Danish Sir's Practice Papers

SSLC MCQ PRACTICE PAPER (July – 2021 Exam)

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

Code no. 2106-13

Time: 2 Hour | Total Marks: 120

MATHEMATICS

1. State Basic proportionately theorem

(a) PB/AP=AQ/QC **(b)** AP/PB=AQ/QC
(c) AQ/QC=AP/PB **(d)** QC/AQ=PB/AP

2. The volume of a sphere (in cu,cm) is equal to its surface area (insq.cm). The diameter of the sphere (in cm) is :

(a) 3 **(b) 6**
(c) 2 **(d) 4**

3. If ´m´ and ´n´ are the roots of the equation $x^2 - 6x + 2 = 0$ then the value of 1/ m +1/n is

(a) 2 **(b) 3**
(c) 4 **(d) 5**

4. PA and PB are the tangents to a circle with center 'O'

If $\angle AOB = 140^0$ then $\angle APO$ =

(a) 40^0 **(b)** 90^0
(c) 70^0 **(d)** 20^0

5. Among the following which is not a quadratic equation

(a) $X + \frac{1}{x} = 5$ **(b)** $X^2 + 5 = 0$

(c) $(x + 1)^2 = \frac{1}{x}$ **(d)** $\frac{x^2 + 2}{3} = \frac{x^2 + 5x}{2}$

6. In a sequence Tn = $n^2 - 1$ and Tn= 35, then the value of n is

(a) 6 **(b)** 36
(c) 34 **(d)** -6

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

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

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

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

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. The distance between the origin and co-ordinates of a point (x, y) is

(a) $x^2 + y^2$ **(b)** $\sqrt{x^2 - y^2}$
(c) $x^2 - y^2$ **(d)** $\sqrt{x^2 + y^2}$

11. The sum and 2_{k^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** $\frac{3}{2}$

12. In a quadratic equation if $b^2 - 4ac > 0$ and not a perfect square number, then the roots are

(a) Real equal **(b) Imaginary**
(c) Rational **(d) Not equal**

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

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

14. The radii of the base of a cylinder and a cone of the same height are in the ratio 3 : 4. The ratio of their volumes is :

(a) 9 : 8 **(b) 9 : 4**
(c) 3 : 1 **(d) 27 : 16**

15. If mode of a data is 45, mean is 27, then Median is :

(a) 30 **(b) 27**
(c) 33 **(d) None**

16. If cos 40=sin5Θ, ($0 \leq \theta \leq 90^\circ$), then the value of θ is

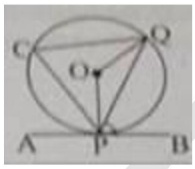
(a) 90° **(b)** 10°
(c) 0° **(d)** 45°

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

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

18. APB is a tangents at P to the circle with center 'O'.

If $\angle PQB = 60^0$ then $\angle QCP$ =



(a) 30^0 **(b)** 120^0
(c) 90^0 **(d)** 60^0

19. The pair of linear equations kx + 2Y = 5 and 3x +y = 1 has unique solution if

(a) K=6 **(b) K≠3**
(c) K=0 **(d) K has any valve**

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

(a) Cooincide **(b) Parallel**
(c) Intersect **(d) None of these**

21. Value of discriminate factor in the equation $2m^2$-5m =0 is

(a) 10 **(b) 23**
(c) 25 **(d) 27**

22. If points A(5,P),B(1,5),C(2,1) and D (6,2)from a square ABCD, then P=

(a) 7 **(b) 3**
(c) 6 **(d) 8**

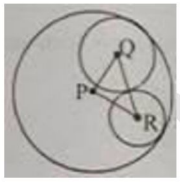
23. If tangents PA and PB from a point P to a circle with centre O, are inclined to each other at an angle of 80°, then ABC is equal to

(a) 50° **(b)** 60°
(c) 70° **(d)** 80°

24. Which of the following statement is true for common difference in A.P?

(a) A_k+1-a_k **(b)** A_k+1+a_k
(c) A_k-1-a_k **(d)** A_k-a_k+1

25. 3 circles with P,Q and R touch each other as shown in the figure. If the radii of these circles are 8cms, 5cms and 3cms then the perimeter of ΔPQR is



(a) 3cms **(b) 13cms**
(c) 16cms **(d) 32cms**

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

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

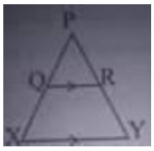
27. The ratio of volume of a cone and a cylinder of equal diameter and equal height is

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

28. $\frac{2\tan 30^0}{1+an^2 30^0}$ =

(a) $\sin 60^0$ **(b)** $\cos 60^0$
(c) $\text{Tan } 60^0$ **(d)** $\sin 30^0$

29. PQR is a triangle XY‖QR cutting PQ and PR produced at 'X' and 'Y'. If PQ= 4cms,PX=7.2cms, PR=3.5cms,then PY is



(a) 5.4cms **(b) 5.6cms**
(c) 5.7cms **(d) 6.3cms**

30. In an A.P. T_{n+5} = 35 and T_{n+1} = 23, then common difference is

(a) 2 **(b) 2n**
(c) 3n **(d) 3**

31. The nth term of 3,7,11,15,_____

(a) 4n-1 **(b)** 4n+1
(c) 4n+3 **(d)** 3n+4

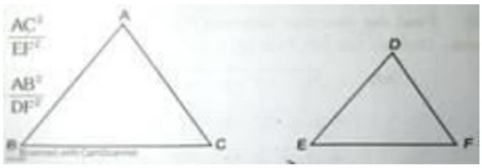
32. In S = $\frac{1}{2}\ at^2\ if$ **S= 72,a=4 then the value of** 't' is

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

33. If A and B are the points (–6, 7) and (–1, –5) respectively, then the distance 2AB is equal to [2011]

(a) 13 **(b) 26**
(c) 169 **(d) 238**

34. In this figure ΔABC ~ ΔDEF. Then which one of the following ratios is correct?



s

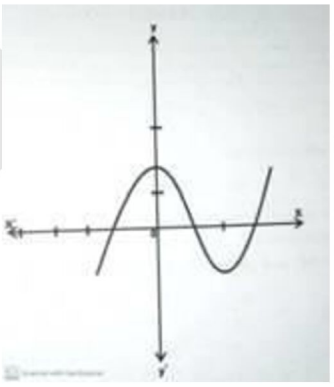
(a) $\frac{\Delta ABC}{\Delta DEF} = \frac{AB^2}{EF^2}$ **(b)** $\frac{\Delta ABC}{\Delta DEF} = \frac{AC^2}{EF^2}$

(c) $\frac{\Delta ABC}{\Delta DEF} = \frac{BC^2}{EF^2}$ **(d)** $\frac{\Delta ABC}{\Delta DEF} = \frac{AB^2}{DF^2}$

35. If the radii of circular ends of frustum of a cone are 20 cm and 12 **cm and its height is 6 cm, then the slant height of frustum (in cm) is :**

(a) 10 **(b) 8**
(c) 12 **(d) 15**

36. In the given graph of y = P (x), the number of zeroes is



(a) 4 **(b)** 3
(c) 2 **(d)** 7

37. In an A.P. the correct relation is

(a) $T_{n-5} = T_{n-4}$ + d **(b)** $T_{n-5} = T_{n-4}$ + d

(c) $T_{n-5} = T_n$ + d **(d)** $T_{n-5} = T_n$ - d

38. 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**

39. If mode = 80 and mean = 110 then the median is :

(a) 110 **(b) 120**
(c) 100 **(d) 90**

40. 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 = $\frac{\pi r^2 h}{4}$

41. The following paris of linear equations **2x +5y=3 and 6x+15y=12 represent**

(a) Intersecting lines **(b) Parallel lines**
(c) Coincident lines **(d) None from a,b,c**

SCIENCE

1. **The traditional method of sustainable natural resource management is**

(a) Following water harvesting method **(b) Minimizing the establishment of factories**
(c) Using fossil fuels abundantly **(d) Preventing overgrazing of cattle in forest areas**

2. 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)

3. The device used for measuring potential difference is known as

(a) Potentiometer **(b)** Ammeter
(c) Galvanometer **(d)** Voltmeter

4. Which law was put forward by Ernst Haeckel?

(a) Law of inheritance **(b)** Biogenetic law
(c) Law of segregation **(d)** Law of dominance.

5. A negative charge released from a point A moves along the line AB. The potential at A is 15 v.

and it varies uniformly along AB. The potential at B.

(a) May be 10 V **(b)** may be 15 V
(c) may be 20 V **(d)** must be 15 V

6. 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)** $CuO + H_2 \longrightarrow Cu + H_2O$

7. Which one of the following statement is incorrect?

(a) Economic development is linked to environment conservation **(b) Sustainable development meets the current basic human needs and also preserves resources for future generation**
(c) Sustainable development does not take into consideration the view points of all stake holders **(d) Sustainable development is a ling planned and president development**

8. The process of obtaining food in amoeba is known as:

(a) Dialysis **(b)** Cytokinesis
(c) Phagocytosis **(d)** Amoebiasisi

9. 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**

10. To determine the approximate value of the focal length of a given concave mirror, you focus the image of a distant object formed by the mirror on a screen. The image obtained on the screen, as compared to the object is always.[2016]

(a) Laterally inverted and diminished
(b) Inverted and diminished
(c) Erect and diminished
(d) Erect and highly diminished

11. A charged particle experiences minimum force when it travels

(a) parallel to the magnetic field
(b) normal to the magnetic field
(c) at 45° to the field
(d) at 75° to the field

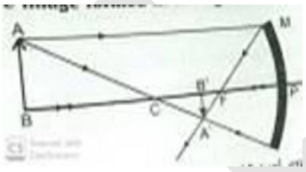
12. Nutrients are translocated in plants through -

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

13. 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

14. Observe the figure, The image formed in the figure is



(a) Real, inverted, diminished
(b) Virtual, erect, diminished
(c) Virtual, erect, enlarged
(d) Real, inverted, enlarged

15. **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

16. In a power station coal is a burnt to heat water to produce steam which further runs the turbine to generate electricity. This power station is a

(a) Thermal power plant because coal is burnt
(b) Hydro power plant because water is heated
(c) Nuclear power plant because turbine runs
(d) Bio gas power plant because coal is used

17. The brain is responsible for

(a) Thinking
(b) Regulating the heart beat
(c) Balancing the body
(d) All of the above.

18. A student very cautiously traces the path of a ray through a glass slab for different values of the angle of incidence i). He then measures the (corresponding values of the angle of refraction r) and the angle of (e) for every emergence (value of the angle of incidence. On analysing these measurement of angles, his conclusion would be. [2017]

(a) i > r > e
(b) e i = > r
(c) i < r < e
(d) i e = < r

19. Which one of the following materials cannot be used to make a lens

(a) Water
(b) Grass
(c) Plastic
(d) Clay

20. An electric generator converts

(a) electric energy into mechanical energy
(b) electrical into chemical energy
(c) mechanical energy into electrical energy
(d) none

21. Identify the correct statement among the following with respect to plant hormones

(a) Cytokinin promotes wilting of leaves
(b) Auxin inhibits stem, elongation
(c) Asbcisic acid inhibits growth of plants
(d) Gibberellins promotes falling of leaves

22. Theinternal (cellular) energy reserve in autotrophs is Glycogen

(a) glycogen
(b) Protein
(c) Starch
(d) Fatty acids.

23. To obtained a diminished image of a object from a concave mirror position of the object should be

F= Principal focus, C= Center of curvature, E= Equals to pole

(a) Between C and F **(b) beyond C**
(c) Between P and F **(d) At F**

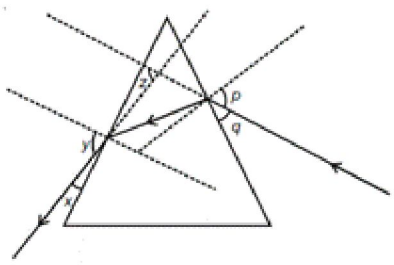
24. The nature of eye lens is

(a) Always convex **(b) Always concave**
(c) Some time convex and other times concave **(d) Cannot say**

25. The resistance of a conductor is 27 Ω. If it is cut into three equal parts and connected is parallel, then its total resistance is

(a) 6 Ω **(b)** 3 Ω
(c) 9 Ω **(d)** 27 Ω

26. Study the following ray diagram



In this diagram, the angle of incidence, the angle of emergence and the angle of deviation respectively have been represented by

[2017]

(a) y, p, z **(b)** x, q, z
(c) p, y, z **(d)** p, z, y

27. Refraction of light in the eye occurs at

(a) The lens only **(b) The cornea only**
(c) Both the cornea and the lens **(d) The pupil**

28. **Which one of the following is correct bonding between nitrogen molecule**

(a) N-N **(b) N=N**
(c) N≡N **(d) None of these**

29. **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**

30. A student while observing an embryo of a pea seed in the laboratory listed various parts of the embryo as given below:

Testa, Tegmen, Radicle, Plumule, Micropyle, Cotyledon.

On examining the list the teacher remarked that only three parts are correct.

Select three correct parts from the above list:

[2016]

(a) Testa, Radicle, Cotyledon **(b)** Tegmen, Radicle, Micropyle
(c) Cotyledon, Plumule, Testa **(d)** Radicle, Cotyledon, Plumule

31. Oxygen liberated during photosynthesis comes from -

(a) Water **(b)** Chlorophyll
(c) Carbon dioxide **(d)** Glucose.

32. Methyl orange is

(a) a) red in acidic medium, yellow in basic medium. **(b)** b) yellow in acidic medium, red in basic medium.
(c) c) colourless in acidic medium, red in basic medium. **(d)** d) red in acidic medium, colourless in basic medium.

33. At the time of interview,the heartbeat often becomes faster due to release of

(a) FSH **(b) LH**
(c) Adrenaline **(d) Thyroxine**

34. A deviation in the path of a ray of light can be produced

(a) By a glass prism but not by a rectangular glass slab **(b)** By a rectangular glass slab but not by a glass prism
(c) By a glass prism as well as a rectangular glass slab **(d)** Neither by a glass prism nor by a rectangular glass slab

35. Hypermetropia is corrected by

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

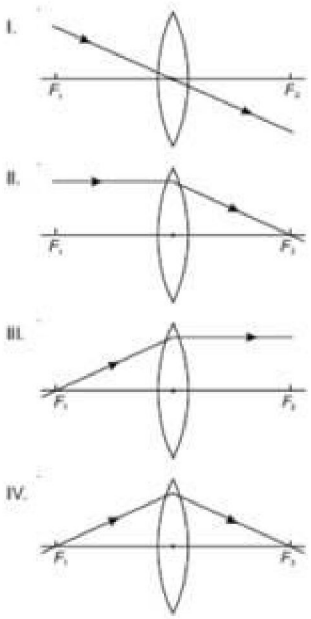
36. Lack of oxygen in muscles often leads to cramps among cricketers. This results due to

(a) Conversion of pyruvate to ethanol **(b)** Conversion of pyruvate to glucose
(c) Non conversion of glucose to pyruvate **(d)** Conversion of pyruvate to lactic acid.

37. The metal which is used in an electric bulb as a filament is

(a) Iron **(b)** copper
(c) aluminum **(d)** tungsten

38. Study the following ray diagrams : [2013]

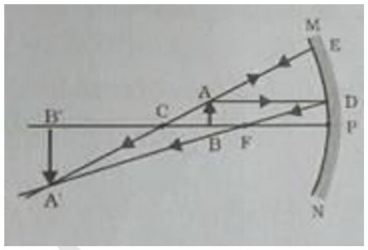


The diagrams showing the correct path of the

ray after passing through the lens are

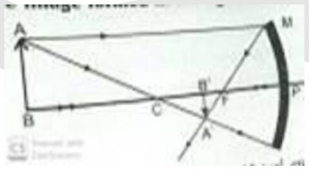
(a) II and III only **(b)** I and II only
(c) II and III,I **(d)** I, II and IV

39. Observe the figure. The image formed in the figure is



(a) Real, inverted, diminished **(b)** Real, inverted enlarge
(c) Virtual, erect, enlarge **(d)** Virtual, erect, diminished

40. Observe the figure, The image formed in the figure is



(a) Real, inverted, diminished **(b)** Virtual, erect, diminished
(c) Virtual, erect, enlarged **(d)** Real, inverted, enlarged

41. An electric fuse is based on

(a) the heating effect of the current **(b)** the chemical effect of the current
(c) the magnetic effect of the current **(d)** none of these

42. A student takes 2 ml acetic acid in a dry test tube and adds a pinch of sodium hydrogencarbonate to it. He makes the following observations

(a) A colourless and odourless gas evolves witha brisk effervescence **(b)** The gas turns lime water milky when passedthrough it
(c) The gas burns with an explosion when a burning splinter is brought near it **(d)** The gas extinguishes the burning splinter which is brought near it

43. 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

44. 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

45. **The filteration unit of kidney are called**

(a) Uretar
(b) Urethra
(c) Neurons
(d) Nephrons

SOCIAL STUDIES

1. The article accorded special status to Karnataka is

(a) 371A
(b) 371B
(c) 371J
(d) 371H

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

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

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

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

4. 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

5. The summer rainfall in west Bengal is called as

(a) Kalabaisakhi
(b) Mango showers
(c) Coffee blossoms
(d) Andhis

6. The largest producer of sugarcane in the world is

(a) American
(b) Brazil
(c) Mexico
(d) India

7. The First Carnatic War was fought between

(a) Nawab Anwaruddinand the English
(b) The French and the English
(c) Duplex and the Nizam of Hyderabad
(d) The English and the Nizamof Hyderabad

8. The women are not allowed to participate in developmental programs. This feature of gender discrimination is

(a) Inequality in family
(b) Inequality in opportunities
(c) Inequality in infrastructure
(d) Inequality in Birth rate

9. Bhaskara is planning to buy a car in future . How would he saves his money through bank

(a) Recurring deposit account
(b) Fixed deposit account
(c) Saving bank account
(d) Current account

10. The summer crops is also called as

(a) Kharif
(b) Rabi
(c) Zaid
(d) Baverage

11. **The district having the largest forest area.**

(a) Uttar Pradesh
(b) Madhya Pradesh
(c) Maharastra
(d) Andra Pradesh

12. The First World War came to an end with the treaty of

(a) Versailles
(b) Paris
(c) Geneva
(d) Tashkent

13. Maratha paper was published by _____.

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

14. I am an artist painting a picture for my own satisfaction. This is an example for

(a) Labour discrimination
(b) Paid work
(c) unpaid work
(d) Unorganised work

15. The ruler of Surapura was

(a) Chikkaveerarajendra
(b) Veerappa
(c) Vekatappa Nayaka
(d) Kalyana swami

16. Balaraju is saving his money in bank but he doesn't want to withdraw whenever he wants, suggest him

(a) Recurring deposit account
(b) Fixed deposit account
(c) Saving bank account
(d) Current account

17. The word Banco is derived from

(a) Italian
(b) French
(c) Greek
(d) Latin

18. The company which had 2 billion dollors by 2006 is

(a) Wipro **(b)** Balaji tele films
(c) Biocon **(d)** Infosys

19. The Siwalik hills of Himalayas are also known as _____

(a) Lesser Himalayas **(b)** Himadri
(c) Himachal **(d)** Outer Himalaya

20. The bank account that is best suitable for businessmen is

(a) Saving bank account **(b)** Current Account
(c) Recurring Deposit Account **(d)** Term Deposit Account

21. The almatti dam is constructed across the river

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

22. The correct group of countries who led cold war is

(a) USA - China **(b)** China soviet Russia
(c) USA - Japan **(d)** USA - Soviet Russia

23. When did Tippu die

(a) 1798 **(b)** 1799
(c) 1767 **(d)** 1768

24. Women's commissions have been established to address

(a) Various problems of women **(b)** Women education
(c) Women's health **(d)** Women development department

25. The payment of gratuity act is passed in

(a) 1961 **(b)** 1986
(c) 1971 **(d)** 1980

26. The direct tax among these

(a) Stamp duty **(b)** Penalties
(c) GST **(d)** VAT

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

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

28. The summer rainfall in Kerala is called as

(a) Kalabaisakhi **(b)** Mango showers
(c) Coffee blossoms **(d)** Andhis

29. The ruler of Surapura was

(a) Chikkaveerarajendra **(b)** Veerappa
(c) Vekatappa Nayaka **(d)** Kalyana swami

30. One of the features of unorganized sector is

(a) labour **(b)** Migration
(c) wages **(d)** Without pay labour

31. The word wagh means

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

32. Quantitative Credit control Measure the following is the

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

33. The type of vegetation found in the desert forests is

(a) Tall glass **(b) Throny shrubs**
(c) Trees with conical flowers **(d) Trees with wide leaves**

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

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