HOLIDAYS ASSIGNMENT
CLASS X
SESSION 2021-22

Maths   Assignment 1

1. Show that is divisble by 8. If n is an odd positive integer.
2. State Elucid division Lemma.
3. Find the HCF of 65 and 117 and express it in the form 65m +117n.
4. Prove that √7 is an irrational number.
5. Three bells toll at intervals of 9,12,15 minutes respectively . If they start tolling together at 9:am ,at what time will they next toll together.
6. Prove that √3+√5 is irrational.
7. Find the largest number that will 398,436 and 542 leaving remainders 7,11 and 15 respectively.
8. If the zeroes of the polynomial x^2+px+q are double in value to the zeroes of $2x^2$-5x-3, find the value of p and q.
9. Find the zeroes of the polynomial f(x) $4\sqrt{3}x^2 + 5x - 2\sqrt{3}$ and verify the relationship b/w zeroes and coefficients
10. If are the zeroes of the quadratic polynomial f(x) $kx^2 + 4x + 4$ s.t $\alpha^2 + \beta^2$. Find the values of k.
11. If two zeroes of polynomial.f(x) $x^4 - 6x^3 - 26x^2 + 138x - 35$ are $2 \pm \sqrt{3}$ find other zero
12. Find the values of a and b so that $x^4 + x^3 + 8x^2 + ax + b$ is divisible by $x^2 + 1$.
13. What must be added to f(x) $4x^4 + 2x^3 - 2x^2 + x - 1$, so that the resulting polynomial is divisible by $x^2 + 2x - 3$
14. Divide the polynomial f(x) $3x^2 - x^3 - 3x + 5$ by the polynomial g(x) $x^2 + 7x + 10$
15. Prove that there is no natural number for which 8^n ends with the digit zero.
16. Find the HCf of 1760, 4048,3632 and 7608.
17. Use Euclid's division Lemma to show that the cube of any positive integer is of the form 9m , 9m+1 or 9m+8.
18. Form the pair of linear equation and solve graphically. 10 students of class X took part in a quiz. If the girls are 4 more than the number of boys. Find the number of boys and girls who took part in quiz.
19. A boat cover 25Km upstream and 44KM downstream in 9hrs. And 22 KM downstream in 5hrs. Find the speed of the boat in still water and of stream.
20. Find the fraction if the sum of numerator and denominator of a fraction is 18. If the denominator is increased by 2, the fraction reduce to 1/3.
21. The sum of a two digit number and the number formed by interchanging the digit is 132. If 12 is added to the number, the new number becomes 5 times the sum of the digits. Find the number.
22. Solve for x and y $\dfrac{6}{x+y} = \dfrac{7}{x-y} + 3 \, where \, x - y \neq 0$

$\dfrac{1}{2(x+y)} = \dfrac{1}{3(x-y)} \, where \, x + y \neq 0$

23. Find two numbers such that the sum of thrice the first and the second is 142 and four times the first exceeds the second by 138.
24. If then find whether the pair of linear equation ax+by=p and xx+dy =q has no solution unique solution or infinitely many solution
25. If 12x+17y = 53 and 17x+ 12y =63 then find the value of x+y.

Maths   **Assignment- 2**

1. Solve equation graphically
   X-y=1,2x+y =8 shade the region bounded by two lines and y-axis. Find vertices of angle and area of angle.
2. Solve 991x + 397y=197, 397x – 991y= 2397
3. In angle ABC. $\angle c = 3\angle B = 2(\angle A + \angle B)\, find\, angle\, \angle A + \angle B$
4. A two digit numbers is obtained by either multiplying sum of the digit by 8 and adding 1 or by multiplying the difference of digits by 13 and adding 2 . Find the number.
5. If equation has infinitely many solution find k equation are Kx + 3y= K-3, 12x + Ky = K.
6. Solve (a-b)x +(a+b)y= $a^2 - 2ab + b^2$
   (a+b)(x+y)= $a^2 + b^2$ By elimination method and cross multiplication method
7. Find a,b if equation has infinite many solution of x+2y =1, ax-bx+ay= a+b-2-by
8. The income of A and B are in the ratio 8:7 and their expenditure are in the ratio 19:16. If each saves Rs. 1250, find their income.
9. In cyclic quadrilateral angle A =-4x , angle B =-7x+5, angle C =4y+20 , angle D =3y-5 find each angle.
10. 90% and 97% pure acid solution are mixed yo obtain 21 liters of 95% pure acid solution . Find each type of acid to be mixed to form the mixture.
11. The perimeter of a rectangle is 200 cm. The ratio of sides is 3:5. Find length and breadth.
12. The ages of two boys are in the ratio 5:7. 8 years ago their ages were in the ratio 7:13. Find the present age.
13. Solve $\dfrac{2}{\sqrt{x}} + \dfrac{3}{\sqrt{y}} = 2, \dfrac{4}{\sqrt{x}} - \dfrac{9}{\sqrt{y}} = -1$
14. Solve $x + y = 2xy$ & $\dfrac{1}{x} - \dfrac{1}{y} = -6$

   $ax + by = 1$
15. Solve
   $bx + ay + 1 = \dfrac{(a+b)^2}{a^2 + b^2}$

SST

Assignment-1

1. Explain the classification of resources on the basis of the state of development and on the basis of. Origin. On the basis of Exaustability.
2. Discuss the problem which have been caused due to over utilisation of resources.
3. How do over irrigation and minning leads to land degradation.
4. Explain the major factors which are responsible for the formation of soil.
5. Difference between Bangur and Khadar soil.
6. What is sustainable economic development?suggest any two ways in which resources can be used judiciously.
7. What is soil erosion? Explain the major types of soil erosion prevailing in India.
8. Explain the four proper farming techniques which can be used for soil conservation.
9. Suggest some of the stepswhich can be undertaken to control land degradation.
10. Explain the Human activities which are responsible for land degradation in India.
11. What is the importance of natural resources? Why is it necessary to conserve them.
12. How is climate themost important factor in soil formation?Explain two reasons.
13. What is the main criteria used by the world bank in classifying different countries? What are the limitations of this criteria?
14. What may be development for one may not be development other explain by giving example.
15. In what respect is the criteria used by the UNDP for measuring development different from the one used by the world bank.
16. Why do we use averages are there any limitations to their use?illusttrate with example.
17. Kerala with lower per capital income has better human development ranking with Punjab.Hence per capita income is not a useful criteria at all.
18. Why is the issue sustainability important for development?
19. The earth has enough resources to méet the need of allbut not enough to satisfy the greed of even one person. How this statement relevant to the discussion of development
20. Mention four characteristics od development.
21. Difference between Human and Economic Development
22. What is development and national development
23. What is sheet erosion and Gully erosion
24. India has enormous diversity in the availability of resources explain.
25. What is resource planning. Mention the steps which are involved 8n resource planning

SST

ASSIGNMENT 2

1. Write Note on (a)Giuseppe Mazzini. (b) Count Camillo de Cavour
2. The Greek war of Independence(a) Frankfurt Parliament
3. What steps did the French revolutionaries take to create a sense of collective identity among the French people?
4. Who were Marianne and Germania? What was the importance of the way in which they were portrayed?
5. Briefly trace the process of German unification.
6. Briefly trace the unification of Italy.
7. Briefly trace the unification of Britain.
8. What changes did Napaleon introduce to make the administrative system were efficient in territories ruled by home?
9. What did Nationalist tensions emerge in the Balkons?
10. What was the treaty of Vienna?
11. Who was Otto Van Bismarck? Explain his role in the Unification of Germany.
12. Explain the role of language in developing the nationalist sentiments in Europe.
13. How did culture play an important role in creating the ideas of the nation in Europe?
14. Explain the theme of Frederic Sorrieu's paintings.
15. The 1830s were the years of great Economic hardships in Europe. Give

English
Assignment

Answer these questions
1. What did the display of jets and military salute symbolise?
2. What did he mean by ' my brothers and sisters'
3. How did the yearning for freedom transform greatly?
4. How did the policy of apartheid create a deep and lasting wound on South African Blacks.
5. How does the tyrant become a prisoner himself?
6. Why did the thief change his name every month? How did he rob people? OR How did the young seagull's family celebrate his first flight?
7. How was Hari' Singh appealing smile at the end different from similar smiles of his on earlier occasion s? OR How did the parents of the young seagull try to teach him how to fly?
8. I which queer way did Anil make a living? OR When did the seagull's flight begin and where did it end? 9. Anil was the most trusting person he had ever met. What made Hari think so? Did he betray that trust?
OR
Who do you hold responsible for the delay in the young seagull's learning to fly?
10. Hari missed the Lucknow express. What was his consideration?
                                         OR
How did the black aeroplane rescue the pilot of the Dakota?
11.Gap filling
I do not have (a)_____ friends. Being a man of (b)_____ words, people hesitate(c)_____ spend their leisure hours in (d)_____ company.I € _____ a lot of time in developing new friendships.
1(a) (I) much. (ii) many. (iii) more. (iv) few
2(b) (I) more. (ii) a lot of. (iii) few. (iv) less
3© (I) for. (Ii) but. (iii) to. (iv) in
4(d) (I) my. (ii) mine. (iii) the. (iv) our
5(e) (I) took. (ii) will take. (iii) take. (iv) have taken
Writing
Ques. You bought a cardless phone online from a reputed website. On checking the instruments , you found the phone to be faulty and want it to be replaced at the earliest.
Write a letter to the complaining about the same . You are Neha/ Manoj Arora living at 39, Jawahar Nagar , Udaipur Ques. Write an article on Right to Education Act.

Hindi   Assignment-1

प्रशन **1** आदर्श स्थिति बनाए रखने के लिए बड़े भाई साहब का बचपना कैसे दूर हो जाता है

प्रशन **2** बुनियादी पुख्ता ना हो तो मकान कैसे पायदान बने पंक्ति का आशय स्पष्ट कीजिए!

प्रशन **3** कथा नायक को क्या.क्या करना पसंद था

प्रशन **4** कबीर की सखी पाठ की वर्तमान परिपेक्ष में क्या मेहता है

प्रशन **5** छोटे भाई की स्वच्छंदता क्यों बढ़ गई थी बड़े भाई पाठ के आधार पर बताइए

प्रशन **6** छोटे भाई की किन्हीं दो चारित्रिक विशेषताओं का वर्णन कीजिए!

प्रशन **7** लेखक को बाजार में पतंग लूटते देखकर बड़े भाई साहब ने कैसे डांटा

प्रशन **9** कबीर ने किस घर को जलाने की बात की है वर्तमान में यह कितना युक्तिसंगत है

प्रशन **10** साखी पाठ के आधार पर लिखिए ईश्वर वस्तुतः कहां है हम उन्हें क्यों नहीं देख पाते

प्रशन **11** कबीर दास जी ने अपने दोहे में हिरण का उदाहरण किस संदर्भ में दिया है क्या आप उनके विचार से हैं

प्रशन **12** कबीर दास जी किन जीवन मूल्यों को मानव के लिए आवश्यक मानते हैं

प्रशन **13** अहंकार का भाव भक्ति मार्ग की सबसे बड़ी बांधा है इस विषय पर अपने विचार व्यक्त कीजिए!

प्रशन **14** कहानी के अनुसार बड़े भाई साहब को क्या विशेष अधिकार मिला हुआ था

प्रशन **15** टाइम टेबल बनाकर पढ़ना अधिकतर छात्रों को अच्छा नहीं लगता क्यों कोई दो कारण दीजिए

प्रशन **16** रचना के आधार पर निम्नलिखित वाक्यों का भेद बताइए
  I.   मैं जानता हूं अमर पढ़ने में तेज है
  II.   मैंने आज तक एक भी फिल्म नहीं देखी
  III. मिर्जा घर गई है गई और उसके पिता को देखा
  IV.   गरीबों की कोई नहीं सुनता
  V.   जैसे ही शाम हुई वैसे ही सारे पक्षी नीड़ में आ गए

प्रशन 17 निर्देशानुसार वाक्य रूपांतरण कीजिए)
  I.   मजदूरों ने गड्ढा खोदा और चले गए (.:मिश्र वाक्य में)
  II.   जब उसने मुझे देखा वह खिसक गया   (संयुक्त वाक्य में)
  III. वह रोज पौष्टिक खाना खाता है इसलिए स्वस्थ रहता है ; (सरल वाक्य में)
  IV.   जो व्यक्ति मेहनती होता है वह कभी खाली नहीं बैठता; (सरल वाक्य में)
  V.   वह बाजार गया और पुस्तक खरीद लाया ;(सरल वाक्य में)

प्रशन 18 निम्नलिखित रिक्त स्थानों की पूर्ति उचित मुहावरों से कीजिए
  I.   भ्रष्टाचार की _____ से कोई चूक नहीं रहा
  II.   बेटे के अनुत्तीर्ण होने का समाचार सुनकर पिताजी _____
  III. यदि आर्थिक स्थिति ठीक ना हो तो ____ ठीक बात नहीं
  IV.   अपने मेहमानों के स्वागत में ___ __ हम भारतीयों की संस्कृति है!
  V.   गरीब माता.पिता अपना _____ कर बच्चों का पालन पोषण करते हैं!

प्रशन 19 स्वच्छ भारत अभियान से संबंधित **25.-50** शब्दों में एक विज्ञापन तैयार कीजिए

प्रशन 20 आपके भाई ने वातानुकूलित यंत्र बनाने की एक कंपनी खोली है उस उसके प्रचार.प्रसार के लिए
25-   50 शब्दों में आकर्षक विज्ञापन तैयार कीजिए

प्रशन 21 आपके शहर में विश्व पुस्तक मेले का आयोजन होने जा रहा है उसके लिए **25 से 50** शब्दों में विज्ञापन तैयार कीजिए

प्रशन 22 अपने सेवानिवृत्त पूर्व अध्यापक को उसकी उपलब्धियों की सराहना करते हुए धन्यवाद ज्ञापन पत्र लिखिए!

प्रशन 23 अपने क्षेत्र में बिजली आपूर्ति की समस्या के संदर्भ में संबंधित अधिकारी को शिकायती पत्र लिखिए!

प्रशन 24 आपके दो सहपाठियों ने प्रशंसनीय साहसिक कार्य किया है अपने विद्यालय के प्रधानाचार्य जी को एक   पत्र लिखकर अनुरोध कीजिए कि उन दोनों सहपाठियों को विद्यालय की ओर से सम्मानित किया जाए!

प्रशन 25 कल कारखानों के कारण आपके नगर में बढ़ते हुए प्रदूषण तथा उसके खतरों को देखते हुए किसी दैनिक समाचार पत्र के संपादक को पत्र लिखिए!

Hindi
Assignment -2

प्रशन 1- मीरा के अनुसार श्रीकृष्ण ने किस किस की रक्षा की? पद के आधार पर उत्तर दीजिए !

प्रशन 2- भाव भक्ति को जागीर क्यों कहा गया है? उसके लिए क्या आवश्यक है?

प्रशन 3 चकरी से मीरा को क्या लाभ मिलेगा?

प्रशन 4 श्री कृष्ण के अपने अप्रतिम रूप सौंदर्य का वर्णन अपने शब्दों में कीजिए !

प्रशन 5 मीराबाई ने श्री कृष्ण जी की चाकरी की अभिलाषा क्यों व्यक्त की है?

प्रशन 6 निर्गुण और सगुण भक्ति में क्या अंतर है ?दोनों से संबंधित एक कवि कवित्री या का नाम लिखिए!

प्रशन 7   मूड तो गजराज   रखियो , काटी कुंजर पीर

दासी मीरा लाल गिरधर , हरे हरो मारी भीर

उपयुक्त पंक्तियों का काव्य सौंदर्य स्पष्ट कीजिए

प्रशन 8 निम्नलिखित मुहावरों को अपनी पंक्तियों में इस प्रकार प्रयोग कीजिए कि उसका अर्थ स्पष्ट हो जाए-

1 आड़े हाथों लेना   2 गाड़ी कमाई   3जमीन पर पावन रखना 4 आटे दाल का भाव मालूम होना 5 लोहे के चने चबाना 6   प्राण सूखना   7 बाट जोहना 8 हाथ पांव फूल जाना 9 आपा खोना 10 आंखों में धूल झोंकना

प्रशन 9   निम्नलिखित वाक्यांशों के लिए उपयुक्त मुहावरे लिखिए

    I.   शर्म के कारण बचते   _____
    II.   महत्वहीन व्यक्ति होना   _____
    III. रिश्वत देना   _____
    IV.   दूसरों के मन की बात कह देना _____
    V.   बिल्कुल अच्छा ना लगना_____

प्रशन10 सरल संयुक्त एवं मिश्रित वाक्य   से संबंधित दो दो उदाहरण दीजिए

प्रशन11   करोना का बढ़ता प्रकोप के विषय पर 80 से 100 शब्दों में एक अनुच्छेद लिखिए

प्रशन12 कामकाजी नारी के समक्ष चुनौतिया विषय पर 80 से 100 शब्दों में अनुच्छेद लिखिए

प्रशन13 प्लास्टिक मुक्त भारत विषय पर जन जागरण हेतु 25 से 50 शब्दों में एक विज्ञापन तैयार कीजिए

प्रशन14 समाचार पत्र के संपादक को पत्र लिखिए जिसमें दिल्ली में बढ़ती हुई अप राजनीति की ओर अधिकारियों का ध्यान आकृष्ट करवाया गया हो

प्रशन15   अपने विद्यालय के प्राचार्य को पत्र लिखकर विद्यालय मैं सांस्कृतिक कार्यक्रम आयोजित कराने लिए उन्हें धन्यवाद दीजिए

1. What is Chemical Reaction?
2. On what basis is a Chmeical equation balanced
3. Write a balanced chemical reaction sodium chloride and silver nitrate indicating the physical state of the reactant and the products.
4. What are the various in which a chemical equation can be made more informative.
5. Identify the type of reaction in the following examples
   (a) $Na_2SO_4 + BaCL_2 \rightarrow BaSO_4 + 2NaCL$
   (b) $N_2 + 3H_2 \rightarrow 2NH_3$
   (c) $2pb(NO_3)_2 \rightarrow 2pbO + 4NO_2 + O_2$
   (d) $Zn + 2AgNO_3 \rightarrow Zn(NO_3)_2 + 2Ag$
6. Using balanced Chemical equation explain the difference between a displacement reaction and double
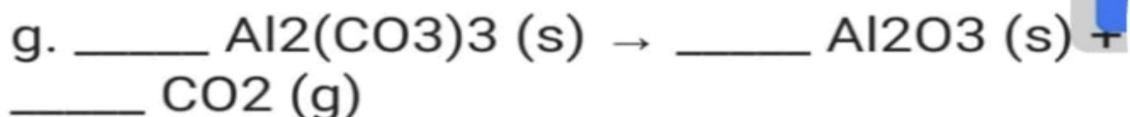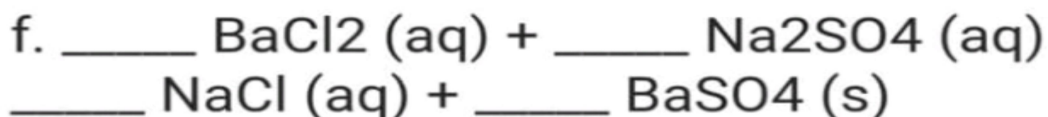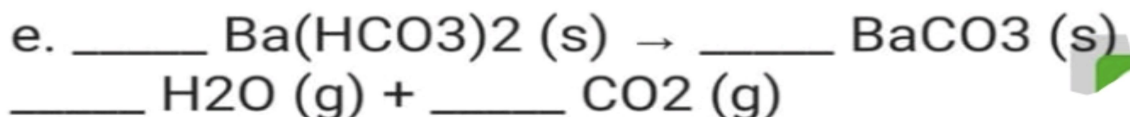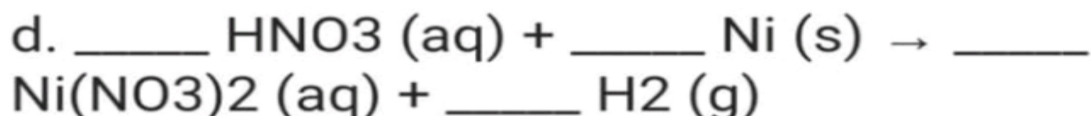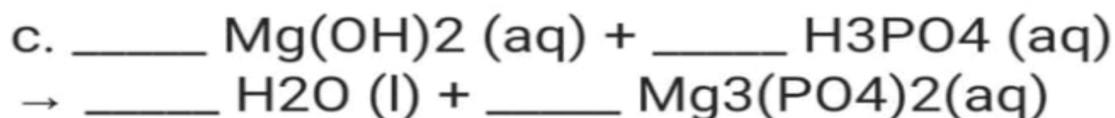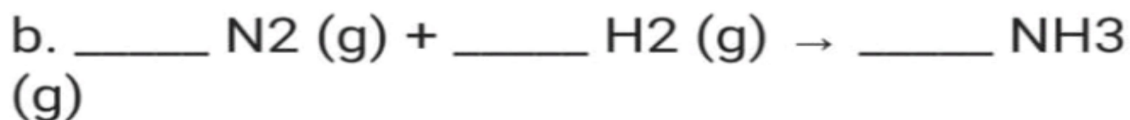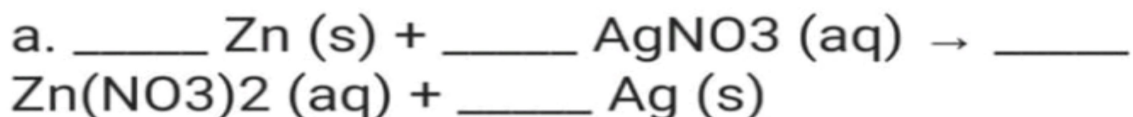
Q1 Define:

☒ Reactants

☒ Products

☒ Balanced chemical equation.

Q2 Balance the following chemical equation and identify the reactants and products.

a. _____ Zn (s) + _____ AgNO3 (aq) → _____ Zn(NO3)2 (aq) + _____ Ag (s)

b. _____ N2 (g) + _____ H2 (g) → _____ NH3 (g)

c. _____ Mg(OH)2 (aq) + _____ H3PO4 (aq) → _____ H2O (l) + _____ Mg3(PO4)2(aq)

d. _____ HNO3 (aq) + _____ Ni (s) → _____ Ni(NO3)2 (aq) + _____ H2 (g)

e. _____ Ba(HCO3)2 (s) → _____ BaCO3 (s) _____ H2O (g) + _____ CO2 (g)

f. _____ BaCl2 (aq) + _____ Na2SO4 (aq) _____ NaCl (aq) + _____ BaSO4 (s)

g. _____ Al2(CO3)3 (s) → _____ Al2O3 (s) + _____ CO2 (g)

h. _____ Ca (s) + _____ H2O (l) → _____

Biology

Assignment

1. What is the difference between breathing and respiration.
2. write down the name of sound producing organ in man?
3. What is the role diaphragm in respiration
4. What is anaerobic respiration? What happen during anaerobic respiration in yeast?
5. What is the specific reason for muscle cramps that are caused due to sudden physical activity?
6. Name the three carbon compound formed during anaerobic respiration in muscle.
7. (a) write the use of cartilaginous rings in trachea?
(b) what prevents entry of food particles into wind pipe?
8. The air entering our nose is generally cold and contains dust particles. How is the air made warm and free of dust particles inside the respiratory tract?
9. What is the significance of residual volume of air that lungs always contain?
10. What are adaptations in plant leaves to satisfy the oxygen requirement for aerobic respiration?
11. During the respiration of an organism A one molecule of glucose produce 2ATPmolecule where as in the respiration of organism B, one molecule of glucose produce 38ATPmolecule.Which of the organism A or B has anaerobic respiration? Suggest any other major difference between anaerobic and anaerobic respiration.
12. Explain the role of alveoli in the lungs with respect to its structure and function
13. What are different pathways in which glucose is oxidized to provide energy in various organisms? Explain the mechanism by which breathing occur in human beings including inspiration and expiration
14. Draw a neat well labeled diagram depicting human respiratory system

Physics

Assignment

1. Write down the formula for the heat produced when a current is passed through a resistance R for time t.

2. How does the heat H produced by a current passing through a fixed resistance wire dependon the magnitude of current I ?

3. If the current passing through a conductor is doubled, what will be the change in heat produced ?

4. State three factors on which the heat produced by an electric current depends.

5. Give two applications of the heating effect of electric current.

6. Name two devices which work on the heating effect of electric current

7. Which effect of current is utilized in an electric bulb ?

8. Which effect of current is utilized in the working of an electric fuse ?

9. Explain, why the current that makes the heater element very hot, only slightly warms the connecting wires leading to the heater.

10. Two exactly similar heating resistances are to be used connected across a mains supply to heat some water. Is more heat obtained per minute if they are connected in series or if they are connected in parallel ? Give reasons for your answer.

11. The current passing through a room heater has been halved. What will happen to the heat produced by it.

12. State and explain Joule's law of heating.

13. Name the material which is used for making the filaments of an electric bulb.

14. Explain why, tungsten is used for making the filaments of electric bulbs.

15. Name two gases which are filled in electric bulbs.

16. Explain why, argon or nitrogen is filled in an electric bulb.

17. Why is an electric bulb not filled with air?

18. Why does the cord of an electric heater not glow while the heating element does?

19. Explain why, filament type electric bulbs are not power efficient.

20. An electric iron of resistance 20 ohms a current of 5 amperes. Calculate the heat producedin 30 seconds.

21. An electric heater of resistance 8 ---- takes a current of 15 A from the mains supply line.Calculate the rate at which heat is developed in the heater.

22. A resistance of 40 ohms and one of 60 ohms are arranged in series across 220 volt supply.Find the heat in joules produced by this combination in half a minute.

23. A resistance of 25---- is connected to a 12 V battery. Calculate the heat energy in joules generated per minute.

24. 100 joules of heat is produced per second in a 4 ohm resistor. What is potential difference across the resistor?

25. An electric iron is connected to the main power supply of 220 V. When the electric iron is adjusted at 'minimum heating' it consumes a power of 360 W but at 'maximum heating' it takes a power of 840 W. Calculate the current and resistance in each case.