Danish Sir's Practice Papers

SSLC MCQ PRACTICE PAPER (July – 2021 Exam)

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

Code no. 2106-08

Time: 2 Hour | Total Marks: 120

MATHEMATICS

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

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

2. 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**

3. 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**

4. 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

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

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

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

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

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

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

8. 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

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

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

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

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

11. If the lines drawn to the linear equations of the type $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ 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)** $\frac{a_1}{a_2} \neq \frac{b_1}{b_2} = \frac{c_1}{c_2}$

12. If a pair of linear equations $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + C2 = 0$ 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)** $\frac{b_1}{b_2} = \frac{a_2}{b_2}$

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

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

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

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

16. 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**

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

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

18. 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)**

19. 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

20. 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**

21. 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**

22. If the nth term of an A.P.is $5+2_n$, the sum of first 20 terms is

(a) 485 **(b) 520**
(c) 525 **(d) 540**

23. 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**

24. 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**

25. 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**

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**

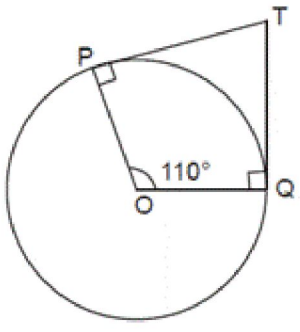
27. The pair of linea equations 2x + 5y = k, kx + 15y = 18 has infinitely many solutions if the value of k is.

(a) K = 3 **(b) K = 6**
(c) K = 9 **(d) K = 18**

28. 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**

29. 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

30. 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**

31. 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**

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

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

33. 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**

34. 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**

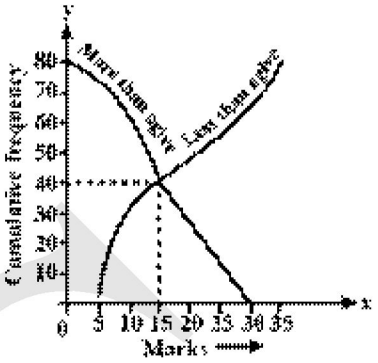
35. If the altitude of the sum is 600, the height of a tower which casts a shadow of length 30 m is

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

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. 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**

38. For a symmetrical distribution, which is correct

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

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. 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**

41. 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**

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 is not an example of a biomass energy?

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

3. Significant role of stomata in transportation is to

(a) Create upward pressure **(b)** Absorb carbon-di-oxide

(c) Release oxygen **(d)** Perform transpiration continuously

4. The blood leaving the tissues becomes richer in

(a) Carbon dioxide **(b)** Water

(c) Haemoglobin **(d)** Oxygen.

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

(a) Insulin **(b) Thyroxin**

(c) Estrogen **(d) cytokinin**

6. 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

7. The PH value of mouth is

(a) 5.0 **(b)** 5.5

(c) 5.3 **(d)** 5.1

8. 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**

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

10. 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,

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

(a) Thyroxin **(b)** Progesterone

(c) adrenaline **(d)** insulin

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 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

14. Posture and balance of the body is controlled by

(a) Cerebrum **(b)** Cerebellum

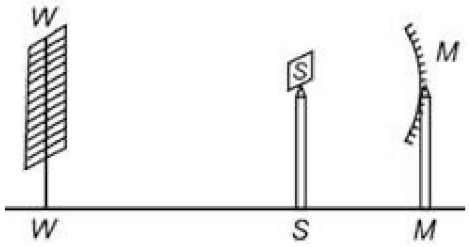
(c) Medulla **(d)** Pons.

15. 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

16. 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**

17. Myopia is corrected by

(a) Concave lens **(b) Convex lens**

(c) Concave mirror **(d) Convex mirror**

18. 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

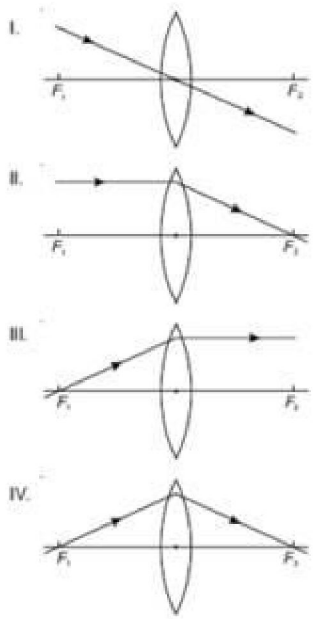
19. Solutions A, B, C and D have pH 3,4,6 and 8. The solution with highest acidic strength is

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

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

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

21. 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

22. 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

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

24. **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)** $C_2H_2, C_3H_6, C_4H_{10}$

25. **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**

26. 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

27. 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**

28. 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

29. 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

30. 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.

31. 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.

32. 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) $C_4H_{10}O$

33. 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

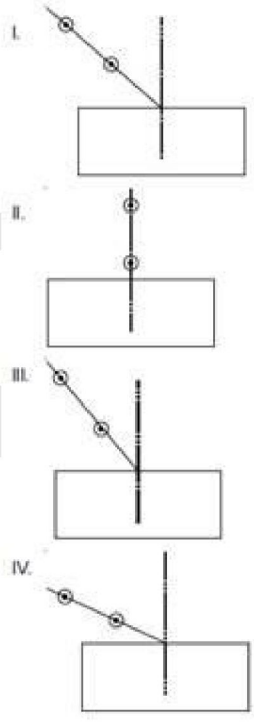
(a) P and Q
(b) Q and R
(c) P, Q and S
(d) P, R and S

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

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

35. 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

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

(a) PbO + C ⟶ Pb + CO
(b) $3MnO_2 + 4Al \longrightarrow 2A1_2O_3 + 3Mn$
(c) ZnO ⟶ + C Zn + CO
(d) $CuO + H_2 \longrightarrow Cu + H_2O$

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

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

38. 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

39. **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}

40. **Urea produced in**

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

41. 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

42. Bacteria present in human intestine

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

43. 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

44. 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

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. According to 2011 Census women literacy rate is _____.

(a) 65.46% **(b)** 82.14%
(c) 75% **(d)** 74%

18. The dictator of Italy was

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

19. 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

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

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

21. The queen of England passed a declaration in

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

22. The central bank of India is

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

23. The Viceroy who implemented the Bengal division was ____

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

24. Teleshopping means

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

25. According to karl merx division of labour leads to

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

26. Maratha paper was published by _____.

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

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

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

28. The Prohibition of Child labour was brought into force in the year

(a) 1988 CE **(b)** 1986 CE
(c) 1976 CE **(d)** 1985 CE

29. The labourer from unorganized sector is

(a) Soldier **(b)** Bank employee
(c) Lawyer **(d)** Beedi worker

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

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

31. 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

32. **The driest place in india is**

(a) Ruyli **(b) Ganganagar**
(c) Thar desert **(d) Karnataka**

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

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

34. Narayanapura dam is constructed across the river

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

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

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