

GENERAL INSTRUCTIONS:

- The question paper comprises of three sections –A,B and C.
- All questions are compulsory.
- All questions in Section A are one mark questions comprising MCQ, VSA type and assertion-reason type questions.
- All questions in section B are three mark and are short answer type questions.
- All questions in section C are five Mark and are long answer type Questions
- This question paper consists of a total of 17 questions.

SECTION-A

1. Answer the following questions: 10x1=10  
 For question numbers 1 and 2, two statements are given –one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and(d) as given below:

1. Assertion (A): A geneticist crossed two pea plants and got 50% tall and 50% dwarf in the progeny.

Reason (R): One plant was heterozygous tall and the other was dwarf.

- a) Both A and R are true and R is correct explanation of the assertion.  
 b)Both A and R are true but R is not the correct explanation of the assertion.  
 c) A is true but R is false                      d) A is false but R is true

2. Assertion (A): Digestion breaks large complex molecules to simple smaller molecules which can be easily absorbed

Reason (R): Digestion is necessary for the absorption of all molecules

- a) Both A and R are true and R is correct explanation of the Assertion.  
 b)Both A and R are true but R is not the correct explanation of the Assertion.  
 c)A is true but R is false                      d) A is false but R is true

3. Replacing of plastic cups by the paper cups for selling tea on train is preferred because-----

- a)Paper cups are more aesthetic  
 b)Paper cups are more hygienic

- c)Paper cups are cheaper  
 d) Paper cups are biodegradable and eco-friendly.

4. The presence of homologous organs in different animals indicates.

- a)Independent ancestry                      b)Common ancestry  
 c)Different ancestry                      d)Hierarchy

5. Diffusion is insufficient to meet ----- requirement of multicellular organisms like humans.

6. Without the ----- in a food web many chemicals would not be recycled.

7. Question numbers 7.1 and 7.2 are based on two tables given below and the related studied concepts. Analyse these tables and answer the questions that follow:

Table A: Amount of air pollutants (Microgram per cubic metre)

Air Pollutants	Microgram per cubic metre
SO <sub>2</sub>	50
NO <sub>2</sub>	40
PM10	60

Table B: Status ambient air quality in 5 metropolitan cities of India

S.NO	Name of the city	State	2011		
			SO <sub>2</sub>	NO <sub>2</sub>	PM10
1	Bangalore	Karnataka	14	28	91
2	Delhi	U.T	6	61	777
3	Gwalior	M.P	12	20	311
4	Chennai	Tamilnadu	9	24	92
5	Agra	U.P	3	23	155

7.1 Refer to Table B showing the status of ambient air quality in five metropolitan cities of India. Which city has the maximum risks of respiratory diseases?

7.2 Taj Mahal in Agra is said to be suffering from ‘Marble Cancer’. Which of the following statements correctly defines marble cancer?

- a) Formation of fungus at Taj Mahal  
 b)Corrosion of marble by acid rain  
 c)Formation of perforations in Taj Mahal  
 d) Yellowing of marble by soot particles.

8. Which type of circulatory system is present in Humans?

9. Which reproduction causes greater diversity?

a) Heredity and Variation

b) Dominant and recessive traits

c) Natural and artificial selection

#### SECTION-B

II. Answer the following questions in short:

5x3=15

10. a) Why do aquatic animals have a faster rate of breathing as compared to terrestrial animals?

b) Name the enzyme present in saliva and state its function.

(OR)

a) Why do ventricles have thicker, muscular walls than atrium?

b) What are peristaltic movements?

c) 'Stomata remain closed in desert plants during day time?

How do they do photosynthesis?

11. Which process in plants is responsible for clouds formation and precipitation?

Define the process. How is this process important for the plants.

12. An angiosperm plant having red coloured flowers when crossed with the other having the same colour produced 40 progenies, out of which 30 plants were with red coloured flowers, 10 plants were with white coloured flowers find out:

a) What is the possible genotype of parent plants?

b) Which trait is dominant and recessive?

c) What is this cross called as and what is its phenotypic ratio?

13. "Energy flow in a food chain is unidirectional". Justify this statement. Explain how the pesticides enter a food chain and subsequently get into our body.

14. a) "Chromosomes are heredity carriers". Why do we say so?

b) Which vital function is not controlled by autosomes?

#### SECTION-C

III. Answer the following questions in detail:

3x5=15

15. i) Draw a sectional view of the human heart and label on it Aorta, Pulmonary arteries, Vena cava, left ventricle

ii) Why is double circulation of blood necessary in human beings?

(OR)

i) Explain the process of nutrition in Amoeba with suitable diagram.

ii) During one cycle how many times blood goes to heart of fish and why?

16. Give differences between:

17. Some wastes in nature persist for a long time which others get decomposed in a shorter period. Explain their difference. State two ways in which they affect the environment.

19.12.2019 EVERWIN VIDHYASHRAM (SET B)  
STD: X (Exc,Blis)(FN) YA - CRP Time:1½hrs  
Chemistry I Marks:40

I. In the following questions, a statement of Assertion (A) is followed by a statement of reason (R). Mark the correct choice as: 2x1=2

- a) Both [A] and [R] are true and [R] is the correct explanation of [A]
- b) Both [A] and [R] are true but [R] is not the correct explanation of [A]
- c) [A] is true but [R] is false
- d) Both [A] and [R] are false

1. Assertion [A]: Brown fumes are produced when lead nitrate is heated.

Reason [R]: On heating, nitrogen dioxide gas is produced as a byproduct due to the decomposition of lead nitrate.

2. Assertion [A]:  $\text{H}_2\text{CO}_3$  is a strong acid.

Reason [R]: A strong acid dissociates completely in water.

II. Fill in the blanks: 2x1=2

3. Photosynthesis is a/an ----- reaction.

4. Salts of strong base and weak acid are ----- with  $\text{p}^{\text{H}}$  value ---- than 7.

III. Multiple choice questions: 2x1=2

5. Which of the following are present in a dilute aqueous solution of hydrochloric acid?

- a)  $\text{H}_3\text{O}^+ + \text{Cl}^-$
- b)  $\text{H}_3\text{O}^+ + \text{OH}^-$
- c)  $\text{Cl}^- + \text{OH}^-$
- d) Unionised HCl

6. What happens when copper rod is dipped in iron sulphate solution?

- a) Copper displaces iron
- b) Blue colour of copper sulphate solution is obtained
- c) No reaction takes place
- d) Reaction is exothermic

IV. Answer questions 7(a) – 7(b) on the basis of your understanding the following paragraph and the related studied concepts. 2x1=2

Ethanol or ethyl alcohol is an important organic compound.

It burns in air to form carbon dioxide and water. It is used in industries, hospitals and homes. Ethanol is supplied to hospitals and research laboratories without charging different taxes. Therefore, to prevent its misuse for drinking it is mixed with some poisonous chemicals.

7(a). Ethanol has no effect on litmus solutions. Why?

7(b). Which substance is added to ethanol to make it unfit for drinking?

V. Answer in one sentence: 2x1=2

8. State one industrial application of reduction process.

9. Dry HCl gas does not change the colour of dry blue litmus. Give reason to justify it.

VI. Answer in brief: 5x3=15

10. Write balanced chemical equations for the following reactions:

- a) Hydrogen Sulphide burns in air to give water and sulphur dioxide
- b) Magnesium ribbon burns in oxygen to give magnesium oxide.
- c) Hydrogen gas combines with nitrogen to form ammonia.

11. Explain the following terms with examples for each.

- a) Oxidation
- b) Reduction

12. How is baking soda prepared? What happens when it is heated while cooking?

Write two uses of baking soda.

13. Write the chemical equations for the reaction of Acid with metal carbonate and metal hydrogen carbonate.

14. (a) What are detergents? Why are detergents preferred over soaps for washing clothes in hard water? Explain.

(OR)

b) What happens when ethanol reacts with:

- i) Sodium metal
- ii) Ethanoic acid in the presence of Conc.  $\text{H}_2\text{SO}_4$

VII. Answer in detail: 3x5=15

15. Define chemical reaction. State four observations which help to determine whether a chemical reaction has taken place or not. Write one example of each observation with a balanced chemical equation.

16. a) What is the chlor-alkali process? Write a balanced chemical equation for the reaction involved in this process, to justify your answer.

b) How is baking powder prepared from baking soda? Write its use.

17. a) i) With the help of a neat labeled diagram of soap micelles. Explain the cleansing action of soap.

ii) What are soaps? Why do soaps form scum with hard water?

(OR)

b) Differentiate Ethanol and Ethanoic acid based on their physical (3 points) and Chemical (2 points) properties.

I. கீழ்க்காணும் செய்யுள்பாடல் வினாக்களுக்கு விடையளிக்கவும்:  
 கழிந்த பெரும் கேள்வியினான் எனக் கேட்டு முழுது உணர்ந்த கபிலன்  
 தன்பால்  
 பொழிந்த பெரும் காதல் மிகு கேண்மையினான் இடைக்காட்டுப் புலவன்  
 தெனசொல்

வினாக்கள்: 3x1=3

1. திருவிளையாடற் புராணத்தில் நும் பாடப்பகுதியில் உள்ள காண்டம் -----  
 அ)திருஆலவாய்க்காண்டம் ஆ)மதுரைக்காண்டம்  
 இ)கூடற்காண்டம் ஈ)ஆரண்யக்காண்டம்
2. இறைவன் ----- விட்டு நீங்கிவிட திருஆலவாயில் சென்று தங்கினார்.  
 அ)மதுரையை ஆ)சோலையை  
 இ)நந்தவனத்தை ஈ)கடம்பவனக் கோவிலை
3. இப்பாடலின் ஆசிரியர் -----  
 அ)கு.ப.ராஜகோபாலன் ஆ)வீரமா முனிவர்  
 இ)பரஞ்சோதி முனிவர் ஈ)இளங்கோவடிகள்

II. கடிதம் எழுதுக: 1x5=5

உணவு விடுதியொன்றில் வழங்கப்பட்ட உணவு தரமற்றதாகவும் விலை  
 கூடுதலாகவும் இருந்தது குறித்து உணவுப் பாதுகாப்பு ஆணையருக்குக் கடிதம்  
 எழுதுக.

(உணவு முகவரி: கபிலன் /கவிதா, பாரதியார் தெரு, மதுரை-8)

III. கீழ்க்காணும் இலக்கண வினாக்களுக்கு விடையளிக்கவும்: 7x1=7

1. பருப்பு உள்ளதா? என வணிகரிடம் வினவுவது -----  
 அ)கொளல் வினா ஆ) கொடை வினா  
 இ)ஏவல் வினா ஈ)ஐய வினா
2. அஃறிணை ----- பிரிவுகளை உடையது.  
 அ)மூன்று ஆ)இரண்டு இ)நான்கு ஈ)ஐந்து
3. உடன்பட்டுக் கூறும் விடை ---- எனப்படும்.  
 அ)குறிப்பு விடை ஆ)நேர்விடை  
 இ)உறுவது கூறல் விடை ஈ)வினா எதிர் வினாதல் விடை
4. இலக்கண முறையின்றிப் பேசுவதும் எழுதுவதும் -----எனப்படும்.  
 அ)வழா நிலை ஆ)வழுவமைதி  
 இ)வழு ஈ)இவற்றில் எதுவுமில்லை
5. வினாவிற்கு விடையாக ஏற்கெனவே நேர்ந்ததைத் கூறுவது ----- எனப்படும்  
 அ)இனமொழி விடை ஆ)ஏவல் விடை  
 இ)உற்றது உரைத்தல் விடை ஈ)சுட்டு விடை
6. ஒரு செய்யுளில் சொற்கள் முறை பிறழாமல் வரிசையாக அமைந்து வருவது-----  
 எனப்படும்.  
 அ)எதிர்நிரல் நிறைப் பொருள் கோள்  
 ஆ)ஆற்றுநீர்ப் பொருள்கோள்  
 இ)முறைநிரல் நிறைப் பொருள்கோள்  
 ஈ)நிரல்நிறைப் பொருள்கோள்

7. வெளிப்படை விடை ----- வகைப்படும்.

அ)மூன்று ஆ)நான்கு இ)ஐந்து ஈ)ஆறு  
 IV. கீழ்க்காணும் செய்யுள் வினாக்களுள் எவையேனும் இரண்டனுக்கு மட்டும்  
 விடையளிக்கவும்: 2x4=8

1. இறைவன், புலவர் இடைக்காடன் குரலுக்குச் செவி சாய்த்த நிகழ்வை  
 நயத்துடன் எழுதுக.
  2. குமரகுருபரர் பிள்ளைத்தமிழில் பயன்படுத்திய நயத்தை விளக்குக.
  3. அ) கம்பராமாயணம் - நூற்குறிப்பு எழுதுக.  
 ஆ)கம்பராமாயணத்தின் தனிச்சிறப்புகள் யாவை?
- V. கீழ்க்காணும் செய்யுள் வினாக்களுள் எவையேனும் இரண்டனுக்கு மட்டும்  
 விடையளிக்கவும்: 2x5=10
1. தெருக்கூத்து கலையைப் பற்றி விளக்கிக் கூறுக.
  2. இன்றைய அறிவியல் கண்டுபிடிப்புகள் மனிதனை மேம்படுத்துகின்றனவா  
 என்பது குறித்த சிந்தனைகளை முன் வைத்து எழுதுக.
  3. நெகிழிப் பைகளின் தீமையைக் கூறும் பொம்மலாட்டம் உங்கள் பள்ளியின்  
 ஆண்டு விழாவில் நிகழ்த்தப்படுகிறது. அதற்கு பாராட்டுரை ஒன்றினை எழுதுக.

VI. நிரப்புக: 4x½=2

1. ஆள்வினையும் ஆன்ற ----- மெனவிரண்டின்  
 ----- நீளும் குடி.
2. இன்மையின் ----- தியாதெனின் இன்மையின்  
 ----- இன்னா தது.

VII. துணைப்பாடம் (ஏதேனும் ஒன்று) 1x5=5

1. புதிய நம்பிக்கை
2. பாய்ச்சல்

19.12.2019

EVERWIN VIDHYASHRAM

(GROUP A)

STD: X (FN)

YA - CRP

Time:1hr

MATHS

Marks:25

I. Answer the following:

5x5=25

1. Show that  $5\sqrt{6}$  is an irrational number and also prove that  $\sqrt{3}$  is an irrational number.
2. If the HCF of 657 and 963 is expressible in the form of  $657x + 963y$ , find the value of  $x$ .
3. Speed of a boat in still water is 15Km/ hour. It goes 30 Km upstream and returns back at the same point in 4 hours 30 minutes. Find the speed of the stream.
4. The co-ordinates of vertices of  $\Delta ABC$  are  $A(0,0)$ ,  $B(0,2)$  and  $C(2,0)$ . Prove that  $\Delta ABC$  is an isosceles triangle. Also find its area.
5. The sum of squares of two consecutive multiples of 7 is 637. Find the multiples.

General Instructions

- i) The question paper has 4 sections A,B,C,D
- ii) Question No: 1-16 are ½ mark objective type questions
- iii) Question No: 7-24 are 2 ½ mark questions. Answers should not exceed 80 words each.
- iv) Question No: 25-27 are 3 mark questions. Answers should not exceed 100 words each.
- v) Question no: 28 is a map question. Attach the map within the answer sheets.
- vi) Internal choice questions provided.

Section-A

I) Match The Following:

- |                       |                        |
|-----------------------|------------------------|
| 1. Column A           | Column B               |
| a) Puga valley        | 1. Laterite soil       |
| b) Uttarkhand         | 2. Earth summit        |
| c) Brazil             | 3. Geothermal energy   |
| d) Kerala             | 4. Terrace cultivation |
| 2. Column A           | Column B               |
| a) Leguminous crop    | 1. Pulses              |
| b) Gram               | 2. Rabi crop           |
| c) KCC                | 3. 3 crops of paddy    |
| d) Aus, Aman and Boro | 4. Government scheme   |

II) True or False

3. Kharif crop require temperature between 21<sup>o</sup>c to 27<sup>o</sup>c
4. Palam is the name of the Delhi International Airport
- 5) Judicious use of resources is called the development of resources

III) Fill in the blanks

6. \_\_\_\_\_ aimed at achieving the global sustainable development.
7. \_\_\_\_\_ is a name given to "slash and burn".
8. With the development in \_\_\_\_\_ and \_\_\_\_\_ the area of influence of trade and transport expanded far and wide.

IV) Multiple Choice Questions

9. Countries like Nepal and Bhutan are called
  - a) Coastal countries
  - b) Landlocked countries
  - c) Gulf countries
  - d) None of the above

10. Which one of the following describes a system of agriculture where a single crop is grown in large area?

- a) Shifting agriculture
- b) Plantation agriculture
- c) Horticulture
- d) Intensive agriculture

11. Which one of the following terms is used to describe trade between two or more countries?

- a) Internal trade
  - b) International trade
  - c) External trade
  - d) Local trade
- V) Very short answers

12. Why is an efficient means of transport considered a pre-requisite for fast development?

13. Why is India called an agrarian country?

14. Why is humus content in laterite soil low?

15. Which institutional reforms were introduced for farmers?

16. Handling of imports and exports on a large scale is done conventionally from the Kandla port. Why?

Section-B

17. What are the problems faced by the Indian Railways? (OR)

Give three advantages of personal communications

18. What do you understand by "Bhutan" and "Gramden"?

19. Distinguish between Khadar and Bangar? (OR)

Which resources are termed as "International resources"?

20. What has contributed to the socio-economic progress in India?

21. What are the main characteristics of commercial farming? (OR)

Write the changes in India agriculture after the green revolution.

22. Examine the major problem caused due to indiscriminate use of natural resources.

23. Give the characteristics of a crop. Use both as food and fodder (OR)

How can you say that India is the largest producer as millets as the consumer of pulses in the world?

24. Explain the major problems faced by road transport in India.

Section-C

25. "Transport routes are called the basic arteries of our economy" support the statement with examples.

26. "Irrigation has changed the cropping pattern of many regions in India" Analyse the statement. (OR)

Name the two most important cereal crops in India. Describe the conditions required to grow these two crops.

27. Classify resources in the basis of development with examples.

Section-D

28. Mark the following on the given political map of India.

- i) An area where black soil is found
  - ii) A major rice producing state
  - iii) A major sugarcane producing state
  - iv) The airport at Hyderabad (with name)
- V) Kandla sea port  
vi) Hyderabad Software Technology

I. In the following questions, a statement of Assertion[A] is followed by a statement of reason [R]. Mark the correct choice as

a)Both [A] and [R] are true and [R] is the correct explanation of [A]

b)Both [A] and [R] are true but [R] is not the correct

explanation of [A]

c)[A] is true but [R] is false d)[A] is false but [R] is true

e)Both [A] and [R] are false.

2x1=2

1. [A] Aluminium articles are anodised to protect them from corrosion.

[R] The layer of aluminium oxide on the surface of aluminium articles is made thicker by the process of electrolysis to give the articles more protection from corrosion.

2. [A] Valency of an element is determined by the number of valence electrons present in the atom of the element.

[R] The combining capacity of the atom of an element with the atoms of other elements in order to acquire eight electrons is called its valency.

II. Fill in the blanks:

2x1=2

3. The number of carbon atoms present in a Buckminster fullerene is -----

4. If the sample of the ore, gives a colourless and odourless gas which turns lime water milky, it is a ----- ore.

III. Multiple Choice Questions:

2x1=2

5. Which of the following is an Amphoteric oxide.

a)CuO b)Mgo c)ZnO d)CaO.

6. If an alkane has one carbon atom, n=1. Therefore its molecular formula will be -----

a)C<sub>2</sub>H<sub>6</sub> b)CH<sub>4</sub> c)C<sub>3</sub>H<sub>8</sub> d)C<sub>4</sub>H<sub>10</sub>

IV. Answer questions 7a and 7b on the basis of your understanding the following paragraph and the related studied concepts.

2x1=2

As per the recommendations of IUPAC, the vertical rows (or) groups are numbered 1 to 18 in the periodic table. The old notation of numbering groups (or) vertical rows with Roman numerals (I,II,III etc) has been replaced with a new notation of numbering with Arabic numerals (1,2,3 ect..)

7. a) How many periods and groups are present in modern periodic table?

b) Why the position of hydrogen remains controversial?

V. Answer in one word (Or) sentence:

2x1=2

8. Define metallurgy.

9. Draw the structure of cyclopentane

VI. Answer in Brief:

5x3=15

10. What are isomers? Write the possible isomers of pentane.

11. Identify the functional group and name the compound

a)CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>COCH<sub>3</sub>. b)CH<sub>3</sub>-CH<sub>2</sub>-Br c)CH<sub>3</sub>CH<sub>2</sub>CHO

12. a) Explain the thermit reaction with chemical equations involved.

b) How would you identify that the given ore is a carbonate (or) a sulphide ore?

13. a) How does the tendency to lose electrons vary down the group 17?

Give reasons (Modern Periodic Table)

b) Why Mendeleev did not mention about inert gases?

(OR)

What are the achievements and limitations of Mendeleev's periodic table?

14. Illustrate Ionic Bond by taking Magnesium Chloride as an example.

VI. Answer in Detail:

3x5=15

15.a) Explain the extraction of Mercury from its Sulphide ore.

b) Explain the electrolytic refining of copper with neat sketch.

16. Explain the trends in the properties of elements across the period and down the group on the basis of

a)Valence Electrons b)Atomic Size

c)Metallic and Non Metallic Character.

17. a)Why carbon is versatile in nature?

b) Give the structural differences between saturated and unsaturated hydrocarbons with one example each.

c) What is a functional group? Give an example.

(OR)

a) A cyclic compound 'X' has molecular formula C<sub>6</sub>H<sub>6</sub>. It is unsaturated and burns with sooty flame. Identify 'X' and write its structural formula. Will it decolourise bromine water (or) not and why?

b)Give names of an alcohol containing 5 carbon atoms and an acid with 4 carbon atoms.

19.12.2019  
STD: X (Awe,Cap)(AN)

EVERWIN VIDHYASHRAM  
YA - CRP  
Biology -II

(SET B)  
Time:1½hrs  
Marks:40

GENERAL INSTRUCTIONS:

1. The question paper comprises of three sections –A,B and C.
2. All questions are compulsory.
3. All questions in Section A are one mark questions comprising MCQ, VSA type and assertion-reason type questions.
4. All questions in section B are three mark and are short answer type questions.
5. All questions in section C are five Mark and are long answer type Questions
6. This question paper consists of a total of 17 questions.

SECTION-A

I. Answer the following questions: 1x10=10

For question number 1 and 2, two statements are given one labelled Assertion(A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

1. Assertion (A): Seismonastic movement shown by Mimosa pudica plant.

Reason (R): It is due to turgidity of cells of pulvinus.

- a)Both A and R are true and R is correct explanation of the assertion.
- b)Both A and R are true but R is not the correct explanation of the assertion.
- c)A is true but R is false.
- d) A is false but R is true.

2. Assertion (A): Sexual reproduction increases genetic diversities and plays a role in origin of new species.

Reason (R): Sexual reproduction involves formation of gametes and fusion of gametes.

- a) Both A and R are true and R is correct explanation of the assertion.
- b)Both A and R are true but R is not the correct explanation of the assertion.
- c)A is true but R is false.
- d) A is false but R is true.

3. Like animals, plants produce

- a)Many more sperms than eggs.
- b)A few more sperms than eggs
- c)Equal numbers of sperms and eggs
- d)Fewer sperms than eggs.

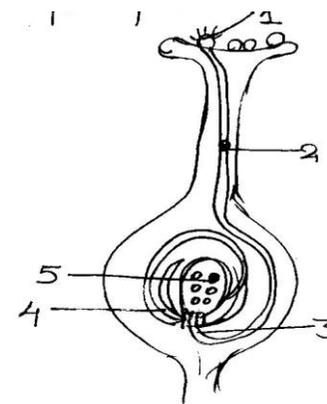
4. Which is preserved in National Park?

- a)Flora
- b)Fauna
- c)Both a and b
- d) None of these

5. ----- sacrificed her life along with 363 others for protection of 'Khejri' trees.

6. ----- is the periodic discharge of blood, mucous, uterine mucosa pieces etc. from uterus.

7. Question numbers 7.1 and 7.2 are based on the diagram below which shows the cross-section through the carpel of flower just before fertilisation.



SECTION-C

7.1. Where will the male and female gametes respectively be just before fertilisation?

7.2. Fertilization occurs in plants in-----.

8. What is cross pollination?

9. What is sustainable development?

SECTION-B

II. Answer the following questions in short: 5x3=15

10. What is Chipko Movement? How did this movement ultimately benefit the local population and the environment?

11. What is 'Phototropism'? How does it occur in plants? Describe an activity to demonstrate phototropism.

12. i) Differentiate between sensory neurons and motor neurons.

ii) How is brain protected in our body?

iii) Name the part of the brain responsible for precision of voluntary actions and maintaining body posture and balance of the body.

13. List any four methods of contraception used by humans. How does their use have a direct effect on the health and prosperity of a family?

14. a) Trace the path of sperms from where they are produced in human body to the exterior.

b) Write the functions of secretions of prostate gland and seminal vesicles in humans.

(OR)

What is placenta? Describe its structure. Explain its function in human female.

III. Answer the following questions in detail: 3x5=15

15. what happens when-----

a) Testosterone is released in the male reproductive system.

b) Pollen grains fall on the stigma of flower

c) Egg fuses with the sperm cell

d) A planaria is cut into three different pieces.

e) Buds are formed on the notches of leaf of the Bryophyllum.

16. a) Name two hormones secreted by pancreas. Write one function of each hormone.

b) How does our body respond when adrenaline is secreted into the blood?

c) Cite an example to explain the feedback mechanism for regulation of hormonal secretion.

(OR)

a) Draw the structure of a neuron and label the following on it:

Nucleus, Dendrite, Cell body and Axon.

b) Name the part of neuron

i) Where information is acquired.

ii) Through which information travels as an electrical impulse.

17. a) Mention any two advantages of constructing dams.

b) Name a dam which was a subject of much opposition from locals as well as NGO's

c) Mention any three problems which may arise due to construction of large dams.

19.12.2019 EVERWIN VIDHYASHRAM (SET B)  
STD: X (Cute,Dazz)(AN) YA - CRP Time:1½hrs  
Tamil-II Marks:40

I. கீழ்க்காணும் செய்யுள் வினாக்களுக்கு விடையளிக்கவும்: 3x1=3

“அருளைப் பெருக்கி அறிவைத் திருத்தி  
மருளை அகற்றி மதிக்கும் தெருளை”

வினாக்கள்:

1. இவ்வடிகளில் குறிப்பிடப்படுவது எது?

அ)தமிழ் ஆ)அறிவியல் இ)கல்வி ஈ)இலக்கியம்

2. “சதாவதானி” என்று பாராட்டுப் பெற்றவர் -----

அ)செய்குதம்பிப் பாவலர் ஆ)பரஞ்சோதி முனிவர்  
இ)மோசிகீர்னார் ஈ)குசேல பாண்டியன்

3. “போற்று” - இலக்கணக் குறிப்புத் தருக.

அ)பெயரெச்சம் ஆ)வினையெச்சம்  
இ)பண்புத்தொகை ஈ)வேற்றுமைத் தொகை

II. கீழ்க்காணும் இலக்கண வினாக்களுக்கு விடையளிக்கவும்: 7x1=7

1. “எற்பாடு” பிரிக்கும் முறை -----

அ)எல் +பாடு ஆ)எள் +பாடு  
இ)எற்+பாடு ஈ)ஏர்ப்+பாடு

2. ஆனி, ஆடி ----- காலத்திற்கான மாதங்கள்.

அ)கார் ஆ)குளிர் இ)முது வேனிற் ஈ)இளவேனிற்

3. குறிஞ்சித் திணைக்குரிய சிறுபொழுது -----

அ)மாலை ஆ)எற்பாடு இ)யாமம் ஈ)வைகறை

4. பேரூர், மூதூர் என்பவை ----- நிலத்திற்குரிய ஊர்கள்.

அ)பாலை ஆ)நெய்தல் இ)பாலை ஈ)மருதம்

5. மருத நிலத்திற்குரிய உணவுப் பொருள்கள் -----

அ)வரகு, சாமை ஆ) செந்நெல், வெண்ணெல்  
இ)மலைநெல், தினை ஈ)தினை, தேன்

6. நிரை மேய்த்தல் ----- நிலத்திற்குரிய தொழில்

அ)குறிஞ்சி ஆ)முல்லை இ)மருதம் ஈ)நெய்தல்

7. இரவு 2 மணிமுதல் காலை 6 மணி வரை ----- ஆகும்.

அ)மாலை ஆ)யாமம் இ)வைகறை ஈ)எற்பாடு

III. கட்டுரை எழுதுக: 1x6=6

முன்னுரை - அடிப்படை போக்குவரத்து விதிகள் - சட்டத்தை மதித்தல் -

விபத்துகளைத் தடுத்தல் - முடிவுரை.

IV. கீழ்க்காணும் செய்யுள் வினாக்களுள் எவையேனும் இரண்டனுக்கு மட்டும்

விடையளிக்கவும்: 2x4=8

1.அ) பெருமாள் திருமொழி நூற்குறிப்பு வரைக.

ஆ) பெருமாள் திருமொழியில் குலசேகராழ்வார் கூறும் கருத்துகள் யாவை?

2. நவீன கவிதையில் வெளிப்படும் நுண்மை உள்ளம், பூத்தொடுக்கும் நாட்டுப்புறப் பாடலில் வெளிப்படுகிறது. ஒப்பிட்டு எழுதுக.

அ) செய்குதம்பிப் பாவலர் குறிப்பு வரைக.

ஆ)செய்குதம்பிப் பாவலரின் கல்வி பற்றிய கருத்தினை முழக்கத் தொடர்களாக்குக.

V. கீழ்க்காணும் உரைநடை வினாக்களுக்கு விடையளிக்கவும்: 2x4=8

1. மொழிப்பெயர்ப்பு கல்வியின் முக்கியத்துவத்தை விளக்குக.

2. மொழிப்பெயர்ப்பு கல்வியின் பயன்களை எழுதுக.

VI. நிரப்புக: 4x½=2

1. சொல்லப் பயன்படுவர் ----- கரும்பு போல்

----- பயன்படும் கீழ்

2. மக்களே ----- கயவர் அவரன்ன

----- யாம்கண்ட தில்.

VII. துணைப்பாடம்: 1x6=6

1. விண்ணைத் தாண்டிய தன்னம்பிக்கை.

19.12.2019

EVERWIN VIDHYASHRAM

(Group A)

STD: X(AN)

YA - CRP

Time:1hr

Maths -II

Marks:25

I. Answer the following:

5x5=25

1. If the 1<sup>st</sup> term of a series is 7 and 13<sup>th</sup> term is 35. Find the sum of 13 terms of the sequence.

2. If  $S_1, S_2, S_3$  be the sum of  $n, 2n, 3n$  terms respectively of an A.P. Prove that  $S_3 = 3(S_2 - S_1)$ .

3. Prove that  $\frac{\cos A}{1 + \tan A} - \frac{\sin A}{1 + \cot A} = \cos A - \sin A$ .

4.  $\frac{2\cos^2 60^\circ + 3\sec^2 30^\circ - 2\tan^2 45^\circ}{\sin^2 30^\circ + \cos^2 45^\circ}$

5. A box contains 20 cards from 1 to 20. A Card is drawn at random from the box.

Find the probability that the number on the drawn card is:

i) Divisible by 2 or 3.

ii) A prime number.

General Instructions:-

- i) The question paper is divided into three sections . section A, section –B Section –C
- ii) Marks are indicated against each question .
- iii) Question No:1 to 16 are objective type questions. Each questions carries ½ mark
- iv) Question No. 17 to 24½ are marks questions . Answer to these questions should not exceed 80 words each .
- v) Questions No: 25 to 27 are 3 mark questions. Answer to these questions should not exceed 100 words each .
- vi) Internal choice is provided. Attend any 1 question out of the given in each of the question
- vii) Ques No :28 map

Section –A 16x½=8

I Match the following in Column A with column B

- |                       |                        |
|-----------------------|------------------------|
| 1. Column - A         | Column – B             |
| a) Bauxite            | - Low grade brown coal |
| b) Bituminous         | - Aluminum             |
| c) Lignite            | - Steel                |
| d) Manganese          | - Commercial coal      |
| 2. Column - A         | Column – B             |
| a) Electronic capital | - Joint sector         |
| b) SAIL               | - Co-operative sector  |
| c) Sugar              | - Bengaluru            |
| d) Oil                | - Public sector        |

II. Fill in the blanks :-

3. In India , the Gulf of Khambhat the Gulf of Kunch and Gangetic delta provide ideal condition for utilizing \_\_\_\_\_ energy .
4. \_\_\_\_\_ mineral which is used to reduce cavities in teeth.

5. \_\_\_\_\_ plateau region in India has the maximum concentration of iron and steel industry in India .

III. State whether the given statement is True or False

6. India is the largest producer of Sponge Iron
7. The first textile mill was established in Bengaluru in India.
8. The toothbrush and tube containing paste are made up of plastic obtained from coal .

IV. Multiple choice question :-

9. Which one of the following industries uses limestone as a raw material ?  
a) Aluminum b) Cement c) Sugar d) Jute
10. Which is the largest wind farm cluster located in India?  
a) Andhra Pradesh b) Kerala c)Karnataka d) Tamil Nadu
11. Iron ore is exported to Japan and South Korea via which port?  
a) Chennai b) Vishakapatnam c) Haldia d) Mangaluru
12. Which of the following industries is not a heavy industry ?  
a) Cotton textile b) Cement c) Iron and Steel d) Ship building

Very short answer questions :-

13. Which material is found abundantly in the monazite sand ?
14. Which technique of cotton textile production came into use after the 18<sup>th</sup> century ?
15. What are placer deposit ?
16. On which basis are the small scale and large scale industries classified ?

Section –B 8x2½=20

17. a) Name the different types of pollution which lead to the degradation of the environment . (OR)
- b) Mention three main problems faced by the textile industry . what is the contribution of the textile industry to Indian economy?

18. What are software technology parks? State any two points of significance of Information Technology industry in India ?

19. a) Why do you think that Solar energy has a bright future in India?

(OR)

b) Differentiate between conventional and Non- conventional energy

20. Explain any three types of formation in which minerals occur.

21. a) How are integrated steel plants different from mini – steel plant?

What problems does the industry face?

(OR)

b) 'Agriculture and industry are complimentary to each other' ?Support the statement .

22. Describe any five factors responsible for the concentration of jute mills along the banks of Hugli river .

23. a) Explain the formation of Bauxite and name the metal obtained from it .

(OR)

b) How mining activities are injurious to the health of the miners and the environment ?

24. Classify Industries on the basics of capital investment, ownership, bulk and weight of raw material and finished products.

Section –c

3x3=9

25. Explain the pro-active adopted by the NTPC for preserving the natural environment and resources .

26. a) Highlight the importance of petroleum . Explain the occurrence of petroleum in India.

b) 'Energy saved is energy produced' Justify the statement .

27. Which is the most abundantly available fossil fuel in India? Write main features of each form

(OR)

b) What is the ideal location for setting up cement factory ? Write about the present position of cement industry in India? In which state does cement industry have strategically located plants?

Section –D

6x½=3

28. Mark the following places in Political Map of India

i) Hyderabad – Software technology park

ii) Durgapur – Iron and steel plant

iii) Surat – Cotton Textile Industry

iv) Narora – Nuclear power plant

v) A coal mine

vi) An oil field