

Subject: Social Science**Q1. Choose the correct Answer:**

1. Certain groups feels marginalised due to factors, like:
(a) Social and cultural (b) Economic (c) Political (d) All of these
2. What literally means the original inhabitants?
(a) Adivasis (b) Minorities (c) Ghetto (d) Devoid
3. Where do Adivasis live?
(a) In or near Forest (b) Kaccha house (c) Colonies (d) None of these
4. How much is population of the Adivasis in India?
(a) 2% (b) 4% (c) 8% (d) 16%
5. Stereotyping of Adivasis is related to their being:
(a) Exotic (b) Primitive (c) Backward (d) All the above
6. A person who does not get adequate nutrition or food is known as:
(a) Malnourished (b) Nourished (c) well-nourished (d) none of these
7. What is use of timber?
(a) Construction of houses (b) Railways (c) Furnitures (d) All of these
8. Constitutional safeguards are provided to the minorities on the basis of:
(a) Religion (b) Language (c) Both (a) and (b) (d) None of these
9. is a locality which is populated largely by members of a particular community.
(a) Ghetto (b) Adivasis (c) Minorities (d) None of these
10. Resources drawn from nature and used without much modification are called
(a) Human made resources (b) natural resources (c) cultural resources (d) none of these
11. The uneven distribution of population in the world is due to the varied characteristics of
(a) Land and climate (b) climate (c) vegetation (d) settlements
12. The example of common property resource is
(a) Community land (b) individual building (c) both (a) and (b) (d) none of these
13. Which of the following is water related disease?
(a) Plague (b) Eye Flu (c) Cholera (d) All of these
14. Who carries the responsibility of providing public facilities to the people?
(a) Government (b) Public (c) Private Organization (d) none of these
15. What is Biosphere?
(a) Narrow Zone (b) Broad zone (c) Both A & B (d) none of these
16. Type of farming to meet family needs is known as
(a) Subsidence farming (b) Mixed Farming (c) Organic Farming (d) None of these

17. Which of the following crops are raised in commercial grain farming?
 (a) Wheat (b) Maize (c) Both of these (d) None of these
18. What is Cultivation of grapes called?
 (a) Sericulture (b) Viticulture (c) Floriculture (d) Horticulture
19. Which of the following is a secondary activity?
 (a) Coal mining industry (b) Tourism industry (c) Fishing (d) Agriculture
20. Which of the following is a private sector industry?
 (a) Hindustan Aeronautics Limited (b) Tata Iron and Steel Industry
 (c) Steel Authority of India (d) National Thermal Power Corporation
21. Which word is used for pollution?
 (a) Contamination (b) Toxic (c) Pure (d) None of these
22. The money spent to purchase new machine or building for gaining profits in future is called
 (a) Investment (b) expenditure (c) losses (d) none of these
23. Hindustan Socialist Republic Association was related with the nationalist
 (a) Lala Lajpat Rai (b) Balgangadhar Tilak (c) Bhagat Singh (d) None of these
24. The highest density of the population in the world is in
 (a) Europe (b) South America (c) South central Asia (d) none of these
25. Which of the following is not the region where very few people live?
 (a) High altitudes areas (b) Plains (c) High mountains (d) Equatorial forest area
26. Which day of the year is celebrated as Water Day?
 (a) 26 January (b) 15 January (c) 15 August (d) 22 March
27. The movements that occur in oceans can be broadly called
 (a) wave (b) circulation (c) water cycle (d) all of these
28. The rhythmic rise and fall of ocean water twice in a day is known as
 (a) tide (b) wave (c) ocean current (d) none of these
29. The Labrador and Gulf stream are the examples of:
 (a) Tides (b) Ocean currents (c) Tsunami (d) Waves
30. Who drafted the Indian Constitution?
 (a) Pt. J.L. Nehru (b) Mahatma Gandhi
 (c) Lai Bahadur Shastri (d) Dr. B.R. Ambedkar
31. Who represent our problems in the Parliament House?
 (a) Ourselves (b) MLAs (c) SHO (d) MPs
32. Civil Rights movement of USA was about:
 (a) Afro Americans (c) Both of these (c) Indo Americans (d) None of these
33. What is the central feature of Democracy?
 (a) Inequality (b) Discrimination (c) Equality (d) restrictions
34. Read the following environmental conditions of tropical rain forests:
 (i) Hot and humid climate (ii) Unequal lengths of day and night

(iii) Abundant rain fall

(iv) Abundant light and moisture

Identify the conditions from the above list that are responsible for the presence of large number of plants and animals in tropical rain forests.

(a) (i) and (ii)

(b) (i) and (iii)

(c) (i), (iii) and (iv)

(d) (ii) and (iv)

35. The coldest region on earth is the:

(a) Polar region

(b) Tropical region

(c) Temperate region

(d) Coastal region

36. Choose the odd one from the following options:

(a) Thick layer of fat under the skin

(b) White fur

(c) Long grasping tail

(d) Wide and large feet with sharp claws

37. Which of the following is not an adaptive feature in polar bear?

(a) White fur

(b) Strong sense of smell

(c) Long curved and sharp claws

(d) Long tail

38. Which gas is used by the green plants to make their food?

(a) Oxygen

(b) Carbon dioxide

(c) Nitrogen

(d) None of these

39. Which is the important gas used by human beings for breathing?

(a) Nitrogen

(b) Carbon dioxide

(c) Oxygen

(d) Sodium chloride

40. When the air is heated it becomes

(a) Lighter?

(b) Heavier?

(c) Colder?

(d) None of these

Subject: Science

1. What does the given figure signify?



(a) Life cycle of a plant

(b) Jhum cultivation

(c) Crop rotation

(d) Mixed cropping

2. Following are given the differences between manures and fertilizer. Which of the given differences are incorrect?

	Manure	Fertilisers
(i)	They are not readily soluble in water. So they are absorbed by the plants slowly.	They are readily soluble in water and are absorbed by the plants easily.
(ii)	These are inorganic substances.	These are organic substances.
(iii)	Excessive use does not harm the soil texture, they provide humus to the soil.	Excessive use can change the chemical composition of the soil and also pollutes water.
(iv)	They restore the soil texture and help in water retention.	They may damage the soil texture.
(v)	These are nutrient specific.	These are not nutrient specific.

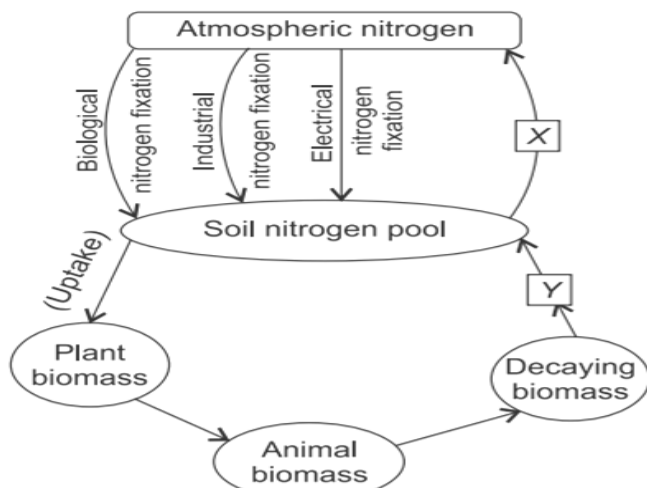
(a) ii and v only

(b) i, ii and v only

(c) iii and iv only

(d) i, iii and v only

3.



Identify X and Y and select the correct statement regarding this.

- (a) In the process X, protein is converted into ammonia by the action of bacteria while in the process Y nitrates present in the decaying remains get converted into free nitrogen gas.
- (b) In the process X, nitrates present in the soil get converted into free nitrogen gas while in the process Y, protein is converted into ammonia by the action of bacteria.
- (c) Process X represents the conversion of ammonia into nitrates while process Y represent the conversion of nitrates into the free nitrogen gas.
- (d) Process X represents the conversion of ammonia into nitrites while process Y represents the conversion of complex organic compound like proteins into ammonia.

4. Match column I with column II and select the correct option from the given codes.

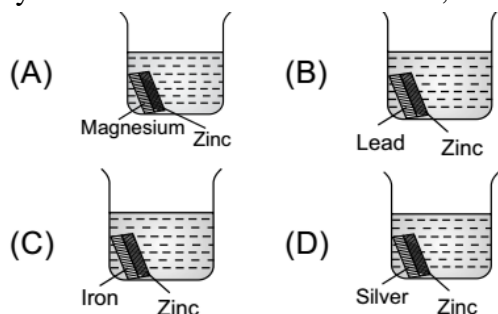
Column I

Column II

- | | | |
|---|---------|--|
| P | Nylon | (i) Burns quickly with a smell of burning paper |
| Q | Wool | (ii) Burns with sooty flame, fabric shrinks and black beads are formed |
| R | Acrylic | (iii) Shrinks after exposure to flame, forms hard beads and gives a smell of burning hair. |
| S | Rayon | (iv) Burns slowly with a smell of burning hair. |

- (a) P – (i), Q – (iv), R – (ii), S – (iii)
- (b) P – (iii), Q – (iv), R – (ii), S – (i)
- (c) P – (iv), Q – (iii), R – (i), S – (ii)
- (d) P – (ii), Q – (iv), R – (iii), S – (i)

5. Each of the given beakers contains two metal strips of same size fastened together and immersed in hydrochloric acid. After 5 minutes, which beaker will contain the least amount of zinc ions?



6. Read the following statement carefully.

X: it is a fossil fuel used in thermal power plants to produce electricity.

Y: It is a porous, black and almost pure form of carbon.

Z: It is mixture of about 200 substances.

X, Y and Z are respectively.

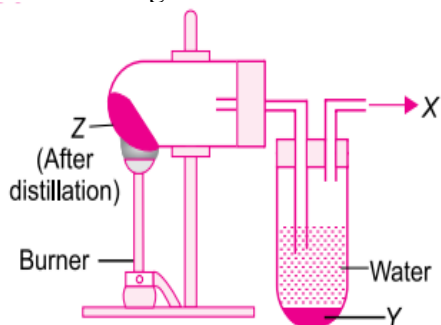
- (a) Petroleum, coal gas, coke
(c) CNG, Bitumen, diesel

- (b) Coal, coke, coal tar
(d) Coal gas, petrol, paraffin wax

7. Which of the following reactions takes place in soda-acid type fire extinguisher?

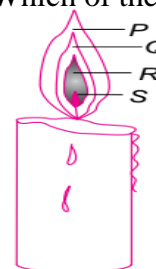
- (A) $\text{CaCO}_3 \xrightarrow{\Delta} \text{CaO} + \text{CO}_2$
 (B) $2\text{NaHCO}_3 \xrightarrow{\Delta} \text{Na}_2\text{CO}_3 + \text{H}_2\text{O} + \text{CO}_2$
 (C) $2\text{NaHCO}_3 + \text{H}_2\text{SO}_4 \longrightarrow \text{Na}_2\text{SO}_4 + 2\text{H}_2\text{O} + 2\text{CO}_2$
 (D) $\text{CaCO}_3 + \text{H}_2\text{SO}_4 \longrightarrow \text{CaSO}_4 + \text{H}_2\text{O} + \text{CO}_2$

8. Observe the figure of destructive distillation of coal



Now, select the incorrect statement regarding X, Y and Z.

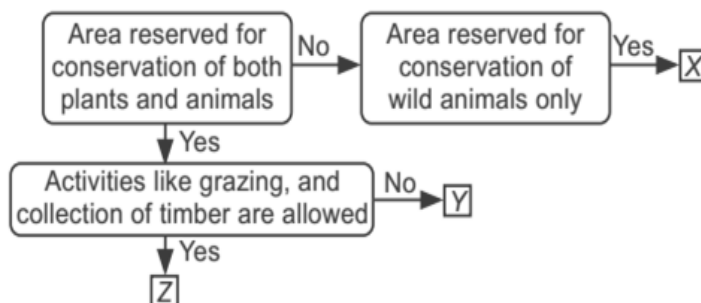
- (a) Z is a pure form of carbon and is used as reducing agent in the extraction of metals
 (b) X is used as a fuel in industries.
 (c) Y is tough and porous and is used in the manufacture of produces gas and water gas.
 (d) None of these
9. Different zones of a candle flame are marked by the letters P, Q, R and S. Which of the following statements are correct?



- (i) P is the luminous zone and is the hottest part of candle flame.
 (ii) In zone Q, there is inadequate supply of oxygen.
 (iii) Zone R contains unburnt wax vapours produced by melting of wax.
 (iv) In S zone, carbon monoxide burns with a blue flame.

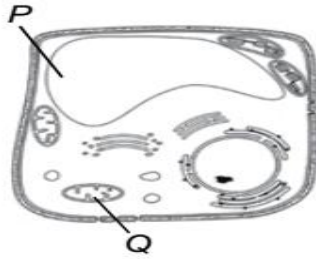
- (a) i and ii only (b) ii, iii, and iv only (c) ii and iv only (d) i, ii and iii only

10. Refer to the given flowchart and identify X, Y and Z.



- | X | Y | Z |
|-----------------------|-------------------|-------------------|
| (a) Biosphere reserve | Sanctuary | National Park |
| (b) Biosphere reserve | National Park | Sanctuary |
| (c) Sanctuary | National Park | Biosphere reserve |
| (d) National Park | Biosphere reserve | Sanctuary |

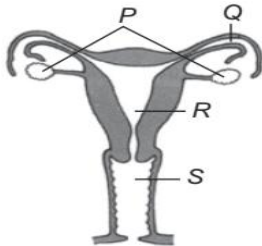
11. In the given figure showing the ultra structure of a plant cell, identify the parts marked as P and Q and select the correct statements regarding these.



- (i) Part P helps in osmoregulation
- (ii) Cellular respiration occurs in part Q.
- (iii) Synthesis of sugar occurs in part Q.
- (iv) Part P help in synthesis of protein.

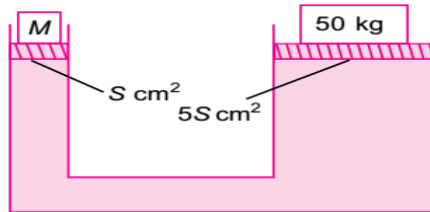
- (a) i and ii only (b) i and iii only (c) iii and iv only (d) ii and iv only

12. Refer to the given figure. Identify the labeled parts (P-S) and select the correct option.



- | P | Q | R | S |
|--------------------------------|---------------------------|----------------------------|-------------------------|
| (a) Site of gamete production | Site of fertilization | Site of embryo development | Passage for sperm entry |
| (b) Site of gamete production | passage for sperm entry | Site of embryo development | Site of fertilization |
| (c) Site of embryo development | Site of gamete production | Site of fertilization | Passage for sperm entry |
| (d) Site of fertilization | Site of gamete production | Site of embryo development | Passage for sperm entry |

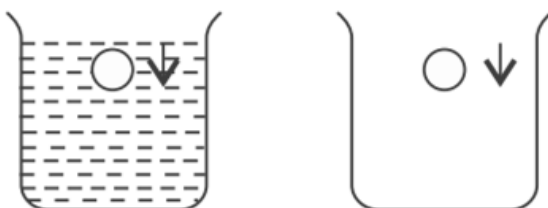
13. The diagram shows a hydraulic system in equilibrium. The cross-sectional areas of the smaller piston and the larger piston are $S \text{ cm}^2$ and $5S \text{ cm}^2$ respectively.



The mass M required to balance the load of 50 kg is

- (a) 2 kg (b) 5kg (c) 8kg (d)10kg

Direction (Q. No. 14 and 15) : Read the passage carefully and answer the following questions. In the figures shown, there are two jars, one is filled with water and other is empty. There are two balls of plasticine of the same size.



14. In which jar does the ball reach the bottom first?

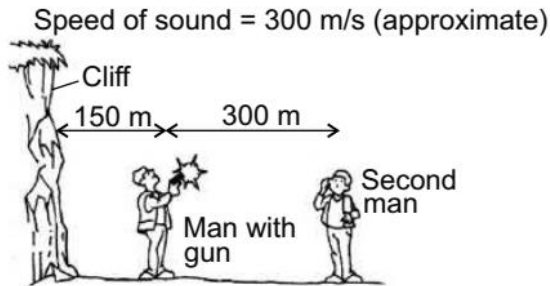
- (a) In jar filled with water (b) In jar without water

(c) In both the jars at the same time (d) Can't be said because data is insufficient

15. What do you observe from the given information?

- (a) Friction due to air is much smaller than the friction due to liquid.
- (b) Friction due to air is much greater than the friction due to liquid.
- (c) Friction due to air is equal to the friction due to liquid.
- (d) None of the se

16. A man fires a gun 150 m from a cliff. A second man who is standing 300m further away from the cliff hears the gunshot 1 second after the sees the flash. The second man will hear the echo from the cliff.



- (a) 1 second after seeing the flash
- (b) 2 seconds after hearing the gunshot
- (c) 2 seconds after seeing the flash
- (d) 4 seconds after hearing the gunshot.

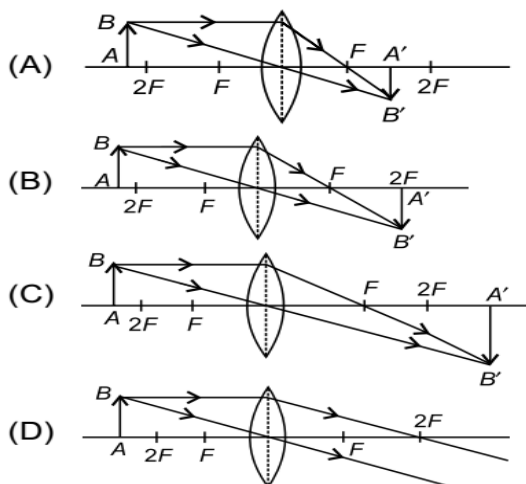
17. In substance Q, bulb lights up but no substance is found either at cathode or at anode, why?

- (a) Because Q is non-electrolyte
- (b) Because Q is an element which remains unchanged when it conducts electricity.
- (c) Because Q is an electrolyte that conducts electricity when it is in the molten state.
- (d) Because Q is a poor conductor of electricity.

18. If an object made of substance X is rubbed with an object made of substance Y, then X becomes positively charged and Y becomes negatively charged. If, however, an object made of substance X is rubbed against an object made of substance, Z then X becomes negatively charged. What will happen if an object made of substance Y is rubbed against an object made of substance Z?

- (a) Both Y and Z becomes positively charged.
- (b) Y becomes positively charged and Z becomes negatively charged.
- (c) Y becomes negatively charged and Z becomes positively charged.
- (d) Both Y and Z becomes negatively charged.

19. Which of the following ray diagrams shown below represents the image formed by the convex lens when the object is placed beyond $2F$?



20. Consider the following statements and select the option which correctly identifies true (T) and false (F).

- (i) Part that gives colour to the eye is iris.
- (ii) Transparent outer layer that refracts light is lens.

- (iii) Retina is a light sensitive layer of the eye.
 (iv) Cornea is a region without any sensory cells.

	(i)	(ii)	(iii)	(iv)
(a)	F	T	F	T
(b)	T	F	T	T
(c)	T	T	F	F
(d)	F	F	T	T

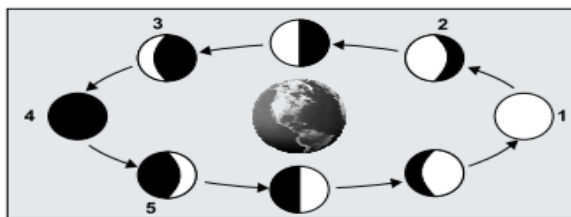
21. Read the given statements and select the correct option

Statement 1 : Venus is hotter than mercury though it is far away from the sun.

Statement 2: Cloudy atmosphere of venus reflects almost 75 percent of the sunlight that falls on it.

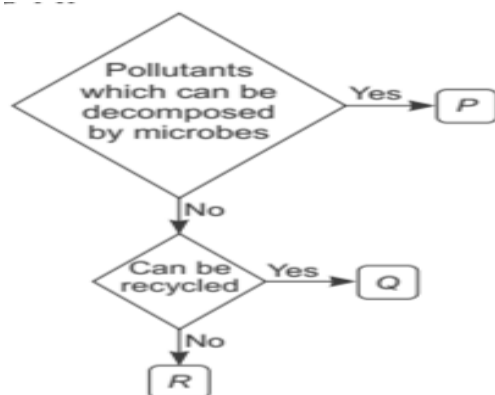
- (a) Both statements 1 and 2 are true and statement 2 is the correct explanation of statement 1.
 (b) Both statements 1 and 2 are true but statement 2 is not the correct explanation of statement 1.
 (c) Statement 1 is true but statement 2 is false.
 (d) Both statements 1 and 2 are false

22. Phases of the moon are as shown in the figure. Which of the following options shows the correct labeling?



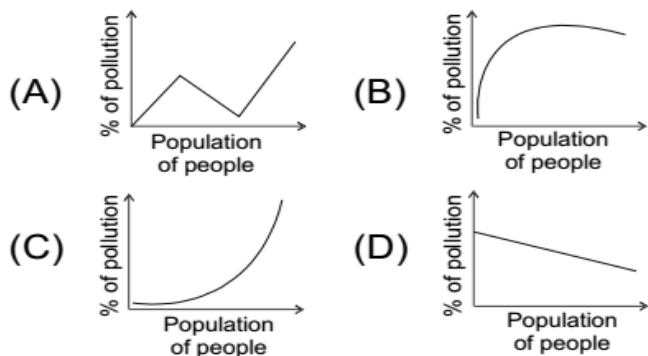
- (a) 1- Full moon, 2- Waning gibbous moon, 3 - Waning crescent moon, 4 - New moon, 5 - Waxing crescent moon.
 (b) 1 - New moon, 2 - Waxing gibbous moon, 3 - Waning crescent moon, 4 - Full moon, 5 - Waxing crescent moon.
 (c) 1- Waning crescent moon, 2 - Waning gibbous moon, 3 - Full moon, 4 - New moon, 5 - Waxing crescent moon
 (d) 1 - New moon, 2 - Waning gibbous moon, 3 - Waning crescent moon, 4 - Full moon, 5 - Waxing gibbous moon

23. Study the given flow chart and identify P, Q and R.

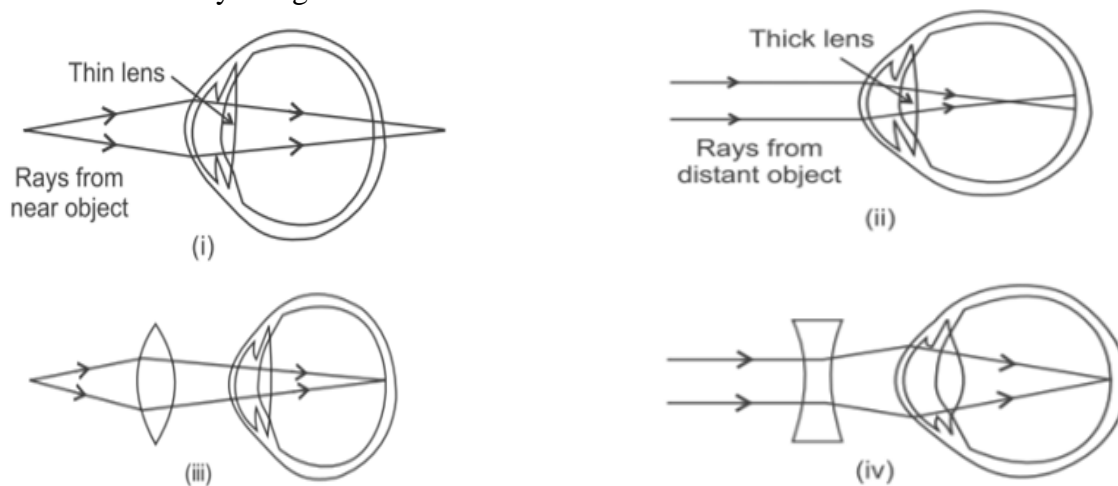


- | P | Q | R |
|----------------------|---------------|----------------|
| (a) Livestock wastes | Aluminium can | DDT |
| (b) Garbage | BHC | Aluminium cans |
| (c) Sewage sludge | DDT | Styrofoam cup |
| (d) Livestock wastes | BHC | Grocery |

24. Which of the following graphs shows the likely relation between the percentage of pollution to the population of people in a particular town?



25. Which of the following ray diagrams given here shows respectively the shortsightedness condition and its correctness by using a lens?



- (a) i and iv (b) i and ii (c) ii and iv (d) ii and iii

26. Transplantation of seedling is done in:

- (a) Coffee (b) Cocoa (c) Rice (d) Mango

27. BHC (Benzene Hexachloride) is a :

- (a) Weedicide (b) Fertilizer (c) Fungicide (d) Pesticide

28. The soil matter formed by decayed organic matter is classed:

- (a) Biocide (b) Fertilizer (c) Humus (d) Pesticides

29. Which is pesticide?

- (a) Malathion (b) 2,4- dichlorophemoxyacetic acid (c) Metolachlor (d) Chloroform

30. Which of the following is not provided to the soil by a chemical fertilizer?

- (a) Nitrogen (b) Humus (c) Potassium (d) Phosphorus

31. The chemical substances rich in nutrients are called:

- (a) Fertilizers (b) Weedicides (c) Pesticides (d) Herbicides

32. Compost is basically a:

- (a) Manure (b) Fertilizer (c) Pesticide (d) Weedicide

33. Which of the following is generally used for making compost?

- (a) Metals (b) Paper (c) Plastics (d) Organic plant waste

34. What is NPK?

- (a) Fertilizer (b) Manure (c) Weedicide (d) Weed

35. Separating grains from chaff is called:

- (a) Sourcing (b) Threshing (c) Tilling (d) Harvesting

36. Which of the following nutrient replenishes the soil after growing legumisour plant?

- (a) Nitrogen (b) Oxygen (c) Phosphorus (d) Potassium

37. The management of rearing of animals for food and other products is known as:

- (a) Granaries (b) Animal husbandry (c) Poultry (d) Warehouse

38. Human immunodeficiency virus first destroys these cells:

- (a) Leucocytes (b) B-Lymphocytes (c) Thrombocytes (d) Helper T- Lymphocytes

39. Our body synthesizes interferon in response to:

- (a) Fungi (b) Bacteria (c) Virus (d) Myeoplasma

40. Salmonella causes:

- (a) Tetanus (b) T.B. (c) Polio (d) Typhoid

Subject: Maths

1. Which of the following statements is TRUE?

- (a) $\frac{5}{7} < \frac{7}{9} < \frac{9}{11} < \frac{11}{13}$ (b) $\frac{11}{13} < \frac{9}{11} < \frac{7}{9} < \frac{5}{7}$
(c) $\frac{5}{7} < \frac{11}{13} < \frac{7}{9} < \frac{9}{11}$ (d) $\frac{5}{7} < \frac{9}{11} < \frac{11}{13} < \frac{7}{9}$

2. From the following integers, the largest integer is

- (a) -1111 (b) -111 (c) -11 (d) -1

3. $\left(1 - \frac{1}{2}\right)\left(1 - \frac{1}{3}\right)\left(1 - \frac{1}{4}\right)\left(1 - \frac{1}{5}\right) \dots \dots \dots \left(1 - \frac{1}{n}\right)$ is

- (a) 1 (b) $\left(1 - \frac{1}{n}\right)^2$ (c) 1/n (d) None of these

4. In an examination a student was asked to find $\left(\frac{3}{14}\right)^{th}$ of a certain number. By mistake, he found

$\left(\frac{3}{4}\right)^{th}$ of it. His answer was 150 more than the correct answer. The number given to him is

- (a) 290 (b) 280 (c) 240 (d) 180

5. A man is 35 years old and his son 7 years now. In how many years will the son be half as old as his father?

- (a) 28 years (b) 21 years (c) 14 years (d) 7 years

6. ABCD is a square and ΔBCE is equilateral such that E is outside the square $\angle AED$ is

- (a) 45° (b) 30° (c) 20° (d) 15°

7. ABCD is a parallelogram. The angle bisectors of $\angle A$ and $\angle D$ meet at O. The measure of $\angle AOD$ is _____.

(a) 45° (b) 90° (c) Depends on the angle A and D (d) Not able to determine from the given data

8. A bag contains x red balls, $(x+5)$ blue balls and $(3x+10)$ white balls. If the probability of drawing a white ball is $\frac{11}{18}$, what is the number of blue balls?
- (a) 15 (b) 20 (c) 35 (d) 55
9. The average of twenty-five numbers is 18, the average of first twelve is 14 and that of the last twelve is 17. The thirteenth number is
- (a) 72 (b) 78 (c) 85 (d) 28
10. In a survey of 500 ladies, it was found that 180 likes coffee while rest of the ladies dislike it. From these ladies, one is chosen at random. What is the probability that the chosen lady dislikes coffee?
- (a) $\frac{16}{25}$ (b) $\frac{9}{25}$ (c) $\frac{7}{25}$ (d) $\frac{31}{50}$ (e) None
11. If $a = 0.1039$, then the value of $3a - \sqrt{4a^2 - 4a + 1}$ is
- (a) 0.1039 (b) 0.2078 (c) 1.1039 (d) 2.1039
12. The value of $\sqrt{10 + \sqrt{25 + \sqrt{108 + \sqrt{154 + \sqrt{225}}}}}$ is
- (a) 4 (b) 6 (c) 8 (d) 10
13. If $(125)^x = 3125$, then x equals
- (a) $\frac{3}{5}$ (b) $\frac{5}{3}$ (c) $\frac{1}{4}$ (d) $\frac{1}{5}$
14. The Value of $\frac{(2.3)^3 - 0.027}{(2.3)^2 + 0.69 + 0.09}$ is
- (a) 2 (b) 2.273 (c) 2.327 (d) None of these
15. What number will come in place of questions mark?
- $$(\sqrt{8} \times \sqrt{8})^{1/2} + (9)^{1/2} = (?)^3 + \sqrt{8} - 340$$
- (a) 7 (b) 19 (c) 18 (d) 9
16. The price of rice has increased by 60% In order to restore to the original price the new price must be reduced by
- (a) $33\frac{1}{3}\%$ (b) $37\frac{1}{2}\%$ (c) 40 % (d) 45 %
17. If $z = \frac{x^2}{y}$ and x, y both are increased in value by 10 % then the value of z is
- (a) Unchanged (b) increased by 10 % (c) Increased by 11% (d) increased by 20%
18. If the cost price of 21 copies of a book, are the same as the selling price of 18 copies of the book, then gain percent is
- (a) $14\frac{2}{7}\%$ (b) $16\frac{2}{3}\%$ (c) $33\frac{1}{3}\%$ (d) $23\frac{1}{3}\%$
19. Successive discounts of 10% and 20% are equivalent to a single discount of :
- (a) 30% (b) 15% (c) 72% (d) 28%
20. If $x + \frac{1}{x} = \sqrt{7}$ find the value of $x^4 + \frac{1}{x^4}$

(a)23

(b)25

(c)27

(d)29

21. Simplify : $\frac{(856+167)^2 + (856-167)^2}{856 \times 856 + 167 \times 167}$

(a)2

(b)1

(c)0

(d)3

22. The maximum length of a pencil that can be kept in a rectangular box of dimensions 12cm \times 9cm \times 8cm, is

(a) 13cm

(b)17cm

(c)18cm

(d)19cm

23. The numbers of coins each of radius 0.75 cm and thickness 0.2 cm to be melted to make a right circular cylinder of height 8 cm and base radius 3cm is

(a) 460

(b) 500

(c)600

(d)640

24. The value of $\frac{(5)^{0.25} \times (125)^{0.25}}{(256)^{0.10} \times (256)^{0.15}}$ is

(a) $\frac{\sqrt{5}}{2}$ (b) $\frac{5}{4}$ (c) $\frac{25}{2}$ (d) $\frac{25}{16}$

25. If $a^x = \sqrt{b}$, $b^y = \sqrt[3]{c}$ and $c^z = \sqrt{a}$ then the value of xyz is

(a) $\frac{1}{2}$ (b) $\frac{1}{3}$ (c) $\frac{1}{6}$ (d) $\frac{1}{12}$

26. The cost of the article was Rs. 15500 and Rs. 500 was spent on its repairing. If it is sold for a profit of 15%. The selling price of the article is:

(a) Rs.16400

(b) Rs.17400

(c) Rs.18400

(d) Rs.19400

27. The price of a motorcycle was Rs. 34,000 last year. It has increased by 20% this year. The price of motorcycle now is:

(a) Rs. 36,000

(b) Rs. 38,800

(c) Rs. 40,800

(d) Rs. 32,000

28. If the sum of interior angles of a regular polygon is 540° . Find the name of the polygon.

(a) Quadrilateral

(b) Pentagon

(c) Hexagon

(d) Septagon

29. If a polyhedron has 6 vertices and 12 edges. What is the number of faces it has?

(a) 6

(b) 8

(c) 12

(d) 18

30. $a \times (b \times c) = (a \times b) \times c$ is called

(a) associative law for addition

(b) associative law for multiplication

(c) commutative law for addition

(d) commutative law for multiplication

31. The reciprocal of a positive rational number is

(a) a positive rational number

(b) a negative rational number

(c) 0

(d) 1.

32. The product of the numbers is 9. The reciprocal of one of these numbers is 4 times the reciprocal of the other number. What is the sum of the two numbers?

(a) $10/3$

(b) 7

(c) $20/3$ (d) $15/2$

33. In a bag of marbles, of the marbles are blue and the rest are red, If the number of red marbles is doubled and the number of blue marbles stays the same, what fraction of the marbles will be red?
 (a) $\frac{2}{5}$ (b) $\frac{3}{5}$ (c) $\frac{3}{7}$ (d) $\frac{4}{7}$
34. A bug crawls along a number line, starting at -2 It crawls to -6, Turns around and crawls to 5. How many units does the bug crawl altogether?
 (a) 9 (b) 11 (c) 15 (d) 6
35. Let angle ABC- 24° and angle ABD- 20° What is the smallest possible degree measure for angle CBD?
 (a) 0 (b) 2 (c) 4 (d) 12
36. $2^{73}-2^{72}-2^{71}$ is the same as
 (a) 269 (b) 271 (c) 270 (d) 272
37. For any rational number a,b,c which among the following is false.
 (a) $axb=bx a$ (b) $a \times (b-c)=a \times b-axc$
 (c) $a \times (b \div c)=a \times b \div a \times c$ (d) $a \times (b+c)-axb+ax c$
38. For a polyhedron, if 'F' stands for number of faces, V stands for number of vertices and E stands for number of edges, then which of the following relationships is named as Euler's formula ?
 (a) $F + V = E + 2$ (b) $F + E = V + 2$
 (c) $V + E = F + 2$ (d) $F + V = E - 2$.
39. The heights of two right circular cylinders are the same. Their volumes are respectively $16\pi \text{ m}^3$ and $81\pi \text{ m}^3$. The ratio of their base radii is
 (a) 16 : 81 (b) 4 : 9 (c) 2 : 3 (d) 9 : 4.
40. Mr Sharma deposited 256000 his account. Two days later, he withdraw $\frac{2}{5}$ of the amount and $\frac{3}{4}$ of the remaining amount on the next day. Find the amount left in his account.
 (a) 24520 (b) 38400 (c) 14820 (d) 14680

Subject: English

Q1. The moon's role in causing tides is much more high and important than that of the sun. The reason is that the moon enjoys proximity to the earth than the sun as such its force of attraction is stronger than that of the sun in attracting the surface water. Tides are of immense importance. In trade, navigation and fishing, tides are very useful. During the high tide, the water depth near the coast goes up and helps big ships to reach the ports. Kandla port in Gujarat and Diamond Harbour in West Bengal owe very existence to the tides only.

Tides also keep the harbours clear of refuse and mud brought down by rivers and thus they do not allow the harbours to be silted. Commonly, the tidal rivers are navigable. For the purpose of generating electricity, tidal waves are harnessed. Tides do not allow the sea water to be frozen by keeping the sea water in motion. Tides are use by fisherman for sailing into the sea and returning to the harbor. In countries like Canada, U.K., France and Japan, tidal power stations are set up.

1. Why does the moon play a greater role than sun in causing tides?

- (a) The moon is closer to the earth as compared to the sun.
 (b) The moon has greater gravitational pull.

- (c) The moon shines in the night.
 (d) None of these.
2. How are tides useful for the economy of the country?
 (a) Tides bring shipwreck from under the sea with them.
 (b) During high tides, big ships can reach the ports thus opening new vistas for business.
 (c) Tides destroy enemies of the country.
 (d) None of these.
3. How are tides useful in cold countries?
 (a) Bring fish for eating. (b) Bring water for drinking.
 (c) Don't allow sea water to be frozen. (d) Keep the port silted.
4. How can tides solve the power problem of the world?
 (a) Electricity is being produced through tidal waves.
 (b) Tidal waves keep the steamers in motion.
 (c) Tidal waves melt the ice and save power.
 (d) None of these.
5. Which word in the passage mean 'to bring under control'?
 (a) Proximity (b) Immense (c) Silted (d) Harness

QII. Replace the following underlined phrases with appropriate collective nouns:

6. The people who work in this company are all trained people.
 (a) staff of this company (b) team of this company
 (c) organization of this company (d) crew of this company
7. The final verdict was taken by a number of judges.
 (a) penal (b) Troop (c) Pack (d) Team

QIII. Fill in the blanks with the correct auxiliary verbs from the given options

8. His eyesight is weak. He -----to wear glasses.
 (a) had (b) does (c) did (d) has
9. You ----- be serious about swimming outdoors in winter.
 (a) doesn't (b) are (c) will (d) can't

QIV. Choose the correct synonym of the given word

10. Adjourn
 (a) Decide (b) Hasten (c) Postpone. (d) Continue
11. Admonish
 (a) Applaud (b) Pacify. (c) Warn. (d) Appeal

QV. Choose the correct antonym of the given word

12. Abandon
 (a) Leave (b) Resign (c) Renounce (d) Adopt
13. Ardent
 (a) Keen (b) Loyal (c) Dull (d) Intense

QVI. Choose the word which means differently from the following group of words.

14. Pal, Comrade, Buddy, Rival, Companion, Fellow

- (a) Buddy (b) Pal (c) Rival (d) Fellow

15. Examine, Overlook, Probe, Explore, Research, Criticise

- (a) Probe (b) Overlook (c) Criticise (d) Explore

QVII. Choose the most appropriate one word substitution for the given description.

16. Persons living at the same time-

- (a) Colleagues (b) Contemporaries (c) Ancestors (d) Forefathers

17. One who eats everything

- (a) Omniscient (b) Omnipotent (c) Omnivorous (d) Pirate

QVIII. Replace the underlined adverbs in the following sentences with their opposites

18. Reeta handled the glass vase roughly.

- (a) Hardly (b) Gently (c) Cruelly (d) Strongly

19. How can I put up with a person who always speak foolishly?

- (a) Quickly (b) Warmly (c) Wisely (d) Mechanically

QIX. Choose the appropriate word to follow the given adjective

20. Dimpled

- (a) Neck (b) Skin (c) Cheek (d) Nose

21. Bulging

- (a) Eyes (b) Nose (c) Hair (d) None of these.

QX. Complete the following sentences using an appropriate verb form.

22. He before I his place.

- (a) left, reached (b) had left, reached
(c) have left, reached (d) left, had reached

23. The young widow always white clothes.

- (a) wear (b) wears (c) was wearing (d) would wear

24. I to quit my job.

- (a) decided (b) have decided (c) had decided (d) was deciding

25. I never forget what you just me.

- (a) will, told (b) would, told (c) had, told (d) will, tell

26. I him and he at once.

- (a) called, came (b) would call, will come (c) call, comes (d) have called, came

27. When we the station, the train already left.

- (a) would reach, had (b) reached, had (c) reach, had (d) reach, would

28. The tomatoes Picked when they were ripe.

- (a) are (b) were (c) were being (d) are being

29. The National Anthem after the performance.

- (a) is sung (b) was sung (c) would sing (d) had sung

30. The criminals Arrested.

- (a) is (b) have been (c) were been (d) had been