VASISHTHA GENESIS SCHOOL, BABEN, BARDOLI
DIWALI ASSIGNMENT
CLASS 10

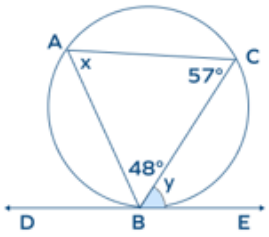
SUBJECT	CONTENT
English	• Using the question bank given for "letter writing" & "Analytical paragraphs" you are to prepare an assignment on A4 size project paper and answer the following questions labelled assignment No.s 1 to 6. A) letter writing Q No.s 7,8,15 & 30 B) Analytical Paragraph Q.no 2,5
Mathematics	**SEPARATE QUESTIONS ATTACHED HEREWITH**
SOCIAL SCIENCE	Prepare an assignment on the following questions: **Ch-5 History- Print Culture in the Modern World** Q-1.What were the reasons favouring shift from hand printing to mechanical printing in China? (3 marks) Q-2."Knowledge of print came to Europe in 1295 AD". Give reasons (3 marks) Q-3.How did Gutenberg get the idea of a printing press? Which was his first printed book? Q-4."Not everyone welcomed the printed books, and those who did also had fears about it." Explain the statement by giving examples. (5 marks) **Ch-5 Civics- Outcomes of Democracy** Q-1."Democracy is more effective than its other alternatives." Justify the statement. (2-3 marks) Q-2.'A democratic government is a legitimate government.' Support the statement with arguments. (3 marks) Q-3.'There is an overwhelming support for the idea of democracy all over the world.' Support the statement. (3 marks)
SCIENCE	**Biology/chemistry/physics** **Separate questions attached herewith** **(Please note : You have to write in respective notebook)**
HINDI	निम्नलिखित में से किसी एक विषय पर परियोजना कार्य तैयार कीजिए ।(परियोजना कार्य नोटबुक में तैयार कीजिए) 1.निम्नलिखित पाठ्यपुस्तक को पड़कर पाठ के शिर्षक एवं लेखक तथा कवियों के नामो के साथ उनके चित्र लगाकर संक्षिप्त परिचय नोटबुक में लिखिए। • स्पर्श • संचयन 2 स्वतंत्रता आंदोलन में निम्नलिखित महिलाओं ने जो योगदान दिया, उसके बारे में संक्षिप्त जानकारी प्राप्त करके लिखिए । (सरोजिनी नायडू, कस्तूरबा गांधी, अरुणा आसफ अली) 3 आपके क्षेत्र में आगामी जनवरी से 'प्रौढ़ शिक्षा केंद्र' शुरू होने वाला है । उसके लिए विज्ञापन तैयार कीजिए ।
GUJARATI	નીચે આપેલા વિષયો પર જાહેરાત A4 સાઈઝના પેપરમાં તૈયાર કરી તેમાં રંગ પૂરી સૂચનો લખો. ૧) સર્વ શિક્ષા અભિયાન ૨) આઝાદી નો અમૃત મહોત્સવ ૩) G-20 ૪) બેટી બચાવો
IT	PRACTICAL WORK(Any 5 Practicals of ***Electronic Spreadsheet (Advanced) using LibreOffice Calc***) Google Classroom CODE : **nhe4tl3** Google Classroom link for Sample Practical File(s): https://classroom.google.com/c/NTI5NzY0NDE1NDEw?cjc=nhe4tl3 Suggested Practical List: **Lab Exercise** 1. Mr Gurdeep has to take a loan of Rs. 10 lakhs to buy a house. After assessing his situation, he has realized that he can pay the loan in 15 years by paying out an EMI of 20,000. a) Use Goal seek to find out the interest rate at which he can borrow the loan. b) Use What If Scenario to depict payment of loan in 25 years by paying out an EMI of 10,000. c) Use Scenario manager to find the best case. 2. Power Motors has 3 branches all over Bhopal. Each branch maintains monthly sales of different models of electric scooter and at the end of month mails it to the State Head. Prepare a consolidated sheet that shows

	total and average sales made for each model of the electric scooter with respect to the spreadsheet sent by the branches to the head office. You are required to identify the column headings for the various branches, enter data in three different spreadsheets indicating different branches and consolidate data to find total sales and average sales for each model. 3. Record a Macro that performs Bold, Underline on the Heading in Cell A1. Give macro the name BoldunderlineA1 and save it in a New Module named Basic Formatting which is created in a New Library named DocumenHeadingA1. 4. Use Macro as a function to calculate Mileage of a vehicle. Mileage (in km/L) is calculated as Distance Travelled (in km)/ Fuel filled (in Litre). Create a sheet with three columns Distance Travelled (in Km), Fuel filled (in L) and Mileage (in km/L) 5. Anushka and Niyaz have been made the class representative. Anushka has been asked to collect the class assignments for the various subjects. Create a spreadsheet to store the roll number, name of the students and subject names. Perform the following operations so that Niyaz can access the file: a) Enable Track changes b) Add comment to show the date on which the assignment has been submitted. c) Share the document with the class teacher.

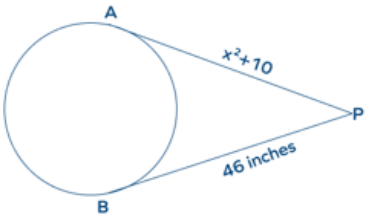
MATHEMATICS ASSIGNMENT

Chapter 10 and 11 : Circles and Areas related to circles

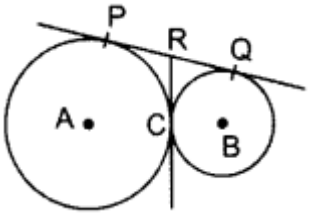
1 In the circle given below, triangle ABC is inscribed in the circle and the tangent DE meets the circle at the point B. Find the measure of angle "x" and "y."



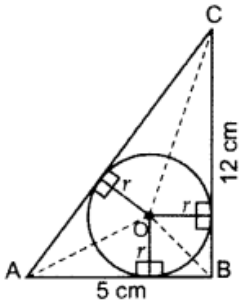
2 Find the value of "x" in the figure given below.



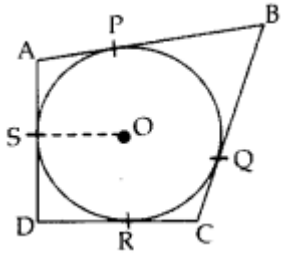
3 In the figure, two circles touch each other at the point C. Prove that the common tangent to the circles at C, bisects the common tangent at P and Q



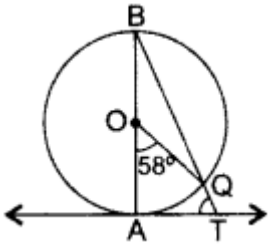
4 In a right triangle ABC, right-angled at B, BC = 12 cm and AB = 5 cm. Calculate the radius of the circle inscribed in the triangle (in cm).



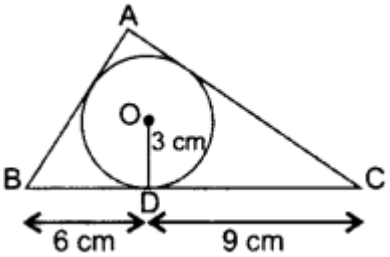
5 In the given figure, a circle is inscribed in a quadrilateral ABCD touching its sides AB, BC, CD and AD at P, Q, R and S respectively. If the radius DA of the circle is 10 cm, BC = 38 cm, PB = 27 cm and AD ⊥ CD, then calculate the length of CD..



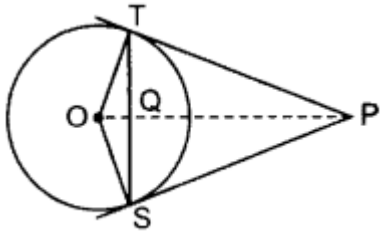
6 In the figure, AB is the diameter of a circle with centre O and AT is a tangent. If ∠AOQ = 58°, find ∠ATQ.



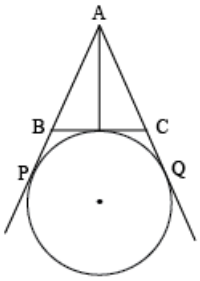
7 In the figure, a ΔABC is drawn to circumscribe a circle of radius 3 cm, such that the segments BD and DC are respectively 6 cm 9 cm of lengths 6 cm and 9 cm. If the area of ΔABC is 54 cm^2, then find the lengths of sides AB and AC.



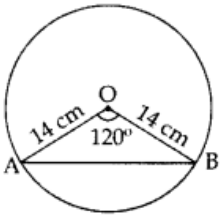
8 In the figure, from an external point P, two tangents PT and PS are drawn to a circle with centre O and radius r. If OP = 2r, show that ∠OTS = ∠OST = 30°.



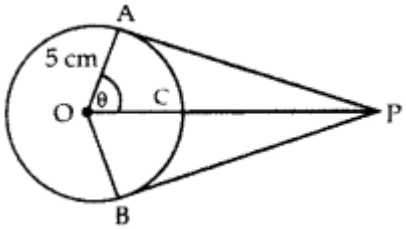
9 In the given figure, AP, AQ and BC are tangents to the circle. If AB = 5 cm, AC = 6 cm and BC = 4 cm then find the length of AP .



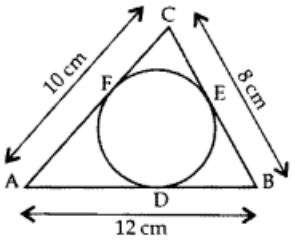
10 A chord of a circle of radius 14 cm subtends an angle of 120° at the centre. Find the area of the corresponding minor segment of the circle.



11 An elastic belt is placed around the rim of a pulley of radius 5 cm. From one point C on the belt, the elastic belt is pulled directly away from the centre o of the pulley until it is at P, 10 cm from the point O. Find the length of the belt that is still in contact with the pulley.



12 In the given figure, a circle inscribed in ΔABC touches its sides AB, BC and AC at points D, E & F K respectively. If AB = 12 cm, BC = 8 cm and AC = 10 cm, then find the lengths of AD, BE and CF.



Chapter 12. SURFACE AREAS & VOLUMES

13 If the numerical value of the volume is equal to the numerical value of the curved surface area, and the height of the cylinder is 5cm find the diameter of the cylinder.

14 During one of the holiday seasons, four friends Rahul, Arun, Ajay, and Vijay went for a picnic at a hill station. However, because of the peak season, they did not get a proper Hotel in the city. They finally decided to make a conical tent at a park as the weather was quite nice. They had a 200 sq. m cloth with them with which they made the conical tent with a height of 8m and a diameter of 12m. The remaining cloth that was left was used for the floor.

1. Find the slant height of the tent.
2. How much cloth was used?
3. Find the volume of the tent
4. Find the area of the tent

15 Volume and surface area of a solid hemisphere are numerically equal. What is diameter of hemi sphere ?

16 The radius of the base of a cylinder is doubled and the height remains unchanged, its curved surface area becomes:

(a) double (b) three times

(c) half (d) no change .

17 Find the volume of the largest right circular cone that can be cut out of a cube whose edge is 8 cm

18 Due to heavy floods in a state, thousands were rendered homeless. 50 schools collectively offered to the state government to provide place and the canvas for 1500 tents to be fixed by the government and decided to share the whole expenditure equally. The lower part of each tent is cylindrical of base radius 2.8 m and height 3.5 m, with conical upper part of same base radius but of height 2.1 m. If the canvas used to make the tents costs ₹ 120 per sq. m, find the amount shared by each school to set up the tents. What value is generated by the above problem?

19 The 3/4 th part of a conical vessel of internal radius 5 cm and height 24 cm is full of water. The water is emptied into a cylindrical vessel with internal radius 10 cm. Find the height of water in cylindrical vessel.

20 A wooden toy is in the shape of a cone T mounted on a cylinder. The total height of the toy is 26 cm, while the height of the conical part is 6 cm. The diameter of the base of the conical part is 5 cm and that of cylindrical part is 4 cm. The conical part and the cylindrical part are respectively painted.red and white. Find the area to be painted by each of these colours.

Chapter 13. STATISTICS

21 In a continuous frequency distribution, the median of the data is 21. If each observation is increased by 5, then find the new median.

22 The mean of the following frequency distribu tion is 53. But the frequencies f_1 and f_2 in the classes 20-40 and 60-80 are missing. Find the missing frequencies:

Classes	*Frequencies*
0–20	15
20-40	f_1
40-60	21
60-80	f_2
80-100	17
Total	**100**

23 Mode of the following frequency distribution is 65 and sum of all the frequencies is 70. Find the missing frequencies x and y.

Class	*Frequency*
0–20	8
20–40	11
40–60	x
60–80	12
80–100	y
100–120	9
120– 140	9
140-160	5

24 Consider the following distribution, find the frequency of class 30-40.

Marks obtained	*No. of Students*
0 or more	63
10 or more	58
20 or more	55
30 or more	51
40 or more	48
50 or more	42

25 A medical camp was held in a school to impart health education and the importance of excercise to children. During this camp, a medical check of 35 students was done

Weight (in kg)	*No. of Students*
below 40	3
below 42	5
below 44	9
below 46	14
below 48	28
below 50	31
below 52	35

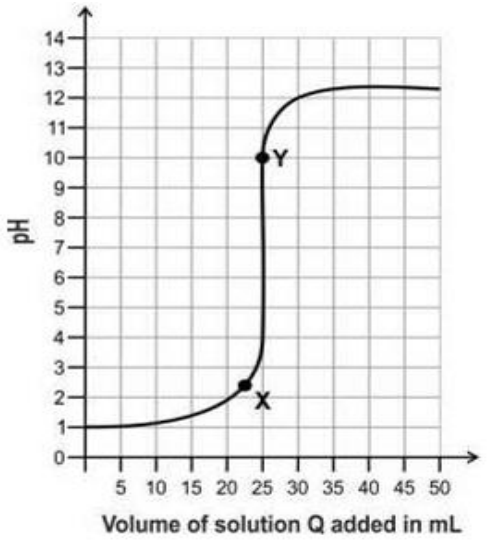
Compute the modal weight.

PHYSICS ASSIGNMENT

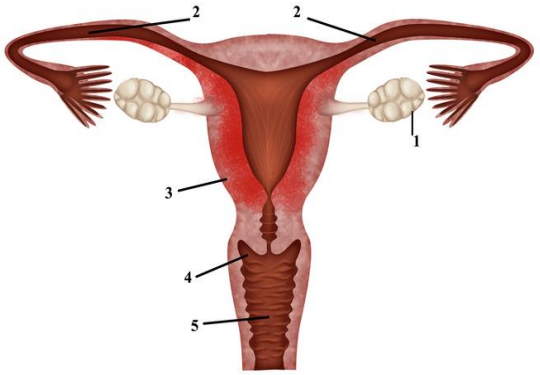
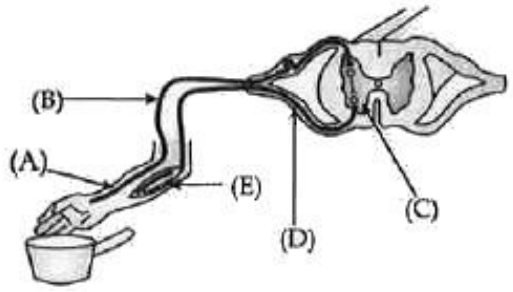
Answer the following questions in your Physics Notebook:

1	Explain the electric current by giving an explanations of the flow.
2	How much work is done in moving a charge of 2 C across two points having a potential difference 12V?
3	Write Ohm's law.
4	Write SI unit of electric resistance and define one ohm resistance.
5	Write the relation between electric resistance and electric current and explain variable resistance and rheostat.
6	100 J of heat is produced each second in a 4 W resistance. Find the potential difference across the resistor.
7	What is called watt hour and define kilowatt ?
8	An electric refrigerator rated 400 W operates 8 hour/day. What is the cost of the energy to operate it for 30 days at rupees 3.00 per kWh ?
9	An electric iron consumes energy at a rate of 840 W when heating is at the maximum rate and 360 W when the heating is at the minimum. The voltage is 220 V. What are the current and the resistance in each case?
10	An electric bulb is connected to a 220 V generator. The current is 0.50 A. What is the power of the bulb ?

	CHEMISTRY - ASSIGNMENT ***Write Answers of following questions given below-***	
1.	In one of the industrial processes, used for manufacture of sodium hydroxide, a gas X is formed as by-product. The gas 'X' reacts with dry slaked lime to give a compound 'Y' which is used as bleaching agent in textile industry. Identify X and Y.	
2.	An excess of carbon dioxide gas is bubbled through lime water. (a) Will the pH of lime water change? If yes, how? Explain your answer.	

	(b) Write the balanced equation for the reaction.	
3.	Tanu takes 500 mL milk each in two bowls P and Q. She adds curd to both the bowls and baking soda only to bowl Q as shown below. (a) Bowl P - 500 mL milk + 1 teaspoon curd (b) Bowl Q - 500 mL milk + 1 teaspoon curd + 1 teaspoon baking soda In which bowl will the milk form into curd faster? Explain your answer.	
4.	A solution P is taken in a flask and two drops of phenolphthalein indicator is added to it. The graph below shows how the pH of the mixture changes as a solution Q is added dropwise to the flask with stirring. (a) Identify the nature of solutions P and Q. (b) What will the colour of the solution in the flask be at points X and Y? (c) Identify the type of reaction taking place in the flask. 	
5.	Aditi adds 1 mole of dilute hydrochloric acid to an aqueous solution of 1 mole of sodium carbonate. (a) Write the balanced equation for the reaction that takes place. (b) How will the colour of a red litmus and a blue litmus paper change when dipped in this mixture? Explain why.	
6.	Photographic film consists of a gelatin emulsion with silver halide grains layered onto a film base. The halides that are used are silver chloride, bromide or iodide. The photographic film is usually stored in metal containers to protect it from light. Write the chemical equation for the possible chemical reaction that this method of storing photographic film is preventing.	
7.	Trupti mixed one teaspoon of baking soda in 500 g of cake mixture. She kept the mixture aside for 5 minutes. Geeta mixed one teaspoon of baking powder in 500 g of the same cake mixture. She also kept the mixture aside for 5 minutes. She then baked the two cakes together in the same oven. Whose cake is likely to rise higher? Justify your answer.	
8.	While cooking in an aluminum vessel, Sudeshna burned some food till all that was left was a completely charred and black residue. She just left the blackened vessel heating on the stove. After an hour she found that the vessel was completely clean, with no trace of any blackness. (a) Write a chemical equation to explain what happened to the charred, black residue that made it disappear. (b) Name the type of reaction referred to in (a).	
9.	State the reason for the following: (a) Aluminium oxide is called an amphoteric oxide. (b) An iron strip dipped in a blue copper sulphate solution turns blue pale green solution. (c) Hydrogen gas is not evolved when most metals react with nitric acid. (d) Calcium does not occur in free state in nature.	

10	Given below are the steps for the extraction of copper from its ore. Write the chemical equation of the reactions involved in each case. (i) Roasting of copper (I) sulphide	

	(ii) Reduction of copper (I) oxide with copper (I) sulphide (iii) Electrolytic refining	
	BIOLOGY - ASSIGNMENT ***Write Answers of following questions given below-***	
1.	How Do We Detect the Smell of an Agarbatti (Incense Stick)?	
2.	Why is the Use of Iodised Salt Advisable?	
3.	Why are Some Patients of Diabetes Treated by Giving Injections of Insulin?	
4.	How does binary fission differ from multiple fission?	
5.	 Label the given parts of female reproductive system and write their functions.	
6.	What could be the reasons for adopting contraceptive methods?	
7.	Why does menstruation occur?	
8.	 With the help of above diagram explain what is reflex arch and how does it work?	
9.	How Do Auxins Promote the Growth of a Tendril Around a Support?	
10.	Why is it necessary to separate oxygenated and deoxygenated blood in mammals and birds?	