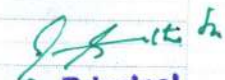



**BETHANY CONVENT SCHOOL, NAINI PRAYAGRAJ**  
**HOLIDAY HOMEWORK CLASS XII (MED/NM) 2024-2025**

SUBJECTS	
<b>ENGLISH</b>	<p>*English Project File*</p> <p>Watch /Read and prepare a file on any selected topic of your choice.</p> <ol style="list-style-type: none"> <li>1. Any documentary</li> <li>2. A biography of any inspiring or motivational figure</li> <li>3. Life of any Poet or Author or Any Real Life Hero</li> <li>4. Any Selected Novel recently read</li> <li>5. Any Advocative (For or Against) Movie (Avoid any religious or controversial movie)</li> </ol>
<b>PHYSICS</b>	<ol style="list-style-type: none"> <li>1. To study various factors on which the internal resistance/EMF of a cell depends. (Roll No. 1,9,17,25,33,41, 48)</li> <li>2. To study the variations in current flowing in a circuit containing an LDR because of a variation in (a) the power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the lamps at a fixed distance). (Roll No.2,10,18,26,34,42,49)</li> <li>3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equiconvex lens (made from a glass of known refractive index) and an adjustable object needle. (Roll No-3,11, 19,27,35,43,50)</li> <li>4. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer. (Roll No-4,12,20,28,36,44,51)</li> <li>5. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids. (Roll No. 5,13,21,29,37,52)</li> <li>6. To estimate the charge induced on each one of the two identical Styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law. (Roll No-6,14,22,30,38,45,53)</li> <li>7. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor / (bulb) in a circuit fed up by an AC source of adjustable frequency. (Roll No-7,15,23,31,39,46.)</li> </ol>
<b>CHEMISTRY</b>	<p><b>Prepare a scientific investigatory project involving laboratory testing and collecting information from research journals (which involves about 10 periods of work) on the topics assigned as per your Roll No.</b></p> <ol style="list-style-type: none"> <li>1. Study of the presence of oxalate ions in guava fruit at different stages of ripening.(Roll No. 1,9,17,25,33,41, 48)</li> <li>2. Study of quantity of casein present in different samples of milk.(Roll No.2,10,18,26,34,42,49)</li> <li>3. Preparation of soybean milk and its comparison with the natural milk with respect to curd formation, effect of temperature etc.(Roll No-3,11, 19,27,35,43,50)</li> <li>4. Study of the effect of Potassium Bisulphate as food preservative under various conditions (temperature, concentration, time, etc.)(Roll No-4,12,20,28,36,44,51)</li> <li>5. Study of digestion of starch, pili, mileage, and effect of pH and temperature on it(5,13,21,29,37,52)</li> <li>6. Comparative study of the rate of fermentation of following materials, wheat, flour, gram flour, potato juice, carrot juice, etc (Roll No-6,14,22,30,38,45,53)</li> <li>7. Extraction of essential oils present in Saurf(Aniseed),Ajwain (carum), Elaichi(cardamom),(Roll No-7,15,23,31,39,46.)</li> <li>8. Study of common food, adulterants in fat, oil, butter, sugar, turmeric powder, chilli powder, and pepper(Roll No-8,16,32,40,47.)</li> </ol>
<b>MATHEMATICS</b>	<p><b>Complete following activities in maths lab manual.</b></p> <ol style="list-style-type: none"> <li>1. To locate the points to given coordinates in space, measure the distance between two points in space and then to verify the distance using distance formula.</li> <li>2. To measure the shortest distance between two skew lines and verify it analytically.</li> <li>3. To explain the computation of conditional probabilities of a given event A when event B has already occurred through an example of throwing a pair of dice.</li> </ol> <p><b>Projects:(make a handwritten file in A4 size sheets with minimum 10 pages and proper index, proper personal details, attach pages in punching file only)</b></p> <ol style="list-style-type: none"> <li>1. Roll No. 1 to 9: History of Indian mathematics and ancient Indian mathematicians, their contributions in different fields of maths.</li> <li>2. Roll No. 10 to 18: Detailed history of "PI" and its importance in mathematics, application in different fields of science.</li> <li>3. Roll No. 19 to 28: Detailed study of history of logarithm and "e" with its domain, range, graphs, application, importance etc.</li> <li>4. Roll No.29 to 37: Collect all the formulae, properties and theorems(proofs not required) related to differentiation, integration, trigonometry, matrices and determinants.</li> <li>5. Roll No. 38 to 46: Complete study of inverse trigonometric functions, graphs, domain, range, properties and its applications in various fields of maths and science.</li> <li>6. Roll No. 47 to 53: Complete analysis of use of mathematics in physics, chemistry, computer, engineering and daily life.</li> </ol>
<b>BIOLOGY</b>	<p><b>Prepare the investigatory project on the given topics assigned as per your Roll No.</b></p> <p>Roll No. 1 and 2 - Cancer</p> <p>Roll No. 3 and 4 - HIV/AIDS</p> <p>Roll No. 5 and 6 - To study the process of Infertility and its Causes.</p> <p>Roll No. 7 and 8 - Drug Addiction</p> <p>Roll No. 9 and 10 - Microbes in Human Welfare</p> <p>Roll no. 11 and 12 - To study the Population growth and its Interaction.</p> <p>Roll No. 13 and 14 - Study of Transgenic Animal:Production and application.</p> <p>Roll No. 15 and 16 - Study of the mysterious molecule : DNA.</p> <p>Roll No. 17 and 18 - Study of Chromosomes and DNA packaging.</p> <p>Roll no. 19 and 20 - Study of drugs resistance Bacteria using Antibiotics.</p>

  
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	Roll No. 21 and 22 - Effect of rDNA Technology in today medicines
	Roll No. 23 and 24 - Study of Human Genome Project.
	Roll No. 25 and 26 - To study the effect of light on plants growth.
	Roll No. 27 and 28 - Study the Classification and History of Drugs.
	Roll No. 29 and 30 - Study of Human Reproductive Cloning and Biotechnology.
	Roll No. 31 and 32 - DNA Fingerprinting.
	Roll no. 33 and 34 - To study the Structure of RNA and its Functions.
	Roll No. 35, 36 and 37 - Effect and Causes of Pollution on Human Health.
I.P	I.P projects list
	Prepare a synopsis report on A4 papers in a transparent file for the selected project. The project should be having the GUI interface with PYTHON Programming language and MYSQL database.
	<b>Block Puzzle</b>
	(XII-Med)-Roll No 12101, 12112, 12114
	<b>Library Management System</b>
	(XII-Med)-Roll No 12115, 12122
	<b>KBC</b>
	(XII-NM)-Roll No 12214
	<b>Tourism Management System</b>
	(XII-NM)-Roll No 12208, 12212 (XII M)- 12103
	<b>Tetris</b>
	(XII-N.M)-Roll No 12245, 12239, 12240
	(XII-Med)-Roll No 12130
	<b>Password Manager with advanced login system</b>
	(XII-NM)-Roll No 12248
	(XII-Med)-Roll No 12135
	<b>Stock Marketing Predictor</b>
	(XII-NM)-Roll No 12229, 12228
	<b>IPL Data Analysis</b>
	(XII-Med)-Roll No 12133
	(XII-NM)-Roll No 12236
	<b>Anime analysis</b>
	(XII-NM)-Roll No 12222, 12246
	<b>All Number System Conversion</b>
	(XII-NM)-Roll No 12226, 12231

<b>HINDI</b>	<p>वैकल्पिक हिन्दी लेखन -कौशल से संबंधित परियोजना कार्य:-</p> <ol style="list-style-type: none"> <li>1. "कलाओं का जीवन में महत्व" विषय पर रचनात्मक लेखन करते हुए किन्हीं चार लोक कलाओं का सवित्र वर्णन करें। (For Medical students)</li> <li>2. लेखक डॉ. भीमराव अंबेडकर एवं उनकी प्रमुख रचनाओं का सवित्र जीवन परिचय लिखिए। (For non -medical students)</li> <li>3. जनसंचार माध्यमों का विकास और समाज पर उसका प्रभाव विषय विशेष पर सवित्र वर्णन कीजिए। (For commerce students)</li> </ol> <p>हिन्दी पठन -पाठन कौशल से संबंधित परियोजना कार्य:-</p> <ol style="list-style-type: none"> <li>1. स्वचयनित समकालीन कवियों के भक्ति पद मौखिक गेयात्मक शैली में रिकॉर्डिंग कर एक सी.डी तैयार करें। (For medical students)</li> <li>2. समाचार खबरों से संबंधित किसी क्षेत्र विशेष पर एक संवाददाता के रूप में अपनी मौखिक रिपोर्ट रिकॉर्ड कर सी.डी तैयार करें। (For non medical students)</li> <li>3. अपने किसी एक पसंदीदा कवि/ कवयित्री /लेखक/ और लेखिका से संबंधित किसी एक प्रसिद्ध रचनाओं गहनता पूर्वक पठन-पाठन करें। (For commerce students)</li> </ol>
<b>Physical education</b>	<p>Explain the given below topics in brief in your practical file</p> <ol style="list-style-type: none"> <li>1. History of game</li> <li>2. Diagram of court or ground</li> <li>3. Correct measurement</li> <li>4. Rules of games</li> <li>5. Fundamental skills of game</li> <li>6. Terminology of game</li> <li>7 Important tournament</li> <li>8. Venues</li> <li>9. Personalities</li> </ol> <p>Make notes of unit 5-Sports and Nutrition and cover the following topics</p> <ol style="list-style-type: none"> <li>1. Concept of balance diet and nutrition.</li> <li>2. Macro and micro nutrients</li> <li>3. Nutritive and non-nutritive component of diet.</li> <li>4. Functions of balanced diet.</li> <li>5. Factors affecting macro and micro diet.</li> <li>6. Factors affecting non-nutritive food.</li> </ol>

  
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