

ST. MICHAEL'S SR. SEC. SCHOOL
3,PUSA ROAD NEW DELHI
CLASS X ASSIGNMENT MIDTERM 2026-27

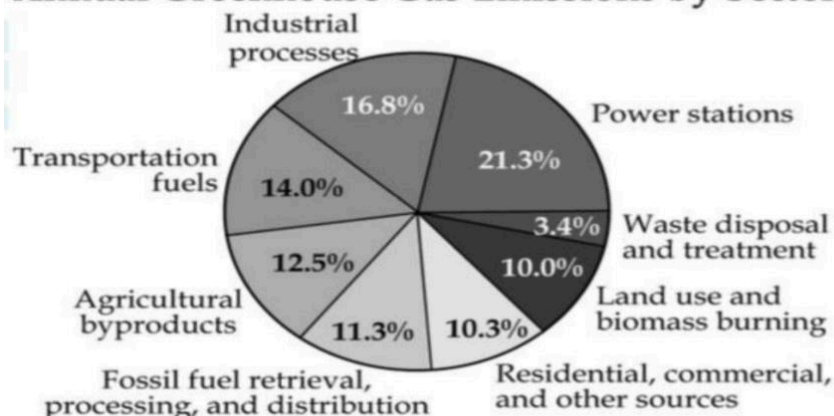
ENGLISH ASSIGNMENT 2026-2027
CLASS - 10

READING (5 Marks)

A. Read the following passage carefully:

1. Global weather is warming leading to Arctic meltdown. This is primarily a result of the greenhouse effect caused by too much carbon dioxide in the atmosphere which acts as a blanket, trapping heat and warming the plant.
2. Burning of fossil fuels like coal, oil and natural gas for energy, cutting down and burning forests to create pastures and plantations leads to carbon accumulation. Refrigeration and air conditioning and certain agricultural practices also aggravate the problem by releasing additional potent global warming gases such as methane and nitrous oxide.
3. Over the last century, global average temperature has increased by more than 1° F. This global warming would also have the potential to change rainfall and snow patterns, increase droughts and severe storms, reduce lake ice cover, melt glaciers, increase sea levels and change plant and animal behaviour. The impact of global warming on our planet is extremely serious and if this problem is not talked on an urgent basis it will lead to melting of polar ice caps leading to an increase in sea level drowning coastlines and slowly submerging continents. Our generation needs to give a healing touch to the earth which we have ourselves made sick.

Annual Greenhouse Gas Emissions by Sector



Based on your understanding of the passage, answer the questions given below: (5)

- (i) What leads to greenhouse effect on our planet?
- (ii) What do you understand by the word 'accumulation' as used in para 2?
- (iii) How can global warming affect the climate?
- (iv) Which sector contributes maximum in Greenhouse Gas emissions?
- (v) Which word in para 3 means the same as 'serious or intense'?

GRAMMAR (5 Marks)

B. Do these grammar questions as directed. (5)

- (vi) Fill in the blank with the correct helping verb to complete the sentence.
A school of fish _____ spotted in the lake.
- (vii) Complete the sentence by filling the blank with the correct form of the verb.
I knew that Ramesh _____ (visit) Jaipur before, so I asked him to recommend a good hotel.
- (viii) Identify the error in the given sentence and supply the correction.
Discipline in life ensure peace and harmony which in turn, offers the impetus for nation's progress.

Use the given format for your answer.

Error	Correction

- (ix) Fill in the blank by using the correct form of the word in the bracket, for the concluding portion of a letter.
It is high time that the concerned authorities should wake up to this social problem and try to rein in the rising prices so that the middle class _____ (do) suffer.
- (x) Fill in the blank with the correct Modal Verb.
The company _____ sell these many products if they don't find the right marketing professionals quickly.

HINDI

प्रश्न 1) निर्देशानुसार 'पदबंध पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर दीजिए।

- (क) 'आज का दिन अनोखा और ऐतिहासिक था।' (पदबंध छाँटकर उसका भेद भी लिखिए।)
- (ख) 'जापान के लोग प्रकृति के साथ अद्भुत सामंजस्य बिठाते हैं।' (संज्ञा पदबंध छाँटकर लिखिए।)
- (ग) 'उनका स्वभाव बहुत गंभीर था।' प्रस्तुत वाक्य में कौन सा पदबंध है?
- (घ) 'वह तेज कदमों से चली गई और ठिठक गई।' (क्रिया पदबंध छाँटिए।)
- (ङ) 'बड़ी मुश्किल से भीड़ छटी।' रेखांकित शब्द में कौन-सा पदबंध है?

प्रश्न 2) निर्देशानुसार रचना के आधार पर वाक्य रूपांतरण पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर दीजिए -

- (क) 'उनकी बनाई फिल्म सच्चा कवि हृदय ही बना सकता था।' (मिश्रित वाक्य में रूपांतरित कीजिए।)
- (ख) 'बड़े भाई साहब की ही उम्र में मैंने पढ़ना शुरू किया था।' (मिश्रित वाक्य में रूपांतरित कीजिए।)
- (ग) हमेशा यही सवाल इसी ध्वनि में पूछा जाता था, जिसका जवाब मेरे पास केवल मौन था।' (सरल वाक्य में रूपांतरित कीजिए।)
- (घ) 'एकाएक एक ऊँची लहर उठी और उसे भिगो गई।' (सरल वाक्य में रूपांतरित कीजिए।)
- (ङ) 'मेरे जीवन में पहली बार ऐसा हुआ कि मैं इस तरह विचलित हुआ हूँ।' (रचना की दृष्टि से वाक्य भेद लिखिए।)

प्रश्न 3) निर्देशानुसार 'समास' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर दीजिए।

- (क) 'अकाल पीड़ित' शब्द का समास विग्रह और समास बताइए।

- (ख) 'कालीमिर्च' शब्द में कौन-सा समास है?
 (ग) 'प्रतिक्षण' पद में प्रयुक्त समास कौन-सा है?
 (घ) तत्पुरुष समास का उदाहरण लिखिए।
 (ङ) 'कुसुमायुध' शब्द का समास विग्रह और समास बताइए।

प्रश्न 4) निर्देशानुसार 'मुहावरे' पर आधारित प्रश्नों के उत्तर दीजिए।

- i) रिक्त स्थान की पूर्ति उचित मुहावरे द्वारा कीजिए। उनकी कला में इतनी ताकत थी कि वे अपनी धुन से _____ भी आग लगा देते थे।
- ii) नियम तोड़ने और वामीरो से प्रेम करने के कारण गाँव के मुखिया तताँरा को देखकर _____ हो गए।
- iii) 'ओखली में सिर देना' मुहावरा वाक्य में इस प्रकार प्रयोग करें कि अर्थ स्पष्ट हो जाए।
- iv) 'भाई साहब अकसर सूक्ति बाण छोड़ते थे।' इस वाक्य से मुहावरा छाँटकर उसका वाक्य में प्रयोग कीजिए।
- v) 'महात्मा गांधी को अंग्रेजों ने कई बार नजरबंद करके रखा।' दिए गए वाक्य में रेखांकित शब्द का क्या अर्थ है?

प्रश्न 5. निम्नलिखित प्रश्नों के उत्तर लगभग 25-30 शब्दों में दीजिए-

- (क) "द्रौपदी री लाज, आप बढ़ायो चीर।" प्रस्तुत पंक्तियों में मीरा श्रीकृष्ण से क्या प्रार्थना कर रही है?
 (घ) पर्वत प्रदेश में पावस' कविता के आधार पर 'सहस्र दृग-सुमन' का अर्थ बताइए।

प्रश्न 6. निम्नलिखित प्रश्नों के उत्तर लगभग 25-30 शब्दों में दीजिए-

- i) रूढ़ियों और परंपराओं का बंधन प्रेम की राह में बाधक नहीं बन सकता। तताँरा-वामीरो कथा के आधार पर स्पष्ट कीजिए।
- ii) वृजलाल गोयनका कौन थे? झंडा दिवस को सफल बनाने में उनकी भूमिका पर प्रकाश डालिए।
- iii) 'बड़े भाई साहब' कहानी के अनुसार जीवन की समझ कैसे आती है?

प्रश्न-7 पूरक पाठ्यपुस्तक 'संचयन' पर आधारित निम्नलिखित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 40-50 शब्दों में दीजिए-

- i) अनपढ़ होते हुए भी हरिहर काका दुनिया की बेहतर समझ रखते हैं? कहानी के आधार पर स्पष्ट कीजिए।
- ii) समाज में रिश्तों की क्या अहमियत है? इस विषय पर अपने विचार प्रकट कीजिए।

प्रश्न-8 निम्नलिखित में से एक विषय पर लगभग 100-120 शब्दों में अनुच्छेद लिखिए-

- i) भारतीय समाज में नारी की स्थिति
- ii) मेरी अविस्मरणीय यात्रा

प्रश्न -9 लाउडस्पीकरों का अनुचित प्रयोग रोकने के लिए पुलिस आयुक्त को एक पत्र लिखिए। (लगभग 100 शब्द)

अथवा

आपने नया कंप्यूटर खरीदा है, किंतु खरीदने के एक महीने बाद ही उसमें खराबी आ गई। आपकी शिकायत पर दुकानदार ने कोई ध्यान नहीं दिया। कंपनी के मुख्य मैनेजर को लगभग 100 शब्दों में एक पत्र लिखकर घटना की जानकारी देते हुए अनुरोध कीजिए कि वे आपके साथ न्याय करें।

प्रश्न-10 आपके मोहल्ले के पार्क में कई अनधिकृत खोमचे वालों ने डेरा जमा लिया है, उन्हें हटाने के लिए नगर निगम के अधिकारी को 80 शब्दों में एक ई-मेल लिखिए।

अथवा

“भाग्य नहीं कर्म फलते हैं कर्म ही पुरुषार्थ है।” इस विषय को आगे बढ़ाते हुए लगभग 100 शब्दों में लघुकथा लिखिए।

X Science

4. Assertion and Reason:

In the following questions (Q1 - Q14), the Assertion and Reason have been put forward. Read the statements carefully and choose the correct alternative from the following:

- (xi) Both the Assertion and the Reason are correct, and the Reason is the correct explanation of the Assertion.
- (xii) Both the Assertion and the Reason are correct, and the Reason is not the correct explanation of the Assertion.
- (xiii) Assertion is true but Reason is false.
- (xiv) Assertion is false but Reason is true.

1. Assertion (A): Zinc and lead displace copper from its compounds.
Reason (R): Zinc and lead are more reactive than copper.
2. Assertion (A): Generally, the colour of indicators changes in particular pH range.
Reason (R): Indicators are weak acids or weak bases and exhibit different colours in molecular form and ionic form.
3. Assertion (A): Xylem tissue moves water and minerals obtained from the soil by the roots.
Reason (R): Xylem tissue is found only in the roots of a plant.
4. Assertion (A): Auxin helps the cells of stem grow longer.
Reason (R): Auxin is a growth inhibitor.
5. Assertion (A): A convex mirror always forms an image behind it and the image formed is virtual.
Reason (R): According to the sign convention, the focal length of a convex mirror is positive.
6. Assertion (A): When objects are observed through hot air, they appear to be moving slightly.
Reason (R): Hotter air is optically denser and the cooler air is optically rarer.
7. Assertion (A): Frogs mostly occupy the second trophic level in food chains.
Reason (R): Frogs mostly feed on insects which depend on plants.

5. Multiple choice questions:

8. Which of the following substances when dissolved in equal volume of water, will have the highest pH value?
C. Sulphuric acid (b) Acetic acid (c) Magnesium Hydroxide (d) Sodium hydroxide

9. The action of which among the following is crucial to the formation of ozone?
 (a) Humans (b) Sunlight (c) Carbon di oxide (d) Chlorofluorocarbons
10. The focal length of the eye lens increases when eye muscles:
 (a) Are relaxed and the lens becomes thinner (b) contract and the lens become thicker
 (c) are relaxed and the lens becomes thicker (d) contract and the lens becomes thinner
11. For a convex mirror the image distance (v) = 5cm, focal length (f) = 10cm and height of the image (h) = 7.5cm. The correct representation according to sign convention is:
 (a) $v = -5\text{cm}$, $f = -10\text{cm}$, and $h_i = -7.5\text{cm}$ (b) $v = -5\text{cm}$, $f = 10\text{cm}$, and $h_i = -7.5\text{cm}$
 (c) $v = 5\text{cm}$, $f = -10\text{cm}$, and $h_i = 7.5\text{cm}$ (d) $v = 5\text{cm}$, $f = 10\text{cm}$, and $h_i = 7.5\text{cm}$
12. Which of the following is a correct combination of function and part of the brain?
 (a) Posture and balance: Cerebrum (b) Salivation: Medulla in midbrain
 (c) Hunger: Pons in hindbrain (d) Blood pressure: Medulla in hindbrain
13. The lining of the alimentary canal has certain muscles that contract rhythmically in order to push the food forward. This process is called:
 (a) Translocation (b) Transpiration (c) Peristalsis (d) Autotrophism
14. In the reaction of aqueous solution of barium chloride with aqueous solution of sodium sulphate, the aqueous solution formed will be:
 (a) BaCl_2 (b) BaSO_4 (c) Na_2SO_4 (d) NaCl

6. Case based questions:

15. A rainbow is a spectacular natural spectrum appearing in the sky after a rain shower. It is always formed in a direction opposite to that of the Sun. The water droplets suspended in the atmosphere act like tiny prisms. They refract and disperse the incident sunlight, then reflect it internally, and finally refract it again as it comes out of the water droplet.

Answer the following questions:

- 1) What are the three distinct optical phenomena involved in the formation of a rainbow? 1
- 2) Which colour component of white light bends the most, and which one bends the least? 1
- 3) Attempt either A or B 2

- a) Why is a rainbow always observed opposite the position of the Sun?

OR

- b) Can you observe a rainbow on the Moon? Give a reason for your answer.

16. Mineral acids are strong acids as compared to organic acids. Mineral acids are HCl , H_2SO_4 , HNO_3 which are obtained from minerals such as chlorides, sulphates and nitrates. Organic acids are present in living organisms. Strong acids are completely ionized in aqueous solution and their pH is close to 2. Weak acids do not ionize completely, their pH is close to 4. Acids combine with bases to form salts, which may be acidic, basic or neutral depending upon strength of acid and base.

- (i) Name an organic acid. 1
- (ii) Give two examples of weak acids. 1
- (iii) Attempt either A or B 2

- A. What is nature of gastric juice secreted in our stomach? What is its pH?

OR

- B. Name one antacid. Give its pH in aqueous solution.

17. Rohit saw an advertisement about iodised salt while watching TV. In the advertisement it was stated that one should take only iodised salt. He also remembered that the doctor has advised his elder sister to eat iodised salt when she had developed swollen neck. His teacher has also taught them about various animal hormones.

- (i) Name the disease from which Rohit's sister suffered. 1
- (ii) Why doctor has advised Rohit's sister to eat iodised salt? 1
- (iii) Attempt either A or B. 2

A. Which hormone is known as emergency hormone? How it helps in coping during emergency?

OR

B. Name an endocrine gland that secretes a hormone called insulin. Why are some diabetes patients treated by giving insulin injections?

18. When we eat food, our eyes, hands and mouth work in perfect coordination. The eyes focus on the food, the hands pick it up and take it to the mouth where it is chewed. All these actions are completed in a particular sequence. Similarly, internal functions of our body are carried out by the nervous system in a particular sequence.

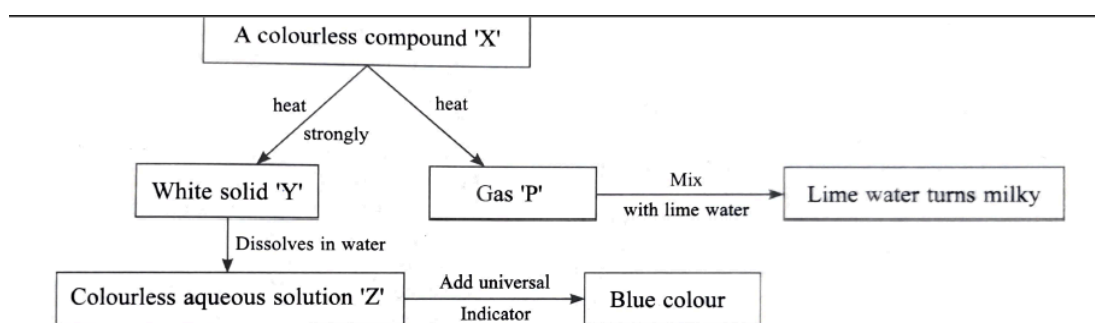
- (i) What is a reflex arc? 1
- (ii) How is the spinal cord protected? 1
- (iii) Attempt either A or B 2

A. How does an impulse travel in a nerve cell?

OR

B. Do plants also have nerve cells? How does coordination take place in plant cells?

19. Lime is an alkaline substance. The figure shows some of the properties of a calcium compound 'X'. The letters are not chemical symbols of substances. Answer the questions that follow:



(i) Name an acid which can liberate 'P' from 'X'. 1

(ii) Identify 'X' and 'Y'. 1

(iii) Attempt either A or B 2

A. Write chemical reaction from 'X' to 'Y' and identify 'P'.

OR

B. Identify 'Z' and write equation between 'Z' and 'P'.

20. In an experiment, Pooja used an equilateral triangular glass prism and projected a narrow beam of white light source from one side of the surface of the prism. She placed a screen on the other side and saw many colours appearing as patches on the screen. But when she used a red-light source, she could only see a red patch on the screen. Similarly, she used a blue and green light source and could only see one colour patch on both occasions.

(i) State the phenomenon that she was trying to demonstrate.

1

(ii) Give reason: Why she could not see any other colour when the red light was used?

1

(iii) Attempt either A or B

2

A. She also could relate to another natural phenomenon that we observe on a rainy humid day as sun comes out. What could be that phenomenon?

OR

B. State the reason that Pooja can give to her friends to explain the phenomenon observed by her in the experiment.

SOCIAL SCIENCE

(xv) Study the picture and answer the question.



Which of the following aspect best signifies this image of 'Germania'?

- A. Heroism and Justice
- B. Folk and Cultural Tradition
- C. Austerity and Asceticism
- D. Revenge and Vengeance



2.

What was Gandhi's demand related to the image?

- I. Demand for Swaraj
- II. Conservation of Forest
- III. Abolition of Salt Tax
- IV. The Britishers should quit India

3. Arrange the following in chronological order:

- I) Greek struggle for independence begins.
- II) Unification of Germany.
- III) Fall of Napoleon.
- IV) Unification of Italy.

- A. I,II,III,IV
- B. IV,I,III,II
- C. III,I,IV,II
- D. I,III,II,IV

4.A. "The decade of 1830 had brought great economic hardships in Europe". Support the statement with two arguments.

OR

4.B. State the contribution of Lord Byron in Greek War of Independence. When was the treaty of Constantinople signed?

5.A. What was inland emigration Act of 1859?

OR

5.B. Give the full form of HSRA. Who and when was it founded?

6.A. Which cultural elements played a prominent role in making of Nationalism in India? What did the nationalist do to develop a sense of collective belonging among Indians?

OR

6.B. Explain the Unification of Germany.

7. Two places **A and B** have been marked on the given outline map of India.

Identify them and write their correct names on the lines drawn near them.

A. Indian National Congress session at this place in 1920

B. The place where Mahatma Gandhi broke Salt Law.

SECTION-B GEOGRAPHY

8. Identify the soil with the help of the following features.

D. Red to brown in colour.

E. Sandy in texture and saline in nature.

F. Lacks humus and moisture.

A. Alluvial soil

B. Arid soil

C. Black soil

D. Laterite soil

9. Fill in the blank- Barley: Rabi crop, cotton: kharif, _____: zaid crop.

A. Wheat

B. Mustard

C. Soya bean

D. Cucumber

10. Why is conservation of flora and fauna important for all of us? Explain

11.A. Why India needs to plan its resource? Explain by giving suitable examples.

OR

11.B. Define Horticulture. Distinguish between Subsistence agriculture and Commercial agriculture by giving suitable examples.

12. On the same outline map of India locate and label the following with suitable symbols:

7. Identify the soil marked on the map

- OR**

9. Largest rubber producing state.

13. Study the cartoon thoroughly and mentioned what the two steering wheels symbolise.



14. In the question given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and chose the correct option:

OR

18.B. Differentiate between Federal and Unitary form of government with suitable examples.

SECTION-D-ECONOMICS

19. In the question given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and chose the correct option:

Assertion (A): Different people have different development goals.

Reason (R): People do not want freedom, equality, security and respect.

- A. Both A and R are true and R is the correct explanation of A.
- B. Both A and R are true but R is not the correct explanation of A.
- C. A is true but R is false.
- D. A is false but R is true.

20. What is the main criterion used by the World Bank in classifying different countries? What are the limitations of this criterion, if any?

21. How employment can be generated in rural areas?

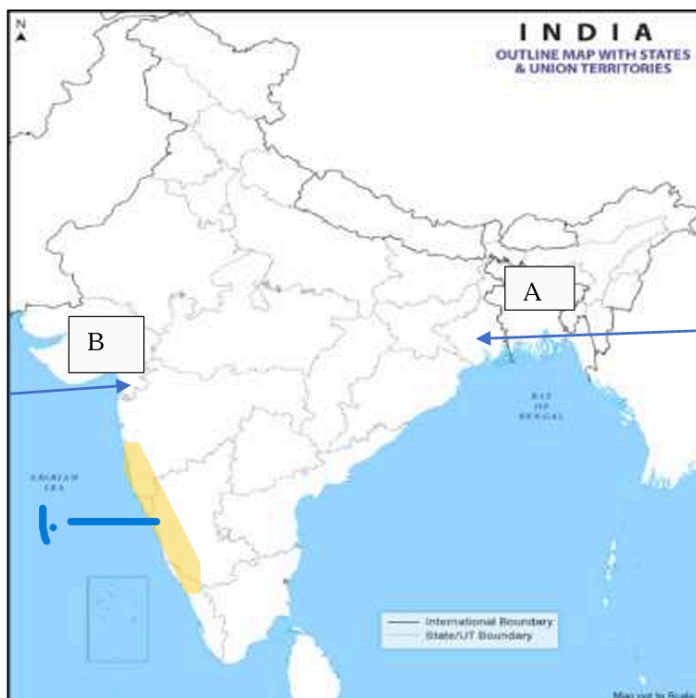
22. What is globalisation? What is the role of MNCs in the globalisation process?

23.A. Kerala, with lower per capita income has a better human development ranking than Haryana. Hence, per capita income is not a useful criterion at all and should not be used to compare states. Do you agree? Elaborate with reason.

OR

23.B. Write a note on MNREGA. Highlight its objectives.

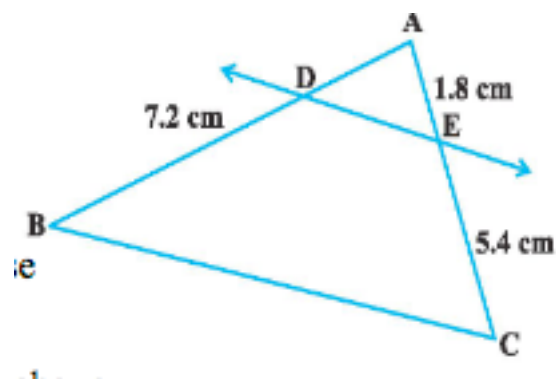
Map for Q.No.7 and 12



MATHEMATICS ASSIGNMENT

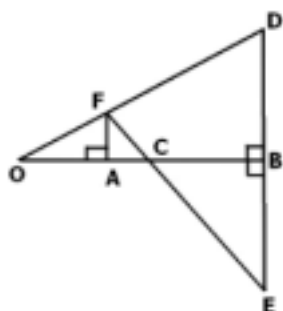
MATHEMATICS

1. If HCF and LCM of two numbers are 4 and 9696, then the product of the two numbers is:
(a) 9696 (b) 24242 (c) 38784 (d) 4848
2. If the HCF of 65 and 117 is expressible in the form $65m - 117$, then the value of m is (a) 4 (b) 2 (c) 1 (d) 3
3. A sweet seller has 420 kaju burfis and 130 badam burfis she wants to stack them in such a way that each stack has the same number, and they take up the least area of the tray. What is the number of burfis that can be placed in each stack for this purpose.
4. If α & β are the zeroes of the polynomials $f(x) = x^2 + x + 1$. Then find $\alpha^2 + \beta^2$.
5. Where does curve of $f(x) = x^2 - 2x - 8$ intersect x axis.
6. Five years ago, A was thrice as old as B and ten years later A shall be twice as old as B, then find the present age of A .
7. Rs. 4900 were divided among 150 children. If each girl gets Rs. 50 and a boy gets Rs. 25, then find the number of boys and girls.
8. Solve the following system of linear equations graphically:
 $3x + y = 10$, $x - y = 10$ Shade the region bounded by the above lines and y-axis.
9. In given diagram $DE \parallel BC$ Find AD in given diagram



10.

In the below Figure, OB is the perpendicular bisector of the line segment DE, FA ⊥ OB and F E intersects OB at the point C. Prove that $\frac{1}{OA} + \frac{1}{OB} = \frac{2}{OC}$



11.

$$\frac{1 + \tan^2 A}{1 + \cot^2 A} =$$

- (a) $\sec^2 A$ (b) -1 (c) $\cot^2 A$ (d) $\tan^2 A$

12

$$(\sec A + \tan A) (1 - \sin A) =$$

- (a) $\sec A$ (b) $\sin A$ (c) $\operatorname{cosec} A$ (d) $\cos A$

13

If $\cos(A - B) = \frac{\sqrt{3}}{2}$ and $\sin(A + B) = 1$, then the value of A and B, respectively are

- (a) 45° and 15° (b) 30° and 15° (c) 60° and 30° (d) none of these

14.

$$\text{Prove that } \frac{\cos \theta}{1 - \tan \theta} + \frac{\sin \theta}{1 - \cot \theta} = \sin \theta + \cos \theta .$$

15.

$$\text{Prove that } \frac{1}{2} \left\{ \frac{\sin \theta}{1 + \cos \theta} + \frac{1 + \cos \theta}{\sin \theta} \right\} = \frac{1}{\sin \theta} .$$

16 If P(1, 2), Q(4,6), R(5,7) and S(a, b) are the vertices of a parallelogram PQRS then

- (a) $a = 2, b = 4$ (b) $a = 3, b = 4$ (c) $a = 2, b = 3$ (d) $a = 3, b = 5$

17. Show that the points A(6, 2), B(2, 1), C(1, 5) and D(5, 6) are vertices of a square. Also find its area.
18. Find the ratio in which the point P(m, 6) divides the line segment joining the point A(-4, 3) and B(2, 8). Also find the value of m.
19. A man on cliff observes a boat at an angle of depression of 30° which is approaching the shore to the point immediately beneath the observer with a uniform speed. Six minutes later, the angle of depression of the boat is found to be 60° . Find the time taken by the boat to reach the shore.
20. The angle of elevation of a jet plane from a point A on the ground is 60° . After a flight of 15 seconds, the angle of elevation changes to 30° . If the jet plane is flying at a constant height of $1500\sqrt{3}$ m, find the speed of the jet plane.

ARTIFICIAL INTELLIGENCE

Class X Artificial Intelligence Assignment

- Q1. How to Create a Folder write down the steps.
- Q2. Define Operating System and explain the type and Functions.
- Q3. Draw the graphical representation of the Clustering AI model. Explain in brief.
- Q4. Write down the steps to create a folder in C: drive with your name.
- Q5. Explain the Confusion Matrix.
- Q6. What is Variable in python explain Token.
- Q7. Differentiate between intrinsic motivation and extrinsic motivation.
- Q8. In SMART goals, what does 'S' stand for?
- Q9. Why is data labeling important in ML learning and how does it impact the performance of the model?

Q10. Explain Rule-based AI models follow predefined rules to make decisions, while learning-based AI

models learn patterns from data to make predictions or decisions.

Q11. Define "Problem Scoping" in the AI Project Cycle and explain the purpose of the 4Ws Problem

Canvas.

Q12. Explain the Types of Learning-Based Models?

Q13. What are the steps you will perform to save a text file in Ubuntu?

Q14. How can you increase the performance of a computer?

MORAL SCIENCE AUGUST 2026

PREPARE A PICTURESQUE PROJECT ON ANY ONE OF THE TOPICS
FROM CHAPTER 10 OR CHAPTER 14

DO THE GIVEN ASSIGNMENT QUESTIONS FROM TERM-1 SYLLABUS