

GENERAL INSTRUCTIONS

I. The question paper is divided into three sections :

SECTION A : Reading 20 MARKS

SECTION B : Writing and Grammar 30 MARKS

SECTION C : Literature 30 MARKS

II. All questions are compulsory.

III. You may attempt any section at a time.

IV. All questions of that particular section must be attempted in the correct order.

SECTION –A: READING (20 Marks)

1. Read the following passage and answers the questions that follow: (10 Marks)

SPEEDING UP INDIA’S JOURNEY BY BULLET TRAINS

By: Vijay Kumar Dutt, Indian Railways

High speed in Indian Railways is at present limited to 150 KMPH. However, in many other countries the speed of Railways is of the order of 200 KM per hour (KMPH). In France, Japan, Germany, China, Spain and South Korea high speed traction above 280 KMPH has been introduced. India and Japan have signed a memorandum of understanding (MoU) on 12th December, 2015 on cooperation and assistance in the Mumbai–Ahmedabad High Speed Rail (HSR) Project referred to by many as ‘Bullet Train Project’. Japan has offered an assistance of over Rs. 79,000 crore for the project. The loan is for a period of 50 years with a moratorium of 15 years, at an interest rate of 0.1 per cent.

The project is a 508-kilometre Railway line costing a total of Rs 97,636 crore, to be implemented in a period of seven years. It has been agreed that for the Mumbai – Ahemdabad HSR Project. Japan’s Shinkansen Technology, known for its speeds reliability and safety, will be adopted. Transfer of technology and “Make in India” will be essential part of this assistance package. Japan will also assist India in training of personnel for HSR.’ The two countries have also entered into two comprehensive technological cooperation agreements on 11th December 2015, for modernization and upgradation of Indian railways. These agreements have been signed during the official visit to India of His Excellency Mr. Shinzo Abe, the Prime Minister of Japan, during December 11-13, 2015.

- Name the countries where high speed traction above 280 KMPH has been introduced.
- Which project is known as “Bullet Train Project”?

- c) How much time and money is estimated for the Project?
- d) Which technology will be adopted for the Project?
- e) What agreements were signed during 11th December to 13th December 2015?
- f) What is Shinkansen Technology famous for?
- g) How has Japan assisted India financially for the Project?
- h) Find a word from the paragraph No. 2 which means 'Necessary'.
- i) Write full form of MOU.
- j) Japan has offered assistance to India for the project. How much?

2. Read the following passage carefully:

(10 Marks)

Heartbeats get abnormal after exercising, running, or after doing some strenuous work. There is nothing to worry about. But if your heart beats at irregular pace often, it is important to take note of it rather than ignore it as it can be a warning sign for a heart ailment called arrhythmia.

A normal heartbeats 60-100 times per minute while resting, but if it starts beating too slowly or too fast or if the heartbeat is irregular or premature, then that condition is known as arrhythmia. People tend to avoid it as a minor issue little knowing that it can lead to a stroke, fall due to drop of BP, loss of consciousness or even result in heart failure.

In a country where people take time to press the panic button when it comes to illnesses and medical problems, it is no surprise that a number of cases of irregular heartbeats go unnoticed for a long time. Some dismiss it as just a recurring symptom of body weakness; others may ignore it as a side-effect of blood pressure issues. The lack of awareness about arrhythmia means that not many people even take note of the symptoms.

When heartbeat is not too fast, it is called tachycardia. When the beats are slow, it is known as bradycardia. An irregular heartbeat may be due to atrial fibrillation.

The problem is that the symptoms are quite vague and can be associated with other minor medical problems in India, not many people are aware that there is a heart's electricity related disorder called arrhythmia. Often it is diagnosed when doctors are checking a patient for something else. More often, by the time it is diagnosed, major damage has already been caused.

It is important to take seriously any abnormality in the rhythm of our heart. There are many symptoms that can help predict arrhythmia like shortness of breath, weakness, early fatigue, palpitations, thumping in the chest, dizziness, chest pain, fainting and, of course, too fast or slow heartbeats. Ignoring these symptoms is inviting a major health trouble.

While some type of arrhythmias can be harmless, other can be life threatening as it may disrupt the normal functioning of the heart. In some cases, it can lead to heart failure too. The condition is treatable with the help of implantation of a pacemaker, devices or through burning the points from where irregular beats originate through radio-frequency heat waves. There are a few things in medicine where a permanent cure is possible. For certain arrhythmia this stands true with radio frequency ablation.

On the basis of your reading of the passage, answer the following questions:

- a) What is normal heartbeat?
- b) What do you call the situation when the heartbeat is too slow or fast?
- c) What happens when there is drop in BP?
- d) What results due to artiral fibrillation?
- e) When is arrhythmia detected?
- f) What danger is there when dizziness or chest pain is ignored?
- g) When does heartbeat abnormally?
- h) What is bradycardia?
- i) Write the synonym of FIRM. (para-6)
- j) Write the synonym of EXAMINE. (para-4)

SECTION B: WRITING AND GRAMMAR (30 Marks)

3. You are SaurabhSrivastava, a resident of Defence Colony Bagdogra, Siliguri. Your colony is facing the severe problem of supply of inadequate and poor quality of tap water. You decide to express your views and make the authorities aware of the situation by writing a letter to the Editor of The Siliguri Times, Siliguri. Write your letter in about 150 words. 8M
4. Complete the following story: (200 words) 10M
Anuj had gone on a holiday for one month and when he returns, he turns the key in the lock and opens the door. To his horror, he finds.....
5. Look at the words and phrases below. Rearrange them to form meaningful sentences. The first one has been done as an example. 4M

Example – Friends/I/ my/ were/ grandmother/ and/ good

My grandmother and I were good friends.

- A. left me/ my/ city/ parents/ her/ with/ they/ in /went/ live/ when/ to/ they
- B. morning / to/ wake/ used/ up/ the/ in/ she/ me.
- C. said / prayers /monotonously/ morning/ she/ her.
- D. listened/I / loved/I/ voice/ because/ her.

6. Fill in any four of the following blanks choosing the most appropriate option from the ones given below. Write the answers in your answer –sheet against the correct blank numbers. (4 marks)

- A. Sanitation and hygiene are also important (a) _____the well – being of society and biodiversity conservation .
- B. The government has (b) _____ a programme .
- C. It aims to develop (c) _____riverfronts .
- D. It will solve the problem of pollution (d) _____ the rivers .
- E. The need has been(e) _____for a long time.

- | | | | |
|-----------------------|------------------|------------------|-------------------|
| (a) (i) by | (ii) from | (iii) for | (iv) into |
| (b) (i) initiates | (ii) initiated | (iii) initiate | (iv) initiating |
| (c) (i) an | (ii) a | (iii) in | (iv) the |
| (d) (i) in | (ii) on | (iii) onto | (iv) by |
| (e) (i) feeling | (ii) feel | (iii) felt | (iv) have felt |

7. In the following passage one word has been omitted in each line .Write the missing word, of the given paragraph, along with the word that comes before and the word that comes after it in the space provided .

Most the people

areannoyed passwords.

Before word after

most of the

They have remember.

on any given day are

bound forget them

This creates difficulties the people.

(4 marks)

SECTION C LITERATURE (30 Marks)

8. Read the extract given below and answer the questions that follow. Write the answer in your answer sheet in one or two lines only. (1X4= marks)

A. "We do many things, sir," Nicola answered seriously. He glanced at us hopefully."

- What does the speaker mean by "We do many things, sir,?"
- Whom is he addressing to?
- Why was Nicola serious?
- Find the synonym of 'looked'.

OR

B. CAESAR: Cowards die many times before their deaths;
The valiant never taste of death but once.

Of all the wonders that I yet have heard.

It seems to me most strange that men should fear;

Seeing that death, a necessary end,

Will come when it will come.

- Whom does Caesar console and why?
- Which quality of the speaker is revealed here?
- Explain: Cowards die many times before their deaths.
- Give the synonym of 'Gallant'.

9. Answer any four of the following Questions in 30-40 words each (2x4 = 8 Marks)

- What were Cassius' reasons to kill Caesar?
- The frog claims to be the best trainer in the field of music? Do you agree? Justify your answer.
- Why was PatolBabu very conscious to know about his role in the movie?
- What were the hardships faced by Nicola and Jacopo?
- What does the poet do which he calls as 'paltry, vulgar and mean'? Why?

10. One feels other's pain only when one goes through it oneself. Explain the postmaster's change of heart and why it took place? 8M

Or

'Materialism makes way for shaky relationships'. Do you agree with the statement? Explain with reference to the play 'The Dear Departed'. 8M

11. Write the character sketch of 'Helen Keller'. 10M

Or

Helen had a great love for animals and birds. Elucidate with the help of examples. 10M

1. निम्नलिखित अपठित गद्यांश को ध्यानपूर्वक पढ़कर दिए गए प्रश्नों के उत्तर लिखिए-

हमारे देश के त्योहार चाहे धार्मिक दृष्टि से मनाए जा रहे हैं या नए वर्ष के आगमन के रूप में, फसल की कटाई एवं खलिहानों के भरने की खुशी में हों या महापुरुषों की याद में, सभी अपनी विशेषताओं एवं क्षेत्रीय प्रभाव से युक्त होने के साथ ही देश की राष्ट्रीय एवं सांस्कृतिक एकता और अखंडता को मजबूती प्रदान करते हैं। ये त्योहार जहाँ जनमानस में उल्लास, उमंग एवं खुशहाली भर देते हैं, वहीं हमारे अंदर देश-भक्ति एवं गौरव की भावना के साथ-साथ, विश्व-बंधुत्व एवं समन्वय की भावना भी बढ़ाते हैं। इनके द्वारा महापुरुषों के उपदेश हमें बार-बार इस बात की याद दिलाते हैं कि सद्विचार एवं सद्भावना द्वारा ही हम प्रगति की ओर बढ़ सकते हैं। इन त्योहारों के माध्यम से हमें यह भी शिक्षा मिलती है कि वास्तव में धर्मों का मूल लक्ष्य एक है, केवल उस लक्ष्य तक पहुँचने के तरीके अलग-अलग हैं।

1. गद्यांश में किस-किस प्रकार के त्योहारों का उल्लेख किया गया है? 2
2. त्योहारों की किन विशेषताओं को उकेरा गया है? 2
3. त्योहार जनमानस में किन भावनाओं को बढ़ाते हैं? 2
4. त्योहार हमें महापुरुषों की कौन सी प्रेरणा याद दिलाते है? 1
5. त्योहार धर्मों के बारे में क्या स्पष्ट करते हैं? 1

2. निम्नलिखित पद्यांश को ध्यानपूर्वक पढ़कर दिए गए प्रश्नों के उत्तर लिखिए-

अब भी कुछ लोगों के दिल में, नफरत अधिक, प्यार है कम
हम जब होंगे बड़े, घृणा का नाम मिटाकर लेंगे दम।
हिंसा के विषमय प्रवाह में, कब तक और बहेगा देश।
जब हम होंगे बड़े देखना, नहीं रहेगा यह परिवेश
भ्रष्टाचार जमाखोरी की आदत बहुत पुरानी है,
ये कुरीतियाँ मिटा हमें तो नई चेतना लानी है।
एक घरौंदा जैसा आखिर कितना और ढहेगा देश
जब हम होंगे बड़े देखना, ऐसा नहीं रहेगा देश।
इसकी बागडोर हाथों में, जरा हमारे आने दो,
थोड़ा-स, बस पाँव हमारा, जीवन में टिक जाने दो

1. बच्चे जब बड़े हो जाएँगे तो किस परिवेश को नहीं रहने देंगे? 2
2. कौन-सी कुरीतियाँ मिटाकर नई चेतना लाने की बात कही गई है? 2
3. बागडोर हाथ में आने का क्या अर्थ है? 1
4. घरौंदा शब्द का अर्थ लिखिए। 1
5. काव्यांश के लिए उचित शीर्षक लिखिए। 1

खंड-ख

3. निर्देशानुसार उत्तर दीजिए-

- क. मजदूर खूब मेहनत करता है, परंतु उसे लाभ नहीं मिलता।(वाक्य -भेद लिखिए) 1
 ख. बारिश हो रही थी, इसलिए कपड़े भीग गए।(सरल वाक्य में बदलिये) 1
 ग. मैंने एक बहुत बीमार आदमी को देखा।(मिश्र वाक्य में बदलिये) 1

4. निर्देशानुसार प्रश्नों के उत्तर दीजिए-

- क. कवि द्वारा गोष्ठी में कविता पढ़ी गई।(वाच्य का नाम बताइए) 1
 ख. पुराने गायक बहुत अच्छे गीत गाते थे।(कर्मवाच्य में बदलिये) 1
 ग. हम रातभर कैसे जागेंगे (भाववाच्य में बदलिये) 1
 घ. बंदर द्वारा पुस्तक फाड़ी गई।(कर्तृवाच्य में बदलिये) 1

5. रेखांकित पदों का पद परिचय दीजिए-

- क. मोहन घर चला गया। 1
 ख. शिकारी ने कबूतर पर चुपचाप निशाना साधा। 1
 ग. हमसे रातभर कैसे जागा जाएगा 1
 घ. आज समाज विभीषणों की कमी नहीं है। 1

6. निम्नलिखित पंक्तियों में रस पहचानिए-

- क. काबा फिरि कासी भया रामहिं भया रहीम।
 मोटा चून मैदा भया, बैठि कबीरा जीमि।। 1
 ख. अँखियाँ हरि दर्शन की भूखीं। 1
 ग. घृणा किस रस का स्थायी भाव है ? 1
 घ. वीर रस का एक उदाहरण लिखिए। 1

खंड-ग

7. निम्नलिखित पठित गद्यांश को ध्यानपूर्वक पढ़कर दिए गए प्रश्नों के उत्तर लिखिए-

लखनऊ स्टेशन पर खीरा बेचने वाले खीरे के इस्तेमाल का तरीका जानते हैं। ग्राहक के लिए जीरा-मिला नमक और पिंसी हुई लाल मिर्च की पुड़िया भी हाज़िर कर देते हैं। नवाब साहब ने बहुत करीने से खीरे की फाँकों पर जीरा-मिला नमक और लाल मिर्च की सुर्खी बुरक दी। उनकी प्रत्येक भाव-भंगिमा और जबड़ों के स्फुरण से स्पष्ट था कि उस प्रक्रिया में उनका मुख खीरे के रसास्वादन की कल्पना से प्लावित हो रहा था। हम कनखियों से देख रहे थे, मियाँ रईस बनते हैं, लेकिन लोगों की नज़रों से बच सकने के ख्याल में अपनी असलियत पर उतर आए हैं।

1. लखनऊ स्टेशन पर खीरा बेचने वाले इसके इस्तेमाल का कौन-सा तरीका जानते हैं? 2
2. नवाब साहबने बहुत करीने से क्या किया? 1
3. नवाब साहब की भाव-भंगिमा और जबड़ों के स्फुरण से क्या स्पष्ट था? 2

8. निम्नलिखित पठित पद्यांश को ध्यानपूर्वक पढ़कर दिए गए प्रश्नों के उत्तर लिखिए-

तुम्हारी यह दंतुरित मुसकान
 मृतक में भी डाल देगी जान
 धूलि-धूसर तुम्हारे ये गात.....
 छोड़कर तालाब मेरी झोंपड़ी में खिल रहे जलजात
 परस पाकर तुम्हारा ही प्राण,
 पिघलकर जल बन गया होगा कठिन पाषाण
 छूगया तुमसे कि झरने लग पड़े शेफालिका के फूल
 बाँस था कि बबूल?

1. छोड़कर तालाब मेरी झोंपड़ी में खिल रहे जलजात पंक्ति का अर्थ लिखिए। 2

2. दंतुरित मुसकान को देखकर कवि और क्या-क्या विचार करता है?2

3. दंतुरित मुसकान का क्या अर्थ है?

1

9. निम्नलिखित प्रश्नों के उत्तर संक्षेप में दीजिए-

2X4=8

क. लेखक ने नवाब साहब के सामन की बर्थ पर बैठकर भी आँखे क्यों चुराई?

ख. लेखक को परिमल के दिनों के कौन-से घटनाक्रम याद आते हैं?

ग. कैप्टन कौन था? उसे क्या बात आहत करती थी?

घ. लेखिका मन्नू भंडारी के व्यक्तित्व पर किन-किन व्यक्तियों का असर पड़ा?

10. निम्नलिखित प्रश्नों के उत्तर संक्षेप में दीजिए-

2X4=8

क. कन्यादान कविता में कन्या की कैसी छवि आपके सामने उभर रही है? लिखिए

ख. लक्ष्मण परशुराम से पुनः आत्मप्रशंसा करने के लिए क्यों कहते हैं?

ग. उद्धव द्वारा दिए गए योग के संदेश ने गोपियों पर क्या प्रभाव डाला?

घ. दुविधा –हत साहस से कवि का क्या अभिप्राय है? छाया मत छूना के आधार पर बताइए।

11. प्रकृति हिमशिखरों को बनाकर जलसंचय की व्यवस्था कर रखी है, परंतु बढ़ती मानवीय गतिविधियों के कारण हिमशिखर पिघलते जा रहे हैं। इसे रोकने के लिए कुछ उपयोगी सुझाव दीजिए। 4

12. दिए गए संकेत बिंदुओं के आधार पर निम्नांकित किसी एक विषय पर 200 से 250 शब्द में निबंध लिखिए।

10

1. आत्मनिर्भरता:- प्रस्तावना, महानगर की विशेषता, मध्य वर्ग का विकास, महानगरीय जीवन के सुखद एवं दुखद पक्ष, उपसंहार

2. लोकतंत्र और चुनाव:- लोकतंत्र में लोक का महत्व, जनता की आवाज़: चुने हुए प्रतिनिधि, प्रतिनिधि चुनने से लोकतंत्र की रक्षा, सही प्रतिनिधि कैसे चुने

3. किसानों की समस्या:- प्रस्तावना, मौसम की मार, फसलों की न्यूनतम कीमतें, शिक्षा और जागरूकता का आभाव, उपसंहार

13. निम्नलिखित में से किसी एक विषय पर पत्र लिखिए-

5

क. गंदगी से भरी नालियों से आती बदबू और फैलती बीमारी की जानकारी देते हुए नगर पार्षद को पत्र लिखिए कि वे जल्दी सफ़ाई करवाएँ।

अथवा

ख. अपने विद्यालय के स्वस्थ वातावरण की जानकारी देते हुए अपने बड़े भाई को पत्र लिखिए।

14. आपके शहर में ऊनी कपड़ों की सेल लगी है। इसके लिए 25-50 शब्दों का एक विज्ञापन तैयार कीजिए।

5

Atomic Energy Central School No. 4 Rawatbhata

Confidence Examination (2018 - 19)

Time: 3 Hours

Class X, Mathematics

Time: 80

Name of the student :

Class : X -

Roll No.

NOTE : - Each question of SECTION - A carry 1 mark ; Each question of SECTION - B carry 2 marks ; Each question of SECTION - C carry 3 marks ; Each question of SECTION -D carry 4 marks ;

SECTION - A

1. If $x = 3 + \sqrt{2}$ is one root of the equation $x^2 - 6x + 7 = 0$, then find the other root.
2. find the HCF of the smallest prime number and the smallest composite number.
3. Find next term of A.P. $\sqrt{12}, \sqrt{75}, \sqrt{192}, \dots$
4. Find the distance between the points $(\cos\theta, -\sin\theta)$ and $(-\cos\theta, \sin\theta)$
5. If $\sin A = \frac{5}{13}$, Calculate the value of $\tan A$.
6. Given $\Delta ABC \sim \Delta PQR$, if $\frac{AB}{PQ} = \frac{3}{5}$, then find $\frac{ar\Delta ABC}{ar\Delta PQR}$.

SECTION - B

7. Prove that $\sqrt{2}$ is an irrational number.
8. Solve the pair of equations $37x + 63y = 263$; $63x + 37y = 237$.
9. $(8x + 4), (6x - 2)$, and $(2x + 7)$ are in A.P. , find x.
10. In what ratio does the point $(-4, 6)$ divide the line segment joining the points $A(-6, 10)$ & $B(3, -8)$.
11. Find the value of k so that the equations $kx + 4y = k - 4$; $16x + ky = k$, have no solutions.
12. If two vertices of ΔABC are $A(-4, 2)$ and $B(4, -1)$ and co-ordinate of centroid is $G(3, 7)$. Find the co-ordinate of vertex C.

SECTION - C

13. Find H.C.F & L.C.M of 404 and 96 and verify that $H.C.F \times L.C.M = \text{product of the 2 given numbers}$.
14. Obtain all others zeros of polynomial $x^4 - 6x^2 - 3x + 2$, if two of its Zeros are $\frac{1}{2}(3 \pm \sqrt{5})$.
15. If $A(-2, 1)$, $B(a, 0)$, $C(4, b)$ and $D(1, 2)$ are the vertices of a parallelogram ABCD, find the value of a and b. Hence find the lengths of its sides.

OR

If $A(-5, 7)$, $B(-4, -5)$, $C(-1, -6)$ and $D(4, 5)$ are the vertices of a quadrilateral ABCD, find the area of the quadrilateral ABCD.

16. A jackal saw a rabbit in front of it at a distance of 10meters. It runs to catch the rabbit with a speed 2m/s and uniform acceleration 1m/s^2 . To save its life the rabbit runs with maximum uniform speed 6m/s. At what time the jackal will catch the rabbit & how much distance the jackal covered.
17. If the area of two similar triangles are equal, prove that they are congruent.
18. Prove that the lengths of tangents drawn from an exterior point to a circle are equal.

19. If A , B , and C are interior angles of a triangle ABC , then show that $\sec \left(\frac{B+C}{2} \right) = \operatorname{cosec} \frac{A}{2}$
20. Three horses are tied at each corner of a triangular grass field with ropes of 7 meter each. If sides of the field are 17m , 20m and 18m , find the area grazed by them.
21. A heap of wheat is in form of cone of base diameter 24 m and height 3.5 m. How much canvas is required to just cover the heap?
22. Metallic solid spheres of radii 6 cm, 8 cm and 10 cm, respectively, are melted to form a single solid sphere. Find the radius of the resulting sphere.

SECTION - D

23. A train covers a certain distance by a uniform speed. If train would have been 10 km/hr faster, it would have taken 2 hours less than the scheduled time. And, if the train were slower by 10 km/hr , it would have taken 3 hours more than the scheduled time . Find the distance covered by the train of its journey.
24. If S_n of an A.P is given by $n(5n + 7)$. Find (a) a_n , (b) 26th term
25. State and prove "Basic Proportionality theorem".
26. draw a triangle ABC with $BC = 6$ cm, $AB = 5$ cm and $\angle ABC = 60^\circ$. Then construct a triangle whose sides are $\frac{3}{5}$ of the corresponding sides of the ΔABC .
27. Prove that $\frac{\sin A - 2 \sin^2 A}{2 \cos^2 A - \cos A} = \tan A$.
28. The diameters of the lower and upper ends of a bucket in the form of a frustum of a cone are 10 cm and 30 cm, find (i) The area of the metal used to make the bucket.
(ii) why we should avoid the bucket made by ordinary plastic ? [Use $\pi = 3.14$]
29. The angles of elevation of the top of a tower from two points distant 32 m and 72 m from the base and in the same straight line with it are complementary. Find the height of the tower.
30. Prove that $\frac{\sin \theta - \cos \theta + 1}{\sin \theta + \cos \theta - 1} = \frac{1}{\sec \theta - \tan \theta}$.
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Atomic Energy Central School No 4 Rawatbhata

Confidence Examination (2018-19)

Time: 3Hrs

Class X ,Science

M.M. 80

General Instructions:

- (i) The question paper comprises of five sections- A,B,C,D and E. You are to attempt all the sections.
- (ii) All questions are compulsory.
- (iii) Internal choice is given in sections B,C,D and E.
- (iv) Questions 1 and 2 in Section-A are 1 mark questions. They are to be answered in one word or in one sentence.
- (v) Questions 3 to 5 in Section- B are 2 marks questions. These are to be answered in about 30 words each.
- (vi) Questions 6 to 15 in Section-C are three marks questions. These are to be answered in about 50 words each.
- (vii) Questions 16 to 21 in Section—D are 5 marks questions. These are to be answered in about 70 words each.
- (viii) Questions 22 to 27 in Section-E are based on practical skills. Each question is a two marks question. These are to be answered in brief.

SECTION-A

- Q.1. Name the body fluid & its component that transports carbon-di-oxide. 1
- Q.2. What do you mean by water shed management? 1

SECTION-B

- Q3.Will current flow more easily through a thick wire or thin wire of the same material, when connected to the same source? Why? 2
- Q.4. Why zinc oxide is called “amphoteric oxide”?Support your answer with suitable equations. 2
- Q.5. Unicellular Organisms Amoeba &Leishmania both use same mode of asexual reproduction but with a difference. Identify the mode& also clarify the difference. 2

SECTION-C

- Q6.Write three properties of a good fuel. 3
- Q7.A magnetic compass shows a deflection when placed near a current-carrying wire. How will the deflection of the compass get affected if the current in the wire is increased? Support your answer with a reason. 3
- Q8.A convex mirror used for rear-view on an automobile has a radius of curvature of 3m. If a bus is located at 5m from this mirror. Find the position, nature and size of the image. 3
- Q9.(a) What are the advantages of connecting electrical devices in parallel with the battery instead of connecting them in series? 3
- (b) 100J of heat are produced each second in a 4 ohm resistance. Find the potential difference across the resistor.
- Q.10. A new iron nail was dropped in a test tube containing freshly prepared copper sulphate solution. State the two observations which will be noticed after one hour. Also write the equation for the reaction involved. 3
- Q11. Give reasons:- 3
- (i) Curd should not be stored in metallic vessel. (ii) During indigestion, antacids are recommended.
- (iii) Rock salt is often brown in colour.

OR

A Sodium salt is used in soda-acid fire extinguishers. How it is prepared? Write equations also. What makes it suitable to be used for making antacids?

.Q12. Which characteristic of Mendeleev Periodic table shows that Mendeleev had vision for future elements? State any two anomalies of Mendeleev periodic table.

3

Q13. "Bile juice does not contain any enzyme but is very important for digestion". Why? Also mention the function of Lipase. 3

Q.14. State which part of human brain controls the following- 3

(i) One can write in italics (ii) Sensation of feeling full after a meal. (iii) Partial control of heartbeat.

Q.15. Write any three ways for managing the garbage we produce.

OR

What is a food chain? Write one example. Why do food chains only have three to four trophic levels?

SECTION-D

Q16. (a) Explain the phenomenon of dispersion of light through a glass prism using suitable ray diagram.

(b) Explain why the colour of the sky is blue?

(c) An astronaut in space finds sky to be dark. Why? 5

Q17. What is meant by power of a lens? Define its SI unit. 5

You have two lenses A and B of focal lengths +10 cm and -10 cm, respectively. State the nature and power of each lens. Which of the two lenses will form a virtual and magnified image of an object placed 8 cm from the lens? Draw a ray diagram to justify your answer.

Q.18. (i) How will you obtain zinc metal from calamine ($ZnCO_3$)? 5

(ii) Draw a labelled diagram for electrolytic refining of copper.

(iii) Write the composition of alloy solder.

Q19. A compound A ($C_2H_4O_2$) reacts with Na metal to form a compound 'B' and evolves a gas which burns with a pop sound. Compound 'A' on treatment with an alcohol 'C' in presence of an acid forms a sweet smelling compound 'D' ($C_4H_8O_2$). On addition of NaOH to 'D' gives back B and C. Identify A, B, C and D write the reactions involved. 5

OR

(i) What is homologous series? Why a gradation in physical properties is seen in any homologous series as molecular mass increases?

(ii) What are detergents? Also state their one advantage & one disadvantage over soaps.

Q.20. (i) Draw the diagram of female reproductive system & label. (a) Site of Ovulation (b) Site of fertilization.

(ii) What are STDs? How can we prevent them? 5

Q.21. Name the phenomenon that governs the following:-

(i) Green beetles in bushes are not eaten by the crows.

(ii) Number of blue beetles in green bushes increases, only because the red beetles living there were trampled by a herd of elephants.

(iii) No medium height plants are obtained in F1 generation, upon crossing pure tall and dwarf pea plants.

(iv) Tails of mice were surgically removed for several generations; still mice had tails in the following generations.

(v) A migrant beetle reproduces with the local population as a result genes of migrant beetle enter the new population.

OR

a) What are fossils and how is age of fossils determined?

b) During artificial selection, which features of wild cabbage were selected to give rise to (i) Broccoli (ii) Kohlrabi?

SECTION – E

Q.22. Mention the condition under which charges can move in a conductor. Name the device which is used to maintain this condition in an electric circuit for verifying Ohm's law.

Q.23. A student wants to project the image of a candle flame on a screen 48 cm in front of a mirror by keeping the flame at a distance of 12 cm from its pole

(a) Suggest the type of mirror he should use.
produced.

(b) Find the linear magnification of the image

Q.24. A dilute solution of which one of HCl & CH₃COOH will have higher value of pH? Why?

OR

Five solutions A, B, C, D, E produced Green, red, dark pink, violet & blue colour respectively. Identify their chemical nature and also arrange the solutions in decreasing order of their strength.

Q.25. Why does soap not work effectively in hard water?

Q.26. A student was studying binary fission in amoeba with the help of permanent slides. Draw the stages which he will observe in sequence.

OR

When observed under high power of the microscope, 'chain of buds' is visible in the microscopic view. In which organism can it be observed? Explain the process.

Q.27. What is micropyle? What is its function?

Atomic Energy Central School No.4 Rawatbhata
Confidence Test I(2018-19)
Class-X, Social Science

M.M: 80

Time-3 Hours

General Instructions :-

1. The question paper has 26 questions in all. All questions are compulsory.
2. Marks are indicated against each question.
3. Questions from serial number 1 to 7 are very short answer question. Each question carries one mark.
4. Questions from serial number 8 to 18 are 3 marks questions. Answer of these questions should not exceed 80 words each.
5. Questions from serial number 19 to 25 are 5 marks questions. Answer of these questions should not exceed 100 words each.
6. Question number 26 is related to map. This is a 5 marks question from history and Geography. After completing, attach the map inside your answer sheet.

- | | | |
|-------|---|---|
| Q. 1 | What was the main aim of the french revolutionaries ? | 1 |
| Q. 2 | Who introduced printing technology by hands in Japan ? | 1 |
| Q. 3 | How do minerals occur in sedimentary rocks ? | 1 |
| Q. 4 | Write any one prudential reasons for which power sharing is desirable ? | 1 |
| Q. 5 | How can you say that democracies are based on political equality ? | 1 |
| Q. 6 | What is meant by double coincidence of wants ? | 1 |
| Q. 7 | Why did Government of India impose barrier on foreign trade and foreign investment after independence ? | 1 |
| Q. 8 | How did paul Bernard argue in favour of economic development of Vietnam? Explain. | 3 |
| Q. 9 | Describe any three problems faced by the peasants of Awadh in the days of non-cooperations Movement. | 3 |
| Q. 10 | Rounak owns a farms in Uttar Pradesh he wishes to cultivate either Jute or Sugarcane. He shall cultivate which crop out of these required for their growth ? Explain. | 3 |
| Q. 11 | How can solar energy solve the energy problem to some extent in India ? Give your opinion. | 3 |
| Q. 12 | How is democracy accountable and responsive to the needs and expectations of the citizens ? Analyze. | 3 |
| Q. 13 | Write three features of unitary and federal system each present in India. | 3 |
| Q. 14 | Democracy is much better to enhance dignity and freedom of the people". Justify the statement by giving three points. | 3 |
| Q. 15 | Describe the contributions of regional parties to strengthen federalism and democracy in India. | 3 |
| Q. 16 | What are such factors other than income. Which play an important role in our lives. | 3 |

- Q. 17 You are an employee of a organised sector. What kinds of facilities you will avail in comparison to an employee of un-organised sector ? 3
- Q. 18 What are important main changes visible in India, after accepting the policies of liberalization and globalization ? 3
- Q. 19 **why was a new eduction policy introduced by the French in vietnam ? what were the limitations or drawbacks of this policy ?** 5
- Q. 20 **what were the circumstances which led to the Khilafat and the Non- Cooperation Movement?** 5
- Q. 21 "The place of change has been rapid in modern times and has impacted the ways of communication as well." In light of the given statement explain the role of a variety of means of communication that are used in India in the current times. 5
- Q. 22 Where are most of the Sugar industries located ? What are major challenges before this industry ? 5
- Q. 23 What is meant by a political party ? Suggest any three effective measures to reform political parties. 5
- Q. 24 How does Bank play an important role in Indian economy ? Clarify. 5
- Q. 25 Describe the role of manufacturing industries in the development of economy. 5
- Q. 26 Complete the following questions in the given outline political map of India. 5
- (i) Name the place, where the Indian National congress session was held.
 - (ii) Write the name of the place related to calling off the Non-cooperation Movement.
 - (iii) Name the Iron and Mines.
 - (iv) Terminal station of North - East corridor.
 - (v) Locate and label the Vishakhapatnam software Technology park.
