Scholars Global School

HOLIDAYS' HOMEWORK -SUMMER VACATION

-24)

SUBJECT - ENGLISH (XII)

1.**Design handmade colorful comic strips exhibiting the summary of following fictions (Do any two):-**

a. Lost Spring b. The Last Lesson c. The Tiger King d. Deep Water

Ruberics For Assessment: Originality, Creativity and Presentation.

2. **Make a creative power point presentation on Fiction/ Poetry assigned by teacher in class. It should include 10 to 12 slides. Also add following things.....**

a. Author's/Poet's Introduction and achievements

b. Theme, Central Idea, Message

c. Brief summary of the poem/fiction.

d. Poetic/literary Devices Used

Ruberics for Assessment: Creativity/Originality , Content and Presentation.

3. Complete the assignment provided along with the Holidays' Homework and paste in your English Notebook . Revise the entire topics of English syllabus covered till date.

4. **Read about writers/poets (Covered Till Date) and prepare a table calendar/Portfolio, which would include:**

*Coloured picture *Genre and era they belonged to

*Personal life *education *Literary works *Achievements

*Synopsis Of Fiction/Poet prescribed in Syllabus

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HOLIDAY HOME WORK CLASS :XI SUB:PHYSICS (042)

WORKSHEET

1.Show that expression $v=v_0+at$ is dimensionally correct, where v and v_0 represent velocities and a is acceleration and t represents time.

2.A dimensionally correct formula is not necessarily perfectly correct.Justify this giving an example.

3. Suppose that the displacement of an object is related to time according to the expression $x=Bt^2$. What are the dimensions of B?

4. (a) Is it possible for two quantities to have the same dimensions but different units.(b) Is it possible for two quantities to have same units but different dimensions?

5. The period *'T'* of a simple pendulum is measured in time units and is described by $T=2\pi\sqrt{l/g}$ Where *l* is the length of the pendulum and 'g' is the free fall acceleration in units of length divided by square of time. Show that this equation is dimensionally correct.

6. The air bubble formed by explosion inside water perform oscillations with time period T which depends on pressure (*p*), density (*ρ*) and on energy due to explosion (*E*). Establish relation between T, *p, E* and *ρ.*

7. The velocity v of a particle depends upon the time 't' according to the equation.

$$v = \sqrt{ab} + bt + \frac{c}{d+t}$$

Determine the units of a, b, c and d. What physical quantities they represent. All have SI units

8. Each of the following equations was given by a student during an examination.

$$\frac{1}{2}mv^2 = \frac{1}{2}mv_0^2 + \sqrt{mgh}$$

$$v = v_0 + at^2$$

$$ma = v^2$$

Do the dimensional analysis of each equation and explain why the equations cannot be correct.

9. Suppose we are told that the acceleration 'a' of a particle moving with uniform speed 'v' in a circle of radius 'r' is proportional to some power of r, say r^n, and some power of v^m. How can we determine the value of n and m.

10. CASE STUDY BASED

The nature of a physical quantity is described by its dimensions. All the physical quantities represented by derived units can be expressed in terms of some combination of seven fundamental or base quantities. We shall call these base quantities as the seven dimensions of the physical world, which are denoted with square brackets [ ]. Thus, length has the dimension [L], mass [M], time [T], electric current [A], thermodynamic temperature [K], luminous intensity [cd], and amount of substance [mol]. The dimensions of a physical quantity are the powers (or exponents) to which the base quantities are raised to represent that quantity. Note that using the square brackets [ ] round a quantity means that we are dealing with 'the dimensions of' the quantity. In mechanics, all the physical quantities can be written in terms of the dimensions [L], [M] and [T]. For example, the volume occupied by an object is expressed as the product of length, breadth and height, or three lengths. Hence the dimensions of volume are $[L] \times [L] \times [L] = [L^3]$.

(a)Name any three dimensionless quantities.

(b)Name any two dimensional constants.

(c)State the principal of homogeneity.

(d)Can two dimensionally different quantities be multiplied or divided?Explain your answer giving examples.

 # Read the taught chapters from the NCERT book and underline the sentences you are not able to understand.

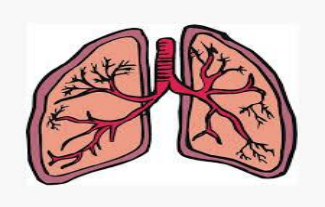
#Visit any Science museum and make a detailed account of a project that fascinated you the most in a separate small sized note book.

#Make a working model based on any topics of your entire Physics syllabus.

CLASS XI SUBJECT: BIOLOGY BREATHING & EXCHANGE OF GASES

Q1. Explain two phases of aerobic respiration?

Q2. How does exchange of gases takes place in the following organisms:- (a) Poriferans, coelenterates & flatworms. (b) Earthworms. (c) Arthropods (d) Fishes, Tadpoles of frog (e) Reptiles, birds & mammals



Q3. Describe with help of labeled diagram human respiratory system.

Q4. List the steps involved in pulmonary respiration.

Q5. How is inspiration & expiration accomplished in human beings?

Q6. Define the following terms:- (i) Tidal volume (ii) IRV (iii) ERV (iv) Residual volume

Q7. Name the apparatus by which volume of air involved in breathing can be measured.

Q8. Explain the pulmonary capacities:- IC, FRC, EC, VC & Total lung capacity.

Q9 (a) Name the factors that affect the rate of diffusion of gases in the lungs. (b) Mention the components of the diffusion membrane of human respiratory system.

Q10(a) What percentage of O_2 is transported by RBC's in the blood? What happens to the remaining?

(b) In what form in O_2 carried in the blood? What happens to this, form when blood reaches the tissues?

(c) Name the factors that affect the binding of O_2 to haemoglobin to form oxyhaemoglobin in the tissue.

Q11(a) What are three forms in which CO_2 is transported in blood? Explain.

(b) How does CO_2 gets released into the alveoli.

Q12(a) Where is respiratory rhythm centre located?

(b) How does pneumotoxic centre alter the respiratory rate? Where is it located in human?

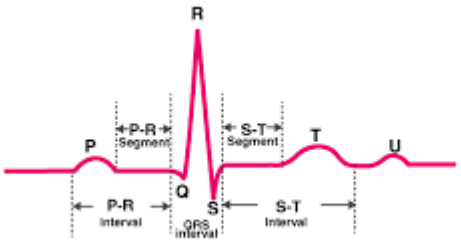
Q13(a) What is asthma? Explain.

(b) What is emphysema? What are its major causes?

(c) What are occupational disorders? Give two examples of such disorders.

Ch 15. Body Fluids and circulation

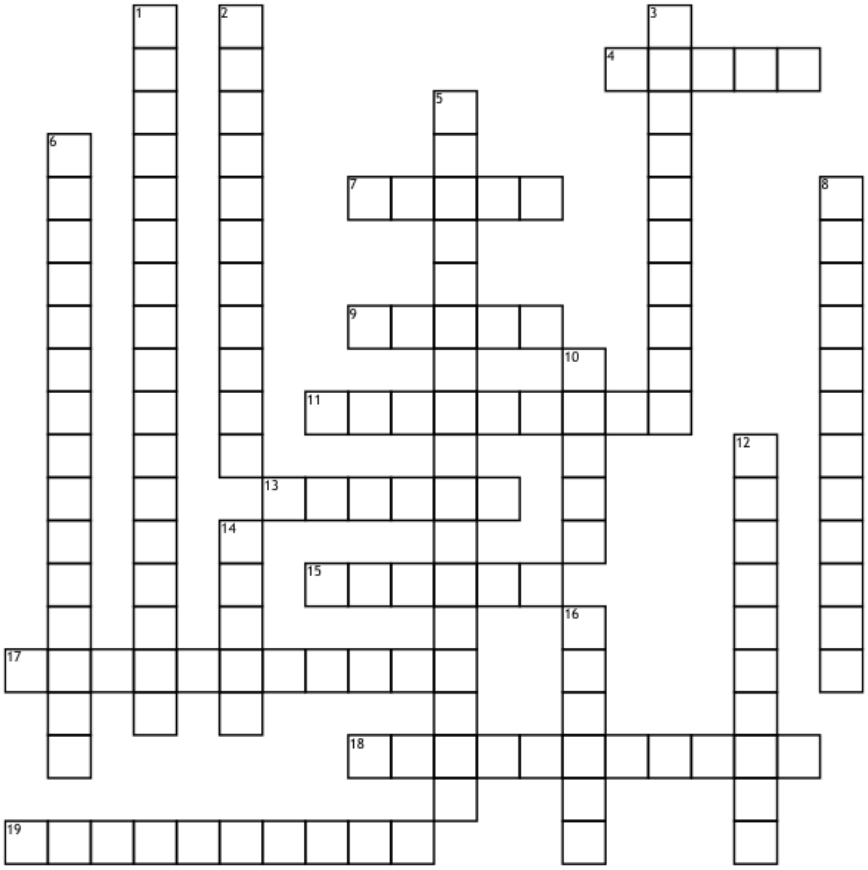
Q14. Explain the following graph:



Q15. Solve the crossword puzzle:

Name: _____

The Transport System



Across

4. Carry blood towards heart at low pressure
7. Largest artery in the body
9. Prevents blood from flowing backward
11. Helps blood to clot
13. Carries blood away from heart
15. The liquid part of the blood
17. A, B, AB and O are
18. Red blood contains these which carry oxygen
19. Lower chambers of the heart

Down

1. The Circulatory System is referred to as a _____ _____
2. Connects arteries and veins
3. These return deoxygenated blood to heart in right atrium
5. Consists of the heart, blood vessels and blood
6. The body's disease fighters
8. Word to describe carbon-dioxide rich blood
10. Hollow, muscular organ that pumps blood throughout the body
12. The oxygenated blood returns to the _____ _____ in the pulmonary vein
14. These receive deoxygenated blood from heart
16. In the lungs, blood loses carbon dioxide and picks up _____

Computer Science

Class XI Holiday Homework

Topic: Python Programming

1.”Python is an interpreted high level language‟. What does it mean to you?

2. What is the difference between interactive mode and script mode in Python?

3. What does a cross platform language mean?

4. What is the difference between a keyword and an identifier?

5. How many types of strings are supported in Python?

6. What factors guide the choice of identifiers in program?

7. What are tokens in Python? How many types of tokens are allowed in Python?

8. What do you mean by data types? How are they important?

9. What do you mean by immutable and mutable data types in python?

10.Write a program to obtain temperature in Celsius and convert it into Fahrenheit using formula F = C x 9 / 5 + 32.

11.What will be the output of the following code?

```
x, y = 2, 6
x, y = y, x + 2
print(x,y)
```

12.Predict the output :

```
F = 2
S = 3
T = F * S
print(F,S,T)
F = F + S + T
T = S * F
print(F,S,T)
```

13.Find the output/Error of the given code:

```
Name = “Komal”
Age = 18
print (“Your name & age are”, Name + Age)
```

14.Write a program that asks for your height in centimeters and then convert your height

to feet and inches.

15.Write a program to enter marks of a five subject of the student and then calculate %age of the student. Generate report card and give grade on the basis of below mentioned table.

Marks >90 80-90 60-80 50-60 40-50 <40

Grade A B C D E F

16.What are data types? What are Python„s built in core data types?

17.Write a program to read today‟s date from user(only dd part). Then display how many days are left.

18.What is Dynamic Typing feature of python?

19.Write a program that reads a number of seconds and print it in form of minutes and seconds.

20.Write a program to take year as input and check if it is leap year or not.

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Class XI
Physical Education
Holiday Homework

1. Try to find the Sanskrit meaning of poses, asanas, kriyas or pranayama they perform and covert them to your official language to understand how the names have been arrived.
   (You can use the A4 size coloures paper, may use coloured pens / sketch pens

Project work:

2. Make a study of other international symbols. Make a collage of these symbols on a poster. How powerful are these symbols on conveying their message? Do you think the Olympic rings convey the message of Olympism?
3. Classify the names as type of nouns (eg. Parvatasana- Mountain Object; Ushtrasana –Camel : animal)
4. Labeled diagram of field and equipment of any game IOA recognized sport/Game of your choice

CLASS XI
PSYCHOLOGY
HOLIDAYS HOMEWORK

Q1. You have read about different kind of professionals involved with the subject **(Clinical**, **Counselling, Organisational, School).**Find out and interview any one person associated with this field. Ask him/her questions such as—

- Which Institution is he associated with?
- What kind of education is required for the job?
- Which college would be best to study that particular course?
- What is the scope of getting a job after the course?
- What is he required to do in his job?
- What motivated him to take up that job?
- Is he/she involved in some Social /Community service also besides earning money?

Q2. 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.).

Q3. **PROJECT WORK**

The students are required to undertake one compulsory project during this academic year as per CBSE guidelines. The project would involve the use of different methods of enquiry and related skills.

Students can take up any of the topics mentioned below:

1. Stigma around mental Health.
2. Stress during the times of Corona and its management.
3. Impact of Bullying on the mental Health of victim.
4. Exploring Gender roles: Understanding among Individuals
5. Understanding Learning Disabilities.

General instructions to be followed:

1. The students should work individually.
2. proper file to be submitted by all the students.
3. Questionnaire method is compulsory to use.
4. Both Open ended and close ended questions to be included.
5. Questionnaire should consist of Minimum 15 questions.
6. Transcripts of the Interview, if taken (face to face or telephonic) are Compulsory.
7. Sample for data collection: Minimum 8 Individuals.
8. Gender Ratio to be strictly maintained.

The format of the project is as follows:

Page 1: Psychology Practical File (with School Name, Full name, class and section and roll no.)

Page 2: Title of the Topic chosen

Page 3: Acknowledgment

Page 4: Index

CHAPTER 1

- Introduction

1. Steps in conducting scientific research
2. Introduction to the chosen topic and
3. Related sub topics
4. Recent research in the concerned area

CHAPTER 2

- Methodology

1. Sample: Description of the sample and Preliminaries.
2. Tools Used:

2.1 Introduction to Interview, advantages and disadvantages of interview method.

2.2. Introduction to questionnaire, advantages and disadvantages of Questionnaire method.

CHAPTER 3

- Results and data Analysis (using Graphical methods)

CHAPTER 4

- Discussion and conclusion.