

**THE DOON VALLEY PUBLIC SCHOOL, DEOBAND**  
**HOLIDAY HOMEWORK (2017-18)**  
**Class- XI (Science)**

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**Hindi**

1. भारत की महान् व गौरवशाली महिलाओं के योगदान से सम्बन्धित कोलाज तैयार कीजिए।
2. अभिव्यक्ति एवं माध्यम विषय से सम्बन्धित प्रश्नों की पी0पी0टी0 तैयार कीजिए।
3. महादेवी वर्मा की हिन्दी साहित्य को देन विषय पर पी0पी0टी0 तैयार करें।

**English**

1. Choose two articles from News – paper paste those in your note - book and do note- making with abbreviations
2. Make two posters on current topic on A4 size sheets.
3. Paste two attractive posters taking from any magazine, in your note-book.
4. Choose five classified advertisement and five display advertisement and paste them in your note-book
5. Read the complete novel.
6. Watch the movies “Titanic” & “The Canterville Ghost”.

**Maths**

Sets :- 40 questions

Trigonometry 60 questions

Questions should be from R.D Sharma book.

**Physics**

1. If  $x = at + bt^2$  where  $x$  is in meters and  $t$  is in seconds. What are the units of  $a$  and  $b$ ?
2. Fill ups.  
(i)  $3.0\text{m/s}^2 = \text{----- km/hr}^2$   
(ii)  $6.67 \times 10^{-11} \text{ N-m}^2/\text{kg}^2 = \text{----- g}^{-1} \text{ cm}^3 \text{ s}^{-2}$
3. Write S.I unit of luminous intensity and temperature?
4. Calculate the time taken by the light to pass through a nucleus of diameter  $1.56 \times 10^{-16} \text{ m}$ . (speed of light is  $3 \times 10^8 \text{ m/s}$ )
5. If force (F) acceleration (A) and time (T) are taken as fundamental units, then find the dimension of energy.
6. Two resistances  $R_1 = (100 \pm 3.0) \Omega$  and  $R_2 = (200 \pm 4.0) \Omega$  are connected in series. Then what is the equivalent resistance?
7. If velocity, time and force were chosen the basic quantities, find the dimensions of mass?
8. Young's modulus of steel is  $19 \times 10^{10} \text{ N/m}^2$ . Express it in dynes/cm<sup>2</sup>. Here dynes are the C.G.S unit of force.
9. The velocity  $u$  of water waves may depend on their wavelength  $\lambda$  density of water  $\rho$  and the acceleration due to gravity  $g$ . Find relation between these quantities by the method of dimension?
10. The force acting on an object of mass  $m$  traveling at velocity  $u$  in a circle of radius  $r$  is giving by  $F = (mv^2/r)$ , the measurements recorded as  $m = 3.5\text{kg} \pm 0.1\text{kg}$ ,  $v = (20.0 \pm 1.0) \text{ m/s}$ ,  
 $r = (12.5 \pm 0.5) \text{ m}$

Find the maximum possible; (1) fractional error (2) % error in the measurement of force.

11. Write the dimensional formula of-  
Force constant, Angular momentum, Latent heat, Electric permittivity, Refractive index.
12. Name some physical quantities that have same dimension.
13. **SONAR (Sound Navigation and Ranging)** uses ultrasonic waves to detect and locate objects under water. In a submarine equipped with SONAR the time delay between generation of a probe wave and reception of its echo after reflection from an enemy submarine is found to be 55.0 sec. What is the distance of the enemy submarine? (Speed of sound=1450 m/s).
14. Acceleration is called as rate of change of velocity. Suppose we call rate of change of acceleration SLAP, what is the unit of SLAP?
15. An artificial satellite of mass  $m$  is revolving in a circular orbit around a planet of mass  $M$  and radius  $R$ . if the radius of the orbit of satellite be  $r$ , then calculate the time period of satellite by using dimensional analysis.
16. The measured value of length, breadth and height of a block of wood along with maximum permissible errors are expressed as follows:  $L=12.08\pm0.01\text{cm}$ ,  $B=10.12\pm0.01\text{cm}$ ,  $H=5.62\pm0.01\text{cm}$ . Calculate the percentage error in the volume of the block.
17. Revise all three lessons completed and make proper notes.
18. Make notes of 3<sup>rd</sup> chapter "**Motion in a straight line**".

### Chemistry

Unit 18 :- Some Basic concepts of chemistry – NCERT Exercise

Unit 2<sup>nd</sup> :- Structure of Atom – Related NCERT Exercise questions

### BIOLOGY

1-Prepare a herbarium file by collecting wild plants commonly found in your area.

2-Make a hand written project report in the correct format, with the necessary pictures, diagrams, etc.,

The project can be a stationary model, a working model, a collage or an investigatory project (hand written).

### Computer

Practice programs done in class.

### Phy Edu

Unit complete the work in note book

Learn Notes of unite 1 & Unite 5



**\*Summer Vacations will start from May 27<sup>th</sup> , 2017 and school will reopen on 28<sup>th</sup> June , 2017 as usual. School timing 7:45 a.m. to 1:15 p.m.**