

# **BHATNAGAR INTERNATIONAL SCHOOL**

**PASCHIM VIHAR**

## **HOLIDAY HOMEWORK STREAM - HUMANITIES CLASS – XI (2020-21)**

**Dear Students**

**It's time again for a rejuvenating summer break. As a global community we are facing unprecedented changes to our daily lives, leaving us looking for new ways to spend our time creatively.**

**Investing time in learning and development is one thing that can be controlled. Now is the time to expand your knowledge base, upskill and even reskill.**

- **The COVID times have upended family life around the world. Bond with your family members by spending quality time with them.**
- **Exercising improves strength and agility. Yoga will help you detox and boost your stamina.**
- **Enjoy growing plants that emit oxygen like tulsi and aloe vera.**
- **Painting and sketching soothes your mind in a creative way.**
- **Reminiscing memorable times put your collection of pics in collages. You may make videos clubbing pics together.**
- **It is always a great idea to get engrossed in a captivating book. Read and enhance your knowledge with genres that interest you.**
- **Learning a new language gives you an edge over others. Opt for online classes and apps like Duolingo that offer simple ways to learn a new language.**
- **Put your game face on. The charm of evergreen board games bond families together.**
- **Whip simple recipes for your loved ones.**
- **Indulge your thinking nuggets to the best by creating your own blogs.**

**When you're going through challenging times**

**Act instead of talking**

**Show instead of telling**

**Prove instead of promising.**

**IT'S TIME FOR INTROSPECTION , RESILIENCE AND FAITH**

## SUBJECT : ENGLISH

India is a land of people of diverse cultures and it is imperative to maintain and strengthen the fabric of traditionally emotional bonds between the people of our country so that a spirit of national integration is promoted. It is only through initiatives like “Ek Bharat Shreshtha Bharat” that people can understand and appreciate this glorious manifestation of diverse cuisine, music, dance, theatre, movies and films, handicrafts, sports, festivals, paintings, sculptures etc. will enable people imbibe the innate chord of binding and brotherhood.

### LINK LESSON: Ranga’s Marriage

1. Create a scrap file on the chapter, replete with pictures giving detailed summary and character sketch of one of the main characters.
2. Record a V LOG featuring the scenic state of Sikkim and it’s various facets ( include food, culture, language, people etc).  
(Presentation, Creativity, Originality and Content must be taken into account while creating the V LOG).
3. Write a descriptive paragraph on Sikkim in 100 -120 words on A-4 size sheet.

## SUBJECT :MATHS

Make an online project on the topic Sets covering

- Introduction of sets
- Types of sets
- Concept of subsets
- Union and Intersection of sets
- Properties of sets with relevant examples.

Please note: Digital project should be in the form of PowerPoint Presentations with minimum 15 slides

## MATHS ASSIGNMENT

### Relations and Functions

Q1. Find the domain and range of the following functions:

$$(i) \quad f = \left\{ \left( x, \sqrt{9-x^2} \right) : x \in R \right\}$$

$$(ii) \quad f = \left\{ x, \frac{x^2-1}{x-1} : x \in R, x \neq 1 \right\}$$

Q2. Find the domain of  $f(x) = \frac{1}{(x-2)(x-3)}$ .

Q3. Let  $f = \left\{ \left( x, \frac{x^2}{1+x^2} \right) : x \in \mathbf{R} \right\}$  be a function from  $\mathbf{R}$  into  $\mathbf{R}$ . Determine the range of  $f$ .

Q4. Find the domain of each rational functions

(i)  $f(x) = \frac{x-2}{x-3}$       (ii)  $g(x) = \frac{2x-5}{x^2-9}$ .

Q5. The domain of the function  $f(x) = \frac{\sin^{-1}(x-3)}{\sqrt{9-x^2}}$  is

- (a)  $[1,2]$       (b)  $[2,3]$       (c)  $[2,3]$       (d)  $(1,2)$

Q6. (i) Find the domain of  $f(x) = \frac{1}{\sqrt{x+|x|}}$ .

(ii) Find the range of  $f(x) = 1 + 3\cos 2x$ .

Q7. Find the range of the function  $f(x) = \frac{x+2}{|x+2|}$   $x \neq -2$ ,

Q8. Find the domain of  $f(x) = \frac{x+7}{x^2-8x+4}$ .

Q9. Find the domain and range of  $f(x) = \frac{1}{\sqrt{9-x^2}}$ .

Q10. Find the domain of each of the following functions given by

(i)  $f(x) = \frac{1}{\sqrt{1-\cos x}}$

(ii)  $f(x) = \frac{1}{\sqrt{x+|x|}}$

(iii)  $f(x) = x|x|$

(iv)  $f(x) = \frac{x^3-x+3}{x^2-1}$

(v)  $f(x) = \frac{3x}{28-x}$

## **SUBJECT : PHYSICAL EDUCATION**

Q1. Write any one game of your choice out of the list below .

- Basketball
- Football
- Handball

- Hockey

Including : -

- 1 History of the game
- 2 Draw a neat diagram of field / court
- 3 Rules and Regulations
- 4 Fundamental skills of the game
- 5 Terminology of the game
- 6 Sports personalities of the game
- 7 Important Tournament of the game

**Q2** Write the list and explanation of the current National Awardees ( Dronacharya , Arjuna , Rajiv Gandhi khel ratan)

**Q3** Make a list of 5 Major Sport with Five sport personalities of each game and Make a poster A-3 sized of any one player of any game

**Q4** Learn chapter

1. CHANGING TRENDS & CAREERS IN PHYSICAL EDUCATION
2. OMPLYIC VALUE EDUCATION
3. PHYSICAL FITNESS, WELLNESS & LIFESTYLE

## **SUBJECT : PAINTING**

1. Create the illustrations from any of the story book you prefer to choose. You can choose from the variety of fairy tales that has more of illustrations than the story description.

**INSTRUCTIONS :**

1. The story book should contain 8 to 10 pages including the Cover Page.
2. You can use normal sized art file sheets, be it cartridge or ivory sheets.
3. Only painting medium required namely Acrylic paints, water colours, poster colours, photo colour paints.
4. Only the illustrations required and should be self explanatory. No written material.
5. Examples of the story books can be Rapunzel, Snow white and the seven dwarfs, little red riding hood, beauty and the beast etc.

## **SUBJECT : ECONOMICS**

(A) Project work in form of Power Point Presentation

Topics (select any one)

1. Theory of Demand
2. Production Possibility frontier
3. Consumer's and Producer's equilibrium
4. Forms of market and Price Determination
5. Theory of supply

Format for the Presentation

1. Title page
2. Table of Contents
3. Acknowledgement
4. Introduction

5. Learning objectives of the study
6. Research Methodology / Collection of data
7. Conceptual framework
8. Presentation of data
9. Learning Outcomes of the study
10. Bibliography

## **ECONOMICS ASSIGNMENT**

- Q 1. Write the assumptions of production Possibility curve.
- Q 2. Discuss the factors affecting Law of Demand.
- Q 3. What are substitute goods and complimentary goods?
- Q 4. Explain the central problems of 'what to produce' with examples.
- Q 5. Explain the central problem of distribution in an economy.
- Q 6. What is market demand?
- Q 7. What are giffen goods and inferior goods?
- Q 8. What is a marginal rate of transformation? Explain with help of an example.
- Q 9. Why should there be huge unemployment in India when scarcity of resources is a universal fact?
- Q 10. Why demand curve shifts?
- Q 11. What do you mean by economizing of resources?
- Q 12. Make in India campaign would shift the PPC to the right. How?
- Q 13. State in brief the problem of fuller utilization of resources.
- Q 14. Explain the causes for leftward shift of demand curve.
- Q 15. Distinguish Between Individual demand and market demand.
- Q 16. Explain with the help of diagrams, the effect of the following on demand for a good.
  - (1) Rise in Income of its buyers
  - (2) Fall in income of its buyers
- Q 17. Define Scarcity.
- Q 18. What is Economic problem?
- Q 19. Explain the terms Consumption, Production and Investment.
- Q 20. What is the importance of statistics?

## **SUBJECT : POLITICAL SCIENCE**

Prepare a digital project on topics discussed in the class.

## **POLITICAL SCIENCE ASSIGNMENT**

ATTEMPT THE FOLLOWING ASSIGNMENT:-

- 1 How is Political Theory useful to us? Elaborate with 4 points
- 2 Why do you think that the powers and functions of every organ is clearly demarcated in constitution?  
What would happen if this was not done?

- 3 Discuss 3 dimension of justice.
- 4 When children are forced to work as child labour's and therefore they eventually become drop-outs, which Fundamental Right gets violated and why?
5. Write a note on national human Rights commission.
6. Does the principle of considering the special needs of people conflict the principle of equal treatment for all?
7. Discuss the Right to Equality as given in the constitution.
8. What is just society in the words of Dr.B.R.Ambedkar?
9. What are the objectives of Indian Constitution?
10. What are Directive Principles? How are they related to Fundamental Rights?
11. Find differences between negative n positive aspects of liberty.
12. What is meant by social constrain? Are the constrain of any kind necessary for enjoying freedom?
13. "Right to Freedom is a cluster of several rights" Explain.
14. Discuss simple majority representative system.
15. How does the Election Commission recognize the regional party?
16. What is the role of state in upholding freedom of its citizens?
17. Sometimes criticism has taken place against Universal Adult Suffrage. Explain them.
18. What do you mean by Right against exploitation?
19. Why is it necessary for a country to have a clear demarcation of power and responsibilities in the constitution? What would happen in the absence of such demarcation?
20. Express yourself in a form of poster / graffiti/ slogan any one
  - a. Freedom
  - b. Equality
  - c. Justice

## **SUBJECT : PSYCHOLOGY**

- Q1. An autobiography is story of your life. Your holiday homework is to write an autobiography. You may write it in a conversation or story style .Share your photographs , family pictures etc .Feel free to write about any significant event that you have experienced and what you learnt from it .  
(use A4 size coloured paper , may use coloured pens / sketch pens etc )
- Q.2. Write an essay upon Positive Psychology ( 300 words ) .

## **PSYCHOLOGY ASSIGNMENT**

### **CHAPTER-1, WHAT IS PSYCHOLOGY?**

#### **PART –A**

- Q1) Define the Following terms-

- |                             |                    |
|-----------------------------|--------------------|
| a) Cognitive approach.      | g) Psychology.     |
| b) Consciousness.           | h) Introspection.  |
| c) Gestalt psychology       | l) Stimulus.       |
| d) Neuro psychology         | j) Constructivism. |
| e) Psychoanalysis           | k) Mind.           |
| f) Physiological psychology |                    |

PART –B

Q2) Distinguish between-

- a) Mental process and Experience.
- b) Cognitive approach and humanistic approach.
- c) Clinical psychology and health psychology.
- d) Counseling psychology and school/educational psychology.
- e) Basic and applied psychology.
- f) Scientific and non-scientific psychology.
- g) Functionalism and structuralism.

PART –C

Q1) Who established first psychological laboratory and when?

Q2) Trace psychology as a science.

Q3) On what basis research and application used in psychology. Explain?

Q4) what are the goals of psychology?

PART -D

Q1) How you consider psychology as a science on the basis of studying behavior, experience, and mental process. Explain?

Q2) Discuss the subject matter of psychology and its application in everyday life?

Q3) Trace the status of psychology as social science and natural science.

Q4) How psychology is related with other disciplines. Explain?

Q5) Explain the evolution of psychology as a modern discipline?

Q6) What is behaviour? How overt behavior is different from covert behaviour. Explain with an example?

## **SUBJECT: INFORMATICS PRACTICES**

### **DIGITAL PROJECT WORK (25 marks)**

Surf the internet and make a mini project on ARTIFICIAL INTELLIGENCE

covering the following topics:

Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive experience (AR, VR), Robotics, Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.

NOTE: Use software like Adobe Spark, SWAY. Etc to create your project.

## INFORMATICS PRACTICES ASSIGNMENT

### PRACTICAL FILE WORK

Write the following programs on Python Editor, and place the printouts of the code and the output screen shots in a ring file

1. Write a python program to take the radius of the circle and print its area.
2. Write a PYTHON program that inputs a student's marks in three subject and prints the total and percentage marks.
3. Write a PYTHON program to find the square of entered number.
4. Write a python program to take the length and breadth of rectangle from the user and print the area of a rectangle.
5. Write a python program to obtain principal amount, rate of interest and time from the user and computer Simple Interest and Compound Interest.
6. Write a program to obtain temperatures of 7 days (Monday, Tuesday...Sunday) and then display average temperature of the week.
7. Write a program to print Hello ten times.
8. Write a Python code to convert the temperature in Celsius to Fahrenheit.
9. Calculate the personal loan EMI as per the given formula:  
$$E = PR(1+R)^n / ((1+R)^n - 1)$$

E= EMI  
P=Principal amount  
R=Rate of interest  
n=Tenure of loan in months

Calculate EMI for the amount 20000 at 10% per annum for a period of 2 years.

10. Write a python code to calculate GST

GST ( Goods and Services Tax ) which is included in netprice of product.

For calculatingt GST %:

- first need to calculate GST Amount by subtract original cost from Netprice
- and then apply GST % formula =  $(\text{GST\_Amount} * 100) / \text{original\_cost}$

**SCHEDULE FOR SUBMISSION OF ASSIGNMENT SHEETS**  
**CLASS – XI(2020-21)**

<b>DATES</b>	<b>HUMANITIES</b>
<b>6.6.20</b>	<b>PSYCHOLOGY</b>
<b>13.6.20</b>	<b>POL SC. / IP</b>
<b>20.6.20</b>	<b>ECONOMICS/PHYSICAL EDUCATION</b>
<b>27.6.20</b>	<b>MATHS/ENGLISH</b>

**\*SUBJECTWISE PRACTICE WORKSHEET WILL BE UPLOADED ON MICROSOFT TEAMS AND E- CONNECT APP.**

