**M.R VIVEKANANDA MODEL SCHOOL, Sector – 13 Dwarka**

**HOLIDAY HOMEWORK**

**CLASS – 12 (2019-20)**

**Dear parents,**

**The most awaited Summer Break is from 18h May to 28th June. As per forecast by weather department the temperature will rise more and warm breeze (Loo) will blow. We suggest the following measures to remain healthy and hydrated:**

* **Wear cotton clothes, consume more liquids and water, go for morning walks and remain indoors. We want our students to utilize this time by**
* **Remain indoor for most of the time read newspapers, spend value time with elders and grandparents, help parents with daily chores, watch TV channels like National Geographic and Discovery.**

**Teachers have planned interesting, creative and knowledgeable home work.**

**Ensure that your ward does the Holiday Homework on his/her own using innovations. Guide and assist them only.**

**Principal**

**SUBJECT – ENGLISH**

**DATE OF SUBMISSION : 01ST WEEK OF JULY**

**1. Read any newspaper daily. Pick 2 articles of relevance of social issues. Paste them in your Class Work notebook**

**and write a letter to the editor based on the respective articles.**

**2. Write an Article for the school magazine in about 150-200 words on the given topics.**

**i) Evils of Gender – Bias**

**ii) Examination paves way for success**

**iii) Honour Killings: A stigma on modern society**

**iv) Menace of corruption**

**3. Write a speech in about 150 words - i) Freedom of press gone too far**

**ii) Humour is the best way to resolve conflict iii) Effective listening is more important than talking**

**iv) Pressure is good for self-development**

**1. Draft the following advertisements :**

**a) You are Aditya Kumar, The General Manager of The Gulmohar Tree hotel, in**

**Sector 55 Gurgaon. You need a front office assistant with good spoken English**

**skills and knowledge of computers. Draft a classified advertisement for the local**

**newspaper.**

**b) You have a travel and tours company called All India Tours, MG Road**

**Bangalore. Draft an advertisement for summer tours to places within India.**

**2. Write the following letters:**

**a) You wish to place an order for air conditioners, water coolers, air purifiers for**

**your office in HauzKhas from Croma C-10, Gurudwara Rd, Nanak Pura, Rajouri**

**Garden, New Delhi-110027 You are Sudipta Roy/ SrishtiRai the Manager of „The**

**Crafters,‟ 21, HauzKhas Market, New Delhi.**

**b) Write a letter cancelling the above order. Give suitable reasons.**

**c) Write a letter of complaint to the Secretary of your Resident Welfare association**

**regarding the growing lawlessness in your colony. You are Ravi Raj/ Ravina Raj**

**of Greenwood Colony, New Delhi.**

**d) You bought sewing machines for your tailoring unit from „The Best Sewing**

**Machine Company‟, 10.NaiSarak, ChandniChowk , Delhi. Three of those**

**sewing machines have developed problems in functioning. Write a letter of**

**complaint. You are Sam Sethna of The True Form Tailors, 21 Lajpat Nagar, New**

**Delhi.**

**3. Answer the following questions briefly in 30-40 words each:**

**a. The poem „My Mother at Sixty- Six‟ has many references to ageing and**

**death. Mention any two.**

**b. What does Stephen Spender want for the children of the slum?**

**c. “… these windows not this map their world” What is the point being made by**

**the speaker.**

**d. What does Pablo Neruda mean by the lines „green wars, wars with gas, wars**

**with fire'?**

**4. Answer the following questions in 30-40 words each:**

**a. Explain how politicians exploit the poverty of the rag pickers of Seemapuri.**

**b. “This is your last French lesson.” How does Franz react to this statement by**

**his teacher?**

**c. Why did the rattrap peddler sign the letter for Edla as Captain Von Stahle?**

**d. Why do the servants criticize Sadao?**

**e. What is Mukesh‟s dream? Why is it difficult for children of bangle makers to**

**dream of doing something other than bangle making?**

**5. Answer the following question in 120-150 Words:**

**a) William Douglas tells us the way to fight fears. Explain with reference to the**

**lesson.**

**b) Why does the rattrap peddler finally change? What causes the change?**

**c) Describe the quality of life of the children in the slums of Seemapuri and that of**

**the bangle makers of Ferozabad?**

**d) M Hamel‟s role as a teacher changes in the story, „ The Last Lesson‟ Discuss**

**e) Write a comparative account of Sadao and the General bringing out the**

**differences between the two.**

**\*The assignments given in the class will also be checked .**

**MATHS**

**Assignment 1**:

1. **Evaluate each of the following:**

Q1. Sin-1( Sin ) + Tan-1( Tan) Q2. Cos (Sin-1) Q3. Cos(Sec-1) + Cos(Cosec-1)

**Prove the following**

Q4. Tan-1 ( ) = - ; < x <

Q5. Tan-1 ( ) = - Cos-1 x ; 0< x < 1

**Write the following functions in the simplest form:**

Q7. Tan-1 ( ); -a < x <a Q8. Tan-1( ) ; -a < x < a

Q9. Tan-1( ); x < Q10. Tan-1( ); - < x <

**Prove the following:**

Q11. Tan-1 ( ) + Tan-1 ( ) = Tan-1 () Q12\*. Cot-1 (7) + Cot-1 (8) + Cot-1 (18) = Cot-1 (3)

Q13. Sec2 (Tan-1) + Cosec2 (Cot-1) = 15 Q14. Sin { Tan-1 + Cos-1 } = 1

Q15. Cos [ Tan-1 { Sin ( Cot -1x )} ] = Q16. Tan [ + Cos-1 ] + Tan [ - Cos-1 ] =

Q17\*. If a > b > c > 0 then prove that Cot -1 ( ) + Cot-1 ( ) + Cot-1 () =

Q18. If x = Cosec [Tan-1 { Cos ( Cot -1( Sec (Sin-1a) ) )} and y = Sec [Cot-1 { Sin ( Tan -1( Cosec (Cos-1a) ) )} where a [ 0, 1].

Find the relation between x and y in term of ‘a’.

Q19\*. If Cos-1 ( ) + Cos-1 ( ) = , prove that : - Cos + = Sin2

**Write in the simplest form:**

Q20. Cot-1 ( - x ) Q21. Sin-1 ( x - )

**Anwers: (1) (2) (7) Sin- 1 (8) Cos- 1 (9) Tan- 1 + Tan- 1x (10) Tan- 1 – x (20) + Tan- 1x (21) Sin- 1x – Sin- 1**

**Assignment 2:**

Q1. If A = [aij], where aij = construct a 3 2 matrix A.

Q2. If A is a square matrix such that A2 = A, then find (I + A)3 – 7A

Q3. Find x , y and z if transpose of is

Q4. Construct a 2 3 matrix, A = [aij], whose elements are given by : aij =

Q5. Find x,y .z and t, if 2 + 3 = 3

Q6. Find the values of x and y if the matrix is symmetric matrix

Q7. Using elementary operations find inverse of

(i) (ii)

Q8. Find matrix A such that A = Ans:

Q9. If A = , then prove that An = ; n N

Q10. If A = , then prove that An = ; n Z +

Q 11 Express as the sum of symmetric and skew symmetric matrix.

Q12 Using Elementry transformation find the inverse of

**Assignment 3:**

Q1. Let A be a square matrix of order 3 3 and if |A| = 5 then find:

(i) |kA| (ii) |Adj.A| (iii) |A Adj.A| (iv) |2A’| (v) Find k if |kA| = 625

Q2. For the matrix A = Show that A3 – 6A2 + 5A + 11I = O. Hence, find A-1

Q3 (a). If A = , find A-1. Using A-1 Solve the system of equation: 2x + 3y + z =6; -3x + 2y + z = 0 ; 5x – 4y -2z = -1 Ans: [ 1 , 1 , 1 ]

Q3 (b). Compute A-1 for A = , hence solve the system of eqs: y + 3z +11 = 0; 2x + 4y +2z + 16 = 0; 2x + 3y + z + 11 =0

Q4. Using product of to solve the system of equations

x – y + 2z = 1; 2y – 3z =1; 3x – 2y + 4z = 2 Ans: ( x = 0, y = 5, z = 3)

Q5. The sum of three numbers is 6. If we multiply third number by 3 and add second number to it, we get 11. By adding first and third numbers, we get doubleof the second number. Represent it algebraically and find the numbers using matrix method. Ans: ( x = 1, y = 2, z = 3)

Q6. A school wants to award its students for the values of Honesty, Regularity and Hardwork with a total cash award of 6,000. Three times the award money for Hardwork added to that given for Honesty amounts to 11,000. The award money given for Honesty and Hardwork together is double the one given for Regularity. Represent the above situation algebraically and find the award money for each value, using matrix method. Apart from these values, namely, Honesty, Regularity and Hardwork, suggest one more value which the school must include for awards. ( x = 500, y = 2000 and z = 3500)

1. Q7. Prove that: (i) = ( 1 + a2 + b2)3
2. (ii) = 1 + a2 + b2 + c2(iii) = 2xyz ( x + y + z)3
3. Q8. Prove that: = ( 1 – x2)

Q9. Find matrix A such that A =

**PHYSICS**

1. DO ASSIGNMENT CHAPTER 1 TO 4
2. DO FOLLOWING EXPRIMENTS IN LAB MANUAL

List of Practicals

**SECTION A: Experiments**

1. To find resistance of a given wire using metre bridge and hence determine the specific resistance of its material
2. To determine resistance per cm of a given wire by plotting a graph of potential difference versus current.
3. To verify the laws of combination (parallel) of resistances using a metre bridge.
4. To verify the laws of combination (series) of resistances using a metre bridge.
5. To compare the EMF of two given primary cells using potentiometer.
6. To determine the internal resistance of given primary cell using potentiometer.
7. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
8. To find the frequency of the a.c. mains with a sonometer.

**SECTION B: Experiments**

1. To find the value of v for different values of u in case of a concave mirror and to find the focal length.
2. To find the focal length of a convex mirror, using a convex lens.
3. To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v.
4. To find the focal length of a concave lens, using a convex lens.
5. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
6. To determine refractive index of a glass slab using a travelling microscope.
7. To find refractive index of a liquid by using concave mirror,
8. To draw the I-V characteristic curve of a p-n junction in forward bias and reverse bias.
9. SUGGESTED LIST OF PROJECTS
   1. Roll no 1-3 Logic Gates
   2. Roll no 4-6 transformer
   3. Roll no 7-9 Factor affecting internal resistance of a cell
   4. Roll no 10- 12 Verification of coulomb law
   5. Roll no 13- 15 Affect of temperature on semi conductor
   6. Roll no 16-18 Refractive index of water
   7. Roll no 19-21 Refractive index of oil
   8. Roll no 22- 24 Affect of temperature on conductor
   9. Roll no 25-27 Refractive index
   10. Roll no 29-30 LDR
   11. Roll no 31-33 Tangent galvanometer
   12. Roll no 34-36 Angle of deviation using hollow prism of different fluid

**CHEMISTRY**

* + 1. Do experiments in lab manual
       1. Colloidal solution of starch
       2. Chromatography
       3. 3 titration
       4. Effect of concentration on rate of reaction
    2. Do investigatory file according to given topic
    3. Prepare chapter 1-4.

**BIOLOGY**

1. Prepare Unit 1 and unit 2
2. Complete your practical file.
3. Prepare an investigatory project on given topic each topic must include any two case studies
   * + 1. Drug addiction
       2. Infertility in human male and female (causes, treatment and ARTs)
       3. DNA finger printing
       4. Genetic disorders
       5. Cancer/ HIV Aids/ Hepatitis (any one)
       6. Application of biotechnology in India
       7. Human Evolution
       8. Effect of pollution in Delhi/ water problem in Delhi

Investigatory project should consist of the following:

1. Project must be hand written and supplemented with relevant diagrams and photographs.
2. Case studies, graphs etc
3. Further scope of the investigation.
4. Log book to write observations
5. bibliography

**Class- XII ( Commerce) Subject-Accountancy**

1. **Project work:-**

**Note:- The comprehensive project may contain simple GST calculations.**

1. **Project-1 (COMPREHENSIVE PROJECT)**

**Create a virtual company and list out all possible transactions (atleast 30 ) to show the financial condition and financial position of that company. You are required to prepare a project file showing recording, classification , summarizing, analysis and interpretation of results to the potential users. So prepare the followings for all the transactions which were done by the company:-**

1. **Journal**
2. **Ledger**
3. **Trial Balance**
4. **Final Accounts i.e. Profit and Loss Account & Balance Sheet**
5. **Graphical Presentation of :-**
6. **Net Profit in proportion to Revenue from operation**
7. **Classification of assets**
8. **Classification of liabilities**
9. **Solve the following questions:-**
10. **X,Y,Z are partner. They admitted W as a partner. W’s Share of goodwill is Rs. 24000 out of which he brought Rs.12000 only as he fell short of cash because he had deposited his sister’s school admission fees. X,Y,Z did not objected to it. Identify the value in this case.**
11. **X, Y, Z entered into partnership on 1st July, 2015 to share Profit and Losses in the ratio of 3:2:1. X personally guaranteed that Z’s share of profit after charging interest on capital @6% p.a. would not be less than Rs. 36000 p.a.. The capital contributed by X- Rs.200000; Y- Rs. 100000 and Z- Rs.100000. Profit for the year ended on 31st March,2016 was Rs. 138000. Prepare Profit & Loss Appropriation account.**
12. **A, B and C are partners in a firm. They had omitted interest on capital @10% p.a. for three years ended 31st March, 2013. Their fixed capitals on which interest was to be calculated throughout were:**

**A Rs.1,00,000**

**B Rs. 80,000**

**C Rs. 70,000**

**Give the necessary adjusting journal entry with working notes.**

1. **State any two occasions on which a firm may be reconstituted.**
2. **X,Y and Z were partners in a firm. Their capitals on 1st April, 2012 were: X Rs.2,00,000; Y Rs.2,50,000 and Z Rs.3,00,000. The partnership deed provided for the following:**

**(i) They will share profits in the ratio of 2:3:3**

**(ii) X will be allowed a salary of Rs.12,000 p.a.**

**(iii) Interest on capital will be allowed @ 12% p.a.**

**During the year X withdrew Rs.28,000; Y ` Rs.30,000 and Z Rs.18,000. For the year ended 31.3.2013 the firm earned a profit of Rs.5,00,000.**

**Prepare Profit and Loss Appropriation Account and Partner’s Capital Accounts.**

1. **R, S, and T entered into a partnership of manufacturing and distributing educational CD’s on April 01, 2006. R looked after the business development, S content development and T financed the project. At the end of the year (31-03-2007) T wanted an interest of 12% on the capital employed by him. The other partners were not inclined to this. How would you resolve this within the ambit of the Indian Partnership Act, 1932?**

**A, B and C are partners in a firm. A withdrew Rs. 1000 in the beginning**

**Class- XII ( Humanities) Subject- Retail**

**1.Prepare a project file(File-1) with the following content:-**

**(a) Briefly introduction of---**

**(i) Retail and Retail sector**

**(ii) Types of Retailer**

1. **Organised (b) Unorganised**

**(iii) Display of Products ( Session-1)**

**(iv) Sale and delivery of Products (Session-2)**

**(v) Maintenance of Store Area & Communicate effectively with**

**stakeholders.**

**(vi) Duties and Responsibilities of Sales Supervisor (session-4)**

**File-2**

1. **Choose a store (any type) with the followings:-**
2. **Name (b) Location (c) Logo (d) Vision with USP**
3. **Product offerings**
4. **Brands offered**
5. **Display of Products( Window & Indoor)**
6. **Housekeeping**
7. **Marketing (Advertising, Sales Promotion etc.)**
8. **Delivery of Products:- (a)Telemarketing (b) Home delivery**

**(c ) Over the counter Sale**

1. **Point of sales (Unit-3)**
2. **Techniques used**
3. **Equipments or tools of POS**
4. **Inventory Handling in your store ( Unit-5)**

**Note:- file should be in A4 size multicoloured sheets. Presentation is having 10 marks. So make it simple but attractive.**

**POLITICAL SCIENCE**

* **Watch the news on National and International news channels.**
* **Revise the syllabus done till date and read the chapters of both textbooks.**
* **Prepare a powerpoint presentation on the following topic.**

**[Chapter 8 book-1]**

**Environment and natural resources**

* **Environment movement and evolution of global environmental norms.**
* **Conflicts over traditional and common property resources.**
* **Rights of indigenous people.**
* **India’s stand in Global environment debates.**

Physical Education

**1. Lesson 1 to 3 Extra questions Answers write in your physical education notebook**

**2. Record fill shall include:.**

**(a) Modified AAHPER administration for all items .**

**(b) conduct borrow 3 item test on test 10 students .**

**(c) Procedure for Asanas benefits &contraindication for any two asanas each lifestyle disease.**

**(d) Procedure for administering senior citizen fitness test for 5 eaderly family members.**

**(e) Labelled diagram of 400 mtr track & field with computation .**

**(f) Any one game of your choice out of the list above labeled diagram of field any equipoment**

**Rules terminowgies & skills.**

* **Our Expectations from Parents**
* **Dear Parents,**
* **Our school management and teachers try to instil soft values in our students in their daily routine**
* **like caring and sharing , good relationships and mutual respect etc. We request all parents to reinforce such values in their wards during summer vacations and thereafter.**
* **So please take care of the following:**
* **1. Parents are requested to spend some quality time with their children .**
* **2. Get some good storybooks with colourful pictures for your ward and tell your child to read them**
* **regularly.**
* **3. Let them sow some seeds / a plant and look after the plant regularly and watch them grow.**
* **4. Let your ward spend minimum time in T.V , using mobile phones, internet and other electronic gadgets.**
* **5. Encourage them to write two pages transcriptions daily to improve their handwriting .**
* **6. Give stress on practicing one moral value daily.**
* **7. Encourage your child to help you in small thingsrelated to Kitchen/Cleanliness.**
* **8. Discourage your child to eat fast food like burger, pizza and carbonated drinks.**
* **9. Allow your child to play outdoors games as it helps to make them strong.**
* **10. Plan a holiday trip with your family for recreation.**
* **Wishing you Happy and fruitful holidays.**

**Principal**