SAVITRI DEVI DAV PUBLIC SCHOOL, JAMTARA

DEEPAWALI & CHHAT PUJA HOME-WORK & PROJECT WORK-(2024-25)

CLASS-XI

(ENGLISH)

MAKE A PORTFOLIO IN THE CHANNEL FILE/ANY FILE ON THE TOPIC **"VOICE OF THE RAIN"** COVERING THE STEPS GIVEN BELOW:

- **ACKNOWLEDMENT**
- **CERTIFICATE**
- **INTRODUCTION OF THE POET**
- **POEM**
- **SUMMARY OF THE POEM**
- **THEME OF THE POEM**
- **MESSAGE OF THE POEM**
- **LITERARY TERMS USED IN THE POEM**
- **FEATURES OF THE RAIN**

USE COLOR, SKETCH AND DRAWINGS & PICTURES TO BEAUTIFY THE PORTFOLIO.

READING PASSAGE

Read the passage given below:

BALANCING THE SCALES

Artificial intelligence (AI) is making a difference to how legal work is done, but it isn't the threat it is made out to be. AI is making impressive progress and shaking up things all over the world today. The assumption that advancements in technology and artificial intelligence will render any profession defunct is just that, an assumption and a false one. The only purpose this assumption serves is creating mass panic and hostility towards embracing technology that is meant to make our lives easier.

Let us understand what this means explicitly for the legal world. The ambit of AI includes recognizing human speech and objects, making decisions based on data, and translating languages. Tasks that can be defined as 'search-and-find' type can be performed by AI.

Introducing AI to this profession will primarily be for the purpose of automating mundane, tedious tasks that require negligible human intelligence. The kind of artificial intelligence that is employed by industries in the current scene, when extended to the law will enable quicker services at a lower price. AI is meant to automate a number of tasks that take up precious working hours lawyers could be devoted to tasks that require discerning, empathy, and trust-qualities that cannot be replicated by even the most sophisticated form of AI. The legal profession is one of the oldest professions in the world. Thriving over 1000 years; trust, judgement, and diligence are the pillars of this profession. The

most important pillar is the relationship of trust between a lawyer and clients, which can only be achieved through human connection and interaction.
While artificial intelligence can be useful in scanning and organizing documents pertaining to a case, it cannot perform higher-level tasks such as sharp decision making, relationship-building with valuable clients and writing legal briefs, advising clients, and appearing in court. These are over and above the realm of computerization.
The smooth proceeding of a case is not possible without sound legal research. While presenting cases lawyers need to assimilate information in the form of legal research by referring to a number of relevant cases to find those that will favour their client's motion. Lawyers are even required to thoroughly know the opposing stand and supporting legal arguments they can expect to prepare a watertight defence strategy. AI, software that operates on natural language enables electronic discovery of information relevant to a case, contract reviews, and automation generation of legal documents.
AI utilizes big-data analytics which enables visualization of case data. It also allows for creation of a map of the cases which were cited in previous cases and their resulting verdicts, as per the website Towards Data Science. The probability of a positive outcome of a case can be predicted by leveraging predictive analytics with machine learning. This is advantageous to firms as they can determine the return on investment in litigation and whether an agreement or arbitration should be considered.

(a) On the basis of your understanding of the above passage, make notes on it using headings and subheadings. Use recognizable abbreviations (wherever necessary- minimum four) and a format you consider suitable. Also supply an appropriate title to it. (5)

(b) Write a summary of the passage in about 80 words. (3)

PHYSICS

➢ Write the answers of the following questions.

1. An object of mass *m* is raised from the surface of the earth to aheight equal to the radius of the earth, that is, taken from a distance*R* to 2*R* from the centre of the earth. What is the gain in its potentialenergy?
2. Discuss the variation of acceleration due to gravity with altitude. Hence find the expression of acceleration due to gravity at a height h from the earth's surface.
3. Explain how is the acceleration due to gravity affected at a latitude due to the rotational motion of the earth. Hence find the expression of acceleration due to gravity at a latitude θ. Given that radius of the earth is R and angular velocity of earth is ω.
4. At a point above the surface of the earth, thegravitational potential is -5.12 x 10^7 J/Kg and theacceleration due to gravity is 6.4 m/s^2. Assuming the

meanradius of the earth to be 6400 km, calculate the height of thispoint above the earth's surface.

5. An artificial satellite is going round theearth, close to its surface. What is the time taken by it tocomplete one round? Given radius of the earth is 6400 km.
6. Define the following terms and write its SI unit and dimension.
   a) Young's modulus
   b) Bulk Modulus
   c) Shear Modulus
   d) Poisson's Ratio
7. What is meant by elastic potential energy? Derivean expression for the elastic potential energy ofstretched wire. Prove that its elastic energy density isequal to $\frac{1}{2}\times$stress x strain.
8. Calculate the increase in energy of a brass barof length 0.2 m and cross-sectional area 1cm^2 whencompressed with a load of 5 kg weight along its length.Young's modulus of brass = 1.0x 10^{11} N/m^2 and g=9.8 m/s^2
9. Determine the Poisson's ratio of the materialof a wire whose volume remains constant under an externalnormal stress.
10. Explain what happens when the load on a metalwire suspended from a rigid support is gradually increased.Illustrate your answer with a suitable stress-strain graph.

CHEMISTRY

1. Define with example-
a) Exothermic and endothermic reaction.
b) Degree of dissociation and dissociation constant of weak acid.
c) Strong and weak electrolyte.
d) pH and pOH.
e) Buffer action and buffer solution.
2. Why is chemical equilibrium called dynamic equilibrium.
3. What are the characteristics of chemical equilibrium.
4. State and explain law of mass action.
5. Derive the relationship between Kc and Kp for reaction $aA_{(g)} + bB_{(g)} \Leftrightarrow cC_{(g)} + dD_{(g)}$
6. State Le-chatelier's principle.
7. Derive Ostwald's dilution law for weak acid CH3COOH.

Project work (prepare in Channel file)

Topic:-- Atomic Orbitals and Nodes

BIOLOGY

1.The genome content of the nucleus is constant for the given species where an extra chromosomal DNA is found to be variable among the members of a population .Explain

2.(a)What is the difference between gram-positive and gram-negative bacterial cell walls?

(b) Why does gram-negative bacteria doesn't retain gram stain?

3.Comment on the cartwheel structure of centriole.

4.What is G0(quiescent phase) of cell cycle?

5.Find examples where the four daughter cells from meiosis are equal in size and where they are found unequal in size.

6.Why is mitosis called equational division?

7.Draw the structure of the amino acid, alanine.

8. How does temperature and pH affect the activity of enzyme?

9. Explain different class of enzymes explain any two with the type of reaction they catalyse.

10. Which cell organelles are enclosed by

(i)a single unit membrane (ii)double unit membrane.

Project- To study the effect of pH on seed germination.

MATHEMATICS

1) Find the radian measures corresponding to the following degree measures:

(i) 25° (ii) – 47° 30′ (iii) 240° (iv) 520°

2) . Find the degree measures corresponding to the following radian measures (Use $\pi = 22/7$)

(i) 11/16

ii) -4

(iii) $5\pi/3$

(iv) $7\pi/6$

3) A wheel makes 360 revolutions in one minute. Through how many radians does it turn in one second?

4) Prove that $\sin (n + 1)x \sin (n + 2)x + \cos (n + 1)x \cos (n + 2)x = \cos x$

5) $\cos^2 2x - \cos^2 6x = \sin 4x \sin 8x$

6) Prove that $\cot x \cot 2x - \cot 2x \cot 3x - \cot 3x \cot x = 1$

7) Evaluate the given limit: $\lim_{x \to 0} \frac{\cos 2x - 1}{\cos x - 1}$

8) Find $\lim_{x \to 0} f(x)$ and $\lim_{x \to 1} f(x)$, where $f(x) = \begin{cases} 2x+3 & x \leq 0 \\ 3(x+1) & x > 0 \end{cases}$

9) . Find the derivative of cos x from the first principle.

10) Differentiate √sinx³ with respect to x

11) Differentiate √tan(secx) with respect to x.

12) How many 3-digit numbers can be formed from the digits 1, 2, 3, 4 and 5, assuming that

(i) Repetition of the digits is allowed?

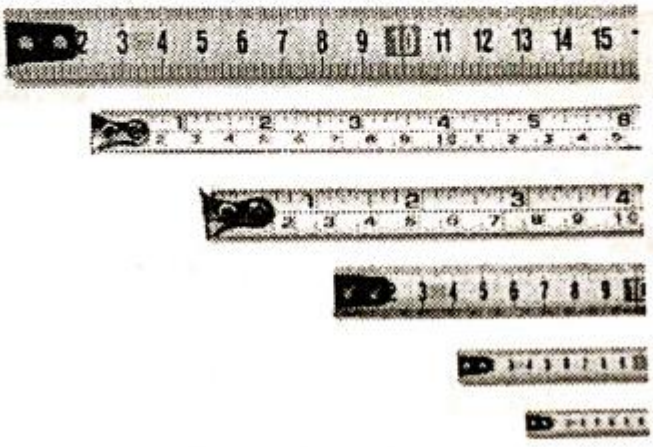
(ii) Repetition of the digits is not allowed?

I.P

HOLIDAY HW : WRITE 3 PROGRAMS EACH WITH OUTPUT IN PRACTICAL COPY ON LOOP, IF ELSE, LIST

P.HE

Q. 1. Rise and Shine Public School takes part in a football tournament, the coach of football wants to measure the performance of students, so he measures the performance by using a ratio scale.



Look at the picture carefully and identify the scale and answer the questions:

(a) _____scale is shown in the above picture.

(b) It is the most _____, the most sophisticated, and the most ____measurement scale.

(c) This scale is different from the_____ scale.

(d) This scale has an _____, a true zero that has meaning.

Q. 2. Rahil has an athletic, strong, and solid body. His coach explains about his body type and advise him to stat his career as an athlete.

Identify the body type and answer the given questions:

(a) _____ body type Rahil has.

(b) People of this body type are not _____ and not underweight.

(c) They have _____bone structure with shoulders wider than the hips.

(d) They have _____metabolism.