit control Measure the following is the

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

16. The director of Balaji Tele films

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

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

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

18. The soil known as deposited soil is

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

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

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

20. 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

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

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

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

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

23. The article prohibits untouchabiities is

   (a) Article 21
   (b) Article17
   (c) Article24
   (d) Article19

24. The word wagh means

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

25. The act that became the cause for JallianWallahBhagh massacre

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

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

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

27. An example for direct tax is.

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

28. India belongs to

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

29. Maratha paper was published by _____.

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

30. The women and child development department started to provide

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

31. India and china established the BRICS in

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

32. Fazal Ali Commission was formed

   (a) For the linguistic formation of states
   (b) In order to integrate the province into Indian union.
   (c) To mediate the Jammu Kashmir issue with Pakistan
   (d) To sort out the integral differences between the states

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

34. Chipko movement took place in the year _____.

35. A fuel substance of plant origin is _____

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

37. United Nation Organization was founded on _____.

38. The first world war ended in _____.

39. In India _____ occur very after in hilly states.

40. Bengaluru International Air port is called _____