TRIPURA BOARD OF SECONDARY EDUCATION

Agartala : Tripura.

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MODEL QUESTION

CLASS - X

FOR THE ACADEMIC SESSION : 2020-2021

Model Question : Class X : English : 80 Marks : 2020-2021

Section A : Reading   **20**

1. Read the passage given below and answer the questions that follow :   **8**

a) The importance and advantages of reading books are many. Reading not only enhances our vocabulary or language skills but also widens our horizon and improves our social and thinking skill.s

b) The best way to begin to read is to start with the classics of literature. Classics are those books which have become recognized for their excellence. When one wants to read a novel, it is best to begin with the works of well known and established writers. The importance of reading the classics is that one will develop the habit of being satisfied only with the best of everything. Having once read the best, one will never compromise with anything less than good. Reading of classics from one's taste and judgement. Once this is achieved the reader can be left to himself.

c) Modern books, however, cannot be ignored. Modern poetry or novels should be read only after one's taste has been formed by reading the classics. One must always keepreading books on general topics for getting knowledge and information. In these days, it is necessary to know a great deal of many things. Books on history, politics and science should always be widely read.

d) It is wise to consult a teacher or a well-read librarian. Attempt should always be made to get the best available books. One should also read books dealing with the people and problems of one's country. One should read books on self-improvement or related to some vocation in order to be updated and in sync with the times.

e) The man, who has stopped reading as soon as he begins to earn, has shut the doors to information and self-improvement. For specialized knowledge of one's vocation, one must continue reading as it is sureto increase one's efficiency.

f) As for the choice of books, what is good for one may not be so for another. Thus no reading could be compulsorily prescribed for all. A student is more likely to be attracted to those books which are on his prescribed course of study than general reading. As one's interests grow, testes are more specialized and books are picked up for a variety of reasons not always connected with one's vocation.

g) Reading of books is a pleasure. It has a joy of its own. We forget our cares and anxieties for the time being and live in a world created for us by the author.

Attempt the following questions on the basis of the passage you have read.

1.A Choose the correct option :   **1x2**

    (a) According to this passage, ... can advise us while choosing books for reading.

        (i) a teacher or a librarian.   (ii) a friend

        (iii) a neighbor   (iv) uncle

(b) The best way to start reading is to start with ....

   (i) classics of literature   (ii) Science fiction

   (iii) modern novels.   (iv) modern poetry

1.B Answer the following questions.   **1x5**

   a) What do we learn from reading?

   b) What are classics ?

   c) What is the importance of reading a classic ?

   d) Why should one read books on self improvement ?

   e) What does reading of books provide us with ?

1.C Find the word from the passage which means the same as :   1

      (a) to go to somebody for advice .

2. Read the (Discursive) passage given below and answer the questions that follow:
                                                                       12

Obesity Among Canines

a) If you thought that overwight was a problem among humans alone, then think again. A recent study carried out in UK on the state of obesity among pets revealed startling facts. According to this report, there are almost 45% pets in the country that are overwight.

b) According to the findings, what causes this overweight problem is the feeding of leftovers. In fact this custom is regarded as the biggest factor causing overweight, according to 200 vets and 1000 pet owners. The report found that nearly 45% of the dogs were overweight while the obesity rate among cats was slightly lower, at 40%. Almost one in three rabbits (28%) and guinea pigs fell into the obese cetagory, while 15% of caged birds were also fund to be too fat. Of their owners,what the report revealed was that two out of every three owners believed their pets were the correct weight. Around three in four vets believe that pet obesity is on the rise.

c) When contacted by the researchers, vets came forward with the opinion that the root cause of pet weight gain was that the owners of these animals and birds were not following feeding guidlines. Along with feeding them with leftoves, these pets were not given adequate exercise. This problem was most marked among dog owners where also 78% of them were found to be indulged in by their owners.

d) Besides lethargy and eating problems, these overweight pets suffer from a myriad of health issues according to Zara Boland, founder vet vocice.These animals run the risk of osteoarthritis, cardiovascular disease, and diabetes. There is nothing 'cuddly' above an obese pet, shed adds.

e) Obese animals have the same symtoms as obese humans. Their obesity causes hem discomfort, and illness and can cause result in both emotional distress and financial pres-sures for owners, and has been proven to reduce actual life length.

f) These vets say that they are committed to continuing pushing the pet health message until overweight pets are no longer an increasing and widespread concern. To keep their pets in the best of health these vets advised their owners to exercise their dog for thirty minutes daily for adult dogs, and forty minutes for cats.

2.A Answer the following questions in about 30-40 words: **2x4**

    a) What were the findings of the UK study on animals ?

    b) What accoridng to the vets was the cause of pet weight gain ?

    c) What are the health problems that overwight pets are prone to ?

    d) How are vets trying to overcome this problem ?

2.B On the basis of your reading of the passage, choose the right answer : 1x2

    a) There are almost .... pets in the country that are overweight.

        i) 50% (ii) 40% (ii) 45% (iv) 30%

    b) The vets advised their owners to exercise their dogs for .... twice daily.

        i) 20 minutes (ii) 30 minutes (iii) 10 minutes (iv) 25 minutes.

2.C Find out the words from the passage which means the same as :   **1x2**

    i) a lack of energy and enthusiasm (para–)

    ii) a physical or mental feature which is regarded as indication of a disease (para–5)

Section - B : Writing and Grammar :   **30**

3. a) Write a letter to the Editor of a local newspaper complaining against the scarcity of water in your locality. You are Bisha/Baishali of Ramnagar, Tripura. Write the lettter within 100-150 words.   **8**

<div align="center">OR</div>

(b) You are raima/Raghu of Udaipur, Tripura. Everyone knows how important it is to maintain a safe distance to check the spread of Corona Pandemic but the careless attitude of people is bothering you. Write a letter to the Editor of a local daily expressing you concern and suggesting measure that may be taken. Write the letter with 100-150 words.

4. (a) Write a story within 100-150 words with the help of the following cues and add a suitable title to you story.

    (A hungry fox in a jungle –came to see fresh grapes –jumped to reach a bunch of grapes but failed – left the place saying 'The grapes are too sour to eat'.)

<div align="center">OR</div>

(b) Saima was just ten when she lost her parents. She lived all lone in the thick forest of Baramura. All alone!!! not really. Forest was her foster mother. Forest lived in her heart and she in the forest ..... (Complete the story within 100-150 words and add a suitable title).10

5. Fill in the blanks with the correct form of the word in the bracket. Write the answers in your answer-sheet against the correct blank numbers.   **4**

    Karthik, (a) .... (which) is a writer, penned a book titled 'The Ashes of the Prey', a thriller novel based (b) .... (upon) a lawyer who (c) .... (ruin) into piles of trouble after (d) .... the accident.

6. In the following paragraph, there is a word missing in each line. Write the missing word along with the one that comes before and the one that comes after it.

	Before	Word	After
a. The telephone there for your convenience, not	…………	.. ……….	………….
b. for convenience of your callers. Yet, as soon as .	……….	.. ……….	………….
c. we hear the phone ring, we act if we are fire fighters	……..	………….	………….
d. rushing to the fire-alarm. We run pick it up as if	…………	……….	…………

our lives depend on call being answered at once.

7. Rearrange the following word or phrases to make meaningful sentences.

(a) the temple architeture/form an /the sculptures and paintings/of/essential part

(b) the architecture /engineering marvels/is both / an artistic masterpiece/and an in some temples

(c) is/suitated in/ the Konark temple / dedicated to / north-eastern corner of Puri/the Sun God

(d) the stone / temple / of stone / types / made / from three/ was

SECTION-C : Literature   30

8. Read the following extract and answer the questions as follows in not more than 10-15 words each.

A. On that lovely autumn day I was accompained by my daughter Zenani on the podium Mr. de Klerk was first sworn in as second Deputy President. Then Thabo Mbeki was sworn in as first Deputy President. When it was my turn I pledged to obey and uphold the constitution and to devote myself to the well-being of the Republic and its people.

(a) Who is 'T' referred to here ?

(b) Who was sworn in as the first Deputy President ?

(c) The speaker pledged to devote _____ to the well-being of the Republic.
   (Fill in the blanks)

d) Find out from the extract a word which means 'stage'.

<div align="center">OR</div>

"Some say the world will end in fire
Some say in ice.
From what I've tasted of desire
I hold with those who favour fire".

(a) Who is the speaker of these lines?

(b) What has the poet tasted ?

(c) What does the word 'desire' signify here ?

(d) The poet thinks that the world will end in -
        i) storm (ii) fire (iii) flood (iv) cyclone

9. (A) Answer any three form the following questions in 30-40 words each . 2x3

i) Why does the postmaster send money to Lencho ?

ii) How does the poet, Adrienne Rich describe the 'forest that was empty'?

iii) Where and what, according to Leslie Norris, should the tiger be doing ?

iv) What proves that 'Baking' was indeed a profitable profession in the old days?

(B) Answer any two to the following within 30-40 words: **2x2**

(i) Why is Mrs. Pumphery worried about Tricki ?

(ii) Who was Horace Dunby ?

(iii) What was the cause of Matilda's ruin ?

10. Answer any one of the following questions within 100-150 words.   **8**

a) From the Diary of Anne Frank throws light on 'teacher-student relationship, class atmosphere and discipline'-Illustrate.

OR

b) What lesson does 'The Sermon at Benares' teach? Explain your answer in the light of Gautama Buddha's conversation with Kisa Gotami.

11. Answer any one of the following questions (word limit-= 100-150)   **8**

Why do you think Bholi is called Sulekha in the end of the story ? Explain how Bholi was neglected as a girl child and the way education transformed her to Sulekha.

OR

'Footprints without feet' shows the negative value of science when it is misused. What moral does the story give out ? How should science be used ?

Model Question

## Class - X : Mathematics (Basic) : 80 Marks : 2020-2021

Section- A : Each Question Carries 1 Mark : 1 x 20 = 20

I) Choose the correct answer :   *1x5*

1. The two roots of the quadratic equation $x^2 - 4 = 0$ are

     a) 2, 2   (b) –2, 2   (c) –2, –2   (d) 2, 0

2. In the equation $2x - 3y = 5$ if the value of y is 3 then the value of x is

     a) –7   (b) 14   (c) 7   (d) –14

3. In the AP : $\dfrac{3}{2}, \dfrac{1}{2}, -\dfrac{1}{2}, -\dfrac{3}{2}, \ldots\ldots$ the common difference is

     a) –1   (b) 2   (c) 1   (d) 4

4. The distance of the point P (–6, 0) from the origin is

     a) 36   b) 3   (c) 6   (d) –6

5. If the radius of a sphere is 3cm, then its volume is

     (a) $4\pi r^3$ cm³   (b) $\dfrac{4}{3}\pi r^3$ cm³   (c) $4\pi r^2$ cm³   (d) $\dfrac{3}{4}\pi r 3$ cm³

II) Answer the following questions :   *1x5*

6. In the given figure AB is a tangent to the circle and OB is the radius, then Find $\angle$ OBA .
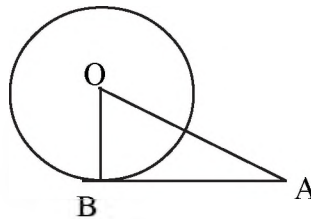
7. The value of cos 60⁰

8. In the given figure DE ‖ BC, If AE=1.8 cm, EC = 5.4 cm, and BD=7.2 then AD=?
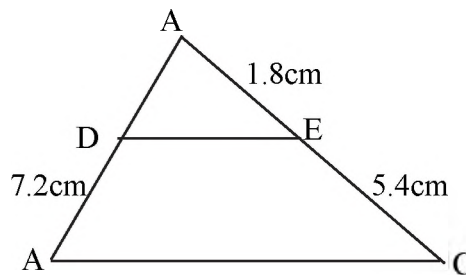
9. The mid-point of the line segment joining (0,0) and (3, –6) is _____.

10. For the following frequency distribution

Class	0–5	5–10	10–15	15–20	20–25
Frequency	8	10	19	25	8

The upper limit of mode class is _____.

III) Fill in the Blanks :   1x5

11. If 2 is a zero of the polynomial $ax^2 - 2x$, then the value of 'a' is _____.

12. If area of $\triangle$ ABC is zero, then the points A , B and C are _____.
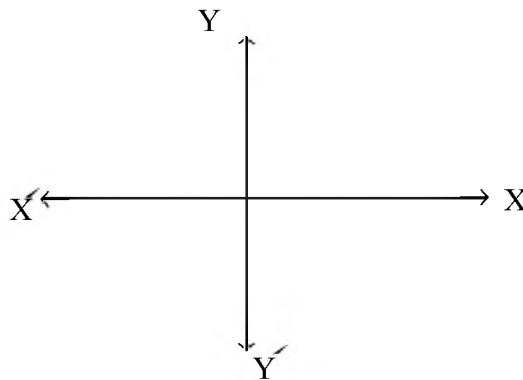
          * OR

The distance between the point (a,b) and (–a, –b) is equal to _____.

13. If 6, x, 8 are in A.P. then x is equal to _____.

14. Perimeter of a circle with radius r is _____.

15. If cos A= sin 42^0 , then the value of A is _____.

IV) Answer to the following questions : 1x5

16. The graph y = p(x) is given below for the polynomial p(x) . Find the number of zeros of p(x).

17. Express the number 140 as a product of its prime factors.

18. The radius of a cone is 3cm and height is 7cm. Find its volume.

          OR

If the radius of a hemisphere is 2.1cm, then find its volume.

19. In the given figure $\triangle ODC \sim \triangle OBA, \angle BOC = 125^0$ and $\angle CDO = 70^0$.

       Find $\angle OAB$.
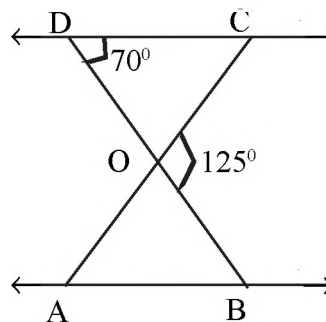
20. If P (E) = 1/3 , What is the probability of 'not E' ?

Section- B : Each Question Carries 2 marks : 2x6=12

21. For what value of k, x–3y=7 and kx+6y=5 will have no solution.

22. Find the quadratic polynomial whose sum and product of zeros are 6 and –2 respectively.

          OR

    Find the value of $p(x) = x^2+x+1$ when x = –1.

23. In the given figure, the angle of elevation of the top of a tower AC from a point B on the ground is 60^0. If the height of the tower is 20m, find the distance of the point from the foot of the tower.

C

20 m

A   60°

B
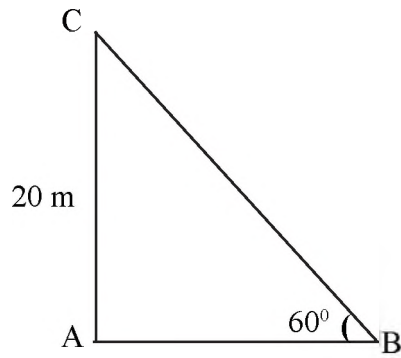
24. A die is thrown once. Find the probability of getting (i) a prime number (ii) an odd number.

* OR

Two coins are tossed simaltaneously. What is the probability of getting (i) at lest one head (ii) no head?

25. Find the L.C.M of 17, 23 and 29 .

26. If tan A = cot B, Prove that A + B = 90^0.

Section-C : Each Question Carries 3 Marks : 3x8=24

27. If the 3rd and the 9th terms of an AP are 4 and –8 respectively, which term of this AP is zero ?

28. Find the area of the triangle whose vertices, taken in order are (–4, –2), (–3,–5) & (3,–2) .

29. Evaluate ः 5 $\cos^2 60^0$ + 4 $\sec^2 30^0$ – $\tan^2 45^0$

* OR

If $\cot \theta = \dfrac{7}{8}$ then evaluate $\dfrac{(1+\sin \theta)(1-\sin \theta)}{(1+\cos \theta)(1-\cos \theta)}$.

30. The cost of fencing a circular field at the rate of Rs. 24 per metre is Rs. 5280. The field is ploughed at the rate of Rs. 0.50 per m^2. Find the cost of ploughing the field. (take $\pi = \dfrac{22}{7}$)ा

* OR

The wheels of a car are of diameter 80 cm each. How many complete revolutions does each wheel make in 10 minutes when the car is travelling at a speed of 66 km per hour ?

**31.** Solve ः 100x^2 – 20x +1 =0

* OR

$x + \dfrac{1}{x} = 3$, x ≠ 0

32. A letter is selected at random frm the set of English alphabets. What is the probability that it is a vowel ?

33. Prove that $\sqrt{3}$ is an irrational number.

34. From a point (P) on the ground, the angles of elevation of the bottom (B) and the top (A) of a transmission tower fined at the top of a 20m high building (BC) are 45^0 and 60^0 respectively. Find the height of the tower.
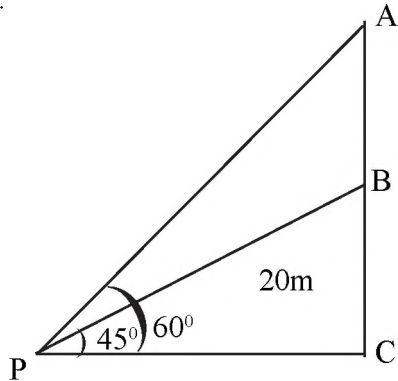
Section-D : Each Question Carries 4 Marks : 4x6=24

35. Solve ⁚ $3x + 4y = 10$

$\qquad$ $2x - 2y = 3$

$\qquad$ *** OR**

$$\frac{5}{x} - \frac{3}{y} = 2$$

$$\frac{7}{x} - \frac{4}{y} = 3$$

36. Prove that in a right triangle, the square of the hypotenuse is equal to the sum of the squares of the other two sides.

37. Draw a circle of radius 6cm. From a point 10 cm away from its centre, construct the pair of tangents to the circle. (Write only the constructional procedure but no proof in to be given. Traces of construction must be clear).

38. Prove that the lengths of tengents drawn from an external point to a circle are equal and they subtend equal angles at the centre.

$\qquad$ *** OR**

Prove that the angle between the two tangents drawn from an external point to a circle is supplementary to the angle subtended by the line-segment joining the points of contact at the centre.

39. A medicine capsule is in the shape of a cylinder with two hemispheres stuck to each of its ends (see figure). The length of the entire capsule is 14 mm and the diameter of the capsule is 5mm. Find its surface area.
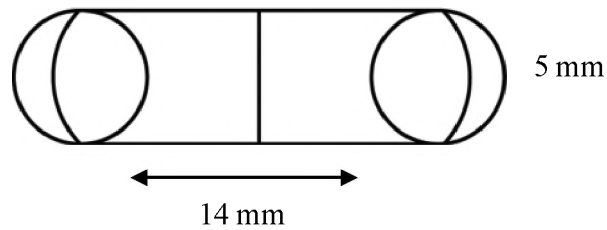
40. Find the median for the following frequency distribution :

Height (in cm)	160–162	163–165	166–168	169–171	172–174
Frequency	15	117	136	118	14

* OR

The mean of the following distribution is 62.8. Find the value of x.

Class	Frequency
0–20	5
20–40	8
40–60	x
60–80	12
80–100	7
100–120	8

* Additional Questions

Model Question

## Class - X : Mathematics (Standard) : 80 Marks : 2020-2021

Group-A : Each Question Carries 1 Mark : 1 x 20 = 20

I. Choose the correct answer :   1x5

1. The value of k for which the quadratic equation $kx(x-2)+6 =0$ has equal roots

    a) k= 6   (b) k=2   (c) k = –6   (d) k=4

2. The pair of linear equations y = 0, y = – 4 has

    a) one solution (b) two solutions (c) infinitely many solutions (d) no solution.

3. Which term of the A P : 3, 8, 13, 18, ... is 78 ?

    a) 14   (b) 15   (c) 16 (d) 17

4. The distance of the point P(3, –5) from x-axis (in units) is

    a) 3   b) –5   (c) 5   (d) –3

5. The radius of a sphere (in cm) whose volume is 36π cm^3, is

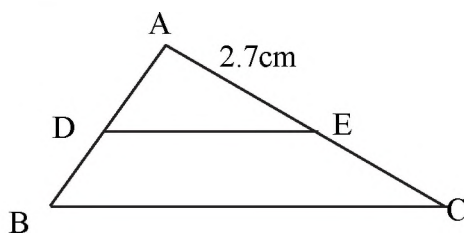   (a) $\sqrt{3}$ (b) $3^{\frac{1}{3}}$ (c) $3\sqrt{3}$ (d) 3

II. Answer the following question :   1x5

6. In the given figure PQ is a tangent to the circle and $\angle QOP = 70^0$

    then $\angle QPO = ?$
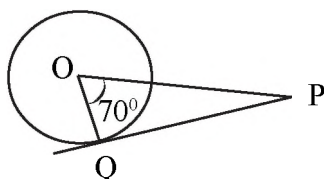
7. Given than $\sin\alpha = \dfrac{\sqrt{3}}{2}$ and $\cos\beta = 0$, then the value of $\beta - \alpha$ is

8. In the given figure DE || BC . If $\dfrac{AD}{BD} = \dfrac{3}{2}$ and AE = 2.7 cm,

    then EC is equal to _____.

9. If A (m,7) is the mid point of the line segment joining the points P(–6, 10) and Q (–2, 4) then the value of m is _____.

10. If the mean of a data is 27 and its median is 33 then the mode is _____.

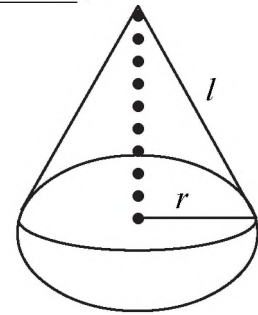**III. Fill in the blanks :**

11.If $4x^2 - 6x - m$ is exactly divisible by x – 3, then the value of m is_____.

12. AOBC is a rectangle whose three vertices are A (O,–3), O (0,0) and B (4,0) ׀ The length of its diagonel is _____.

The point on the x-axis which is equdistant from (–6, 0) and (4, 0) is _____ ।

13. If (P–1), (P+3), (3P–1) are in AP, then P is equal to _____ ।

14. The total surface area of the given solid figure is _____ ।

15. If $\sin\theta - \cos\theta = \sqrt{3}\,\cos\theta, (\theta \neq 90^0)$
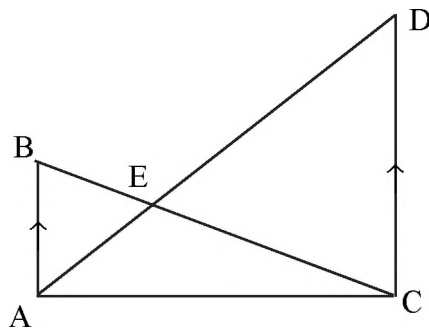
then the value of $\tan\theta$ is _____ ।

IV. Answer to the following questions

16. Find the sum of the roots of the equation $x^2 - 6x+2=0$

17. Find the coordinate of the image of a point (3, –5) with respect to the Y-axis.

18. The diameter of a sphere is 14 cm. Find its surface area.

The diameter of a hemisphere is 4.2 cm. Find its valume.

19. In the adjoining figure, AB ‖ CD, AB=4 cm, AE=3 cm and CD=10 cm. Find the value of DE.

20. If the probability of an event E happening is 0.023, then find P (E) .

Group- B : Each Question Carries 2 Marks : 2x6=12

21. Find the value of k for which the system of the linear equations 2x+5y=3 and (k+1)x + 2(k+2)y=2k will have infinite number of soultion.

22. If α and β are the zeros of the polynomial $2y^2 + 7y + 5$, then find the value $\dfrac{1}{\alpha}+\dfrac{1}{\beta}$.

If one zero of the polynomial $5x^2+13x-p$ is reciprocal of the other, then find p.

23. In the given figure the angle of elevation of the top of a tower (AB) from a point (P) on the ground, which is 30 m away from the foot of the tower is 30^0. Find the height of the tower.
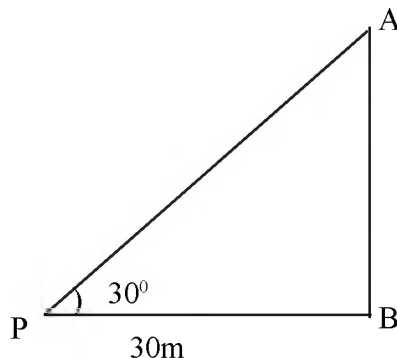
24. A child has a die whose 6 faces show the letters given below :

| A | B | C | D | E | A |

The die is thrown once. What is the probability of getting (i)A, (ii) D ?

* OR

A card in drawn at random from a well shuffled deck of 52 playing cards. Find the probability that the card drawn is (i) a card of spade or an ace, (ii) a black king.

25. Find the zeros of the polynomial $x^2 - 7x + 10$.

26. Prove that $\tan 10^0. \tan 75^0. \tan 15^0. \tan 80^0 = 1$

Section- C : Each Question Carries 3 Marks : 3x8=24

27. Find the sum : $34 + 32 + 30 + ... + 10$

28. Find the ratio in which the point P(11,y) divides the line segment joining the points A (15, 5) and B (9,20). Also find the value of y.

29. Evaluate ః $\cot^2 30^0 - 2\cos^2 30^0 - \dfrac{3}{4} \sec^2 45^0 + \dfrac{1}{4} \csc^2 30^0$

* OR

If $\tan (A+B) = \sqrt{3}$ and $\tan (A-B) = \dfrac{1}{\sqrt{3}}$, $0^0 < A + B < 90^0$ and $A > B$ find the value of A and B.

30. A chord of a circle of radius 14cm makes a right angle at the centre. Find the area of the minor segment of the circle.

* OR

The minute hand of a clock is 12cm long. Find the area of the face of the clock described by the minute hand in 35 minutes.

31. Slove ః $\sqrt{2} x^2 + 7x + 5\sqrt{2} = 0$

OR

$\dfrac{1}{x} - \dfrac{1}{x-2} = 3, \quad x \neq 0, 2$

32. A game consists of tossing a one rupee coin three times and noting its outcome each time. Raju wins if all the three tosses give the same result. Calculate the probability that Raju will loss the game. Write all the possible outcomes also.

33. Find the mode of the following data :

Class	0-20	20-40	40-60	60-80	80-100	100-120	120-140
Frequency	6	8	10	12	6	5	3

34. Of two towers, 150 meters apart, the height of one is double the other. From a point on the line joining the bottoms of the two towers, the angle of elevation of the taller tower and the other tower are found to be 60^0 and 30^0 respectively. Find the height of the two towers.

Section D : Each Question Carries 4 Marks : 4x6=24

35. Solve $:$ $2x - \dfrac{3}{y} = 9$

$3x + \dfrac{7}{y} = 2$, $y \neq 0$

OR

Solve the following system of equations graphically :

3x+2y=4

2x–3y=7

36. Prove that the lengths of tangents drawn from an external point to a circle are equal and they subtand equal angles at the centre.

37. From an exterior point draw a pair of tangents to a circle of radius 4cm, which are inclined to each other at an angle of 60^0. (Write only the constructional procedure but no proof is to be given. Traces of construction must be clear.)

38. Side AB and AC and median AD of a triangle ABC are respectively proportional to sides PQ and QR and median PM of another triangle PQR. Prove that $\triangle$ ABC ~ $\triangle$ PQR
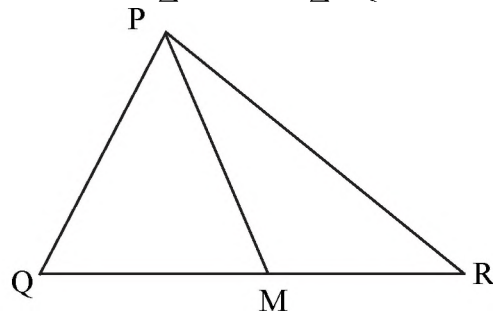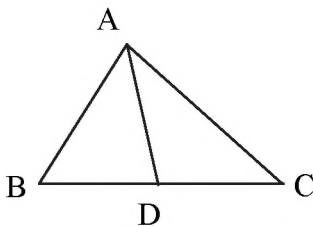
OR

BL and CM are medians of a $\triangle$ ABC, right angled at A. Prove that $4 (BL^2 + CM^2) = 5BC^2$
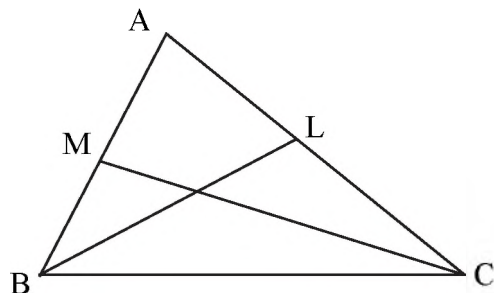
39. A vessel is in the form of a hemisperical bowl mounted by a hollow cylinder. The diameter of the hemispere is 14 cm and total height of the vessel is 13cm. Find the capapcity and inner surface area of the vessel.

* OR

From a solid right circular cylinder with height 12cm and vadius of the base 5cm, a right circular cone of the same height and the same base radius is removed. Find the volume and total surface area of the remaining solid. [$\pi = 3.14$]

40. The mean of the following frequency distribution is 57.6 and the total number of boservation is 50.

Class	0–20	20–40	40–60	60–80	80–100	100–120
Frequency	7	f_1	12	f_2	8	5

Find f_1 and f_2.

* Additional Questions

Model Question

Class - X : Science (Biology) : 30 Marks : 2020-2021

Section-A: **Each Questions Carries 1 Marks**   **1 x 8 = 8**

1. The antotrophic mode of nutrition requires –
   a) Carbon dioxide and Water (b) Chlorophyll (c) Sunlight (d) All of the above.

2. The kidneys in human being are a part of the system for –
   a) Nutrition (b) Respiration (c) Excretion (d) Circulation

3. Which of the following equation is appropriate for photosynthesis –
   (a) $6CO_2 + 12H_2O$ .... $C_6H_{12}O_6 + 6CO_2 + H_2O$
   (b) $6CO_2 + 12H_2O$ + sunlight .... $C_6H_{12}O_6 + O_2 + 6H_2O$
   (c) $6CO_2 + 12H_2O$ + Chlorophyll + Sunligh.......... $C_6H_{12}O_6 + 6CO_2 + 6H_2O$
   (d) $6CO_2 + 12H_2O$ + Chlorophyll + Sunligh .... $C_6H_{12}O_6 + 6CO_2 + 6H_2O$

4. The first trophic level of a food chain is occupied by –
   a) Herbivores (b) Carnivores (c) Green Plants (d) Decomposers

5. Name of the chemical substance which is mainly responsible for Ozone layer depletion.

6. Give example of one Biodegradable Waste ?

7. Who is considered as the father of Genetics ?

8. Give the name of chief respiratory substrate of living cell ?

Section - B   **Each Questions of Marks-3**   **3x4=12**

9. How is the sex of the child determined genetically in human beings ?

10. Write 3(three) major difference between acrobic and anaerobic respiration?

11. What is Ozone ? How is it formed ? Why is it necessary to conserve it ?

12. What is the unit of asexual reproduction ? Mention 2(two) major differences between asexual and sexual reproduction ?   (1+2)

    OR

    What is vegetatine propagation ? Write any two advantages of vegetatine propagation ? 1+2

Section - C   **Each Questions Carries 5 Marks**   **5x2=10**

13. Draw a laballed diagram of the internal structure of human heart ? Discuss the flow of circulation through it ?   3 (Fig.2+lab1)+2

    OR

    a) Draw a neat laballed diagram of a nephran ?
    b) Mention any two methods by which plants excrete their waste products? 3+2

14. Define regeneration ? Give example ? Write 3(three) major contraceptives used to prevent unwanted pregnancy?   1+1+3

    OR

    a) What is placenta ? Mention any 2(two) functions of it.
    (b) Write the role of Seminal Vesicle and prostrate gland present in human male?   1+2+2

Model Question

Class - X : Science (Chemistry) : 25 Marks : 2020-2021

Section-A: **Each Question Carries 1 Marks**   **1 x 6 = 6**

Anser the following questions in one word or in one sentence :

1. Why the iron materials are coated with paint ?
2. Complete the reaction –
   $BaCl_2 + H_2SO_4 \rightarrow BaSO_4 +$ ....
3. What is the colour of pure copper sulphate solution ?
4. Name the acid that is present in lemon.
5. Is the substance obtained by combustion of magnessium acidic or basic ?
6. Name one liquid non-metallic element.

Section - B   **Each Question Carries 3 Marks**   **3x3=9**

Give brief answer of the following questions :

7.   (i) Name one indicator.
     (ii) What is 'Neutralization Reaction' ?
     (iii) Why the aqueous solution of acid can conduct electricity ?   1+1+1
8.   (i) What is 'Reactivity Series' ?
     (ii) Explain whether the following reaction can occur or not –
         $Cu + FeSO_4 \rightarrow CuSO_4 + Fe$ 1+2
9.   (i) What is the main constituent of CNG ?
     (ii) What is unsaturated hydrocarbon ? Explain with example ?   1+2

Section - C   **Each Question Carries 5 Marks**   **5x2=10**

Answer the following questions

10.   (i) What is catenation ?
      (ii) What is homologous series ? Give example.
      (iii) Write IUPAC name of the following compound –
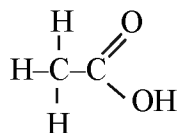
      (iv) Write structural formula of pentanal .   1+2+1+1
11. (i) Mention one limitation of Mendeleev's periodic table.
      (ii) How many 'Group' and 'Period' are there in Modern Periodic table ?
      (iii) Write the electronic structure of chlorine atom.
      (iv) Atomic number of nitrogen and phosphorous are 7 and 15 respectively. Which one is more electronegative and why ?   1+1+1+2

Model Question : Class X : Science (Physics) : 25 Marks : 2020-2021

Section-A   **Each Question Carries 1 Mark**   1x6=6

i) Answer in a word/sentence   1x5

1. A beam of white light splits when it passes through a prism. Name this phenomenon.

2. Name of physical quantity whose unit is volt/ampere.

3. Which is having more resistance– (i) 220v–100w bulb or (ii) 220v–60w bulb and why ?

4. Two magnets are lying side by side as shown below. Draw magnetic field lines between poles P and Q.

S	N

S	N

     P   Q

5. Name the rule which determines the direction of magnetic field around a straight current carring conductor.

ii) Choose the correct option : 1x1

6. The phenomenon of electromagnetic induction is – (i) the process of charging a body (ii) the process of generating magnetic field due to current passing through a coil (iii) producing induced current in a coil due to relative motion between a magnet and a coil (iv) the process of rotating a coil of an electric motor.

Section-B   **Each Question Carries 3 Marks**   3x3=9

7. Draw a ray diagram of the image formed when the object is placed in front of a concave mirror in between the focus and the pole of the mirror. What will be the nature and size of the image formed?

                2+1

* OR

Draw a ray diagram to show the formation of image by a convex lens when an object is placed at 2f of that lens in front of it. Write about the nature of the image.   2+1

8. Why specturm is formed when white light is passed through a glass prism ? Draw the ray diagram.

                2+1

*OR

Why do the stars appear to twinkle but the planets do not ? Explain your answer .

9. State Right Hand Thumb Rule. A current through a horizontal power line flows in east to west direction. What is the direction of magnetic field at a point directly below it ? Explain it.

* OR

What is the direction of the magnetic field lines outside the bar magnet ? Why two magnetic lines of force don't intersect each other ?   1+2

Section-C   **Each Question Carries 5 Marks**   5x2=10

10)(i) A ray of light travelling in air enters obliquely into water. Does the light ray bend towards the normal or away from the normal ? Darw a ray diagram.

(ii) Define the term absolute refractive index of a medium. If the speed of light in vacuum is 3 x 108m/s, find the speed of light in a medium of absolute refractive index 1.5.

OR

i) Define the power of a lens. What do you mean by the statement- 'the power of a lens is +2.0D^3.

(ii) You are provided with two convex lenses of focal length 15cm and 25cm respectively. Which of the two is of larger power ? Give reason.

11. (i) State Ohm's law. Derive the definition of resistance from it.

(ii) How the resistance of a conductor depends on its length and corss-sectional area ?

OR

i) Write an expression for the heat produced by electric current and state Joule's Law.

ii) An electric refrigerator of power 400 W is used for 8 hours per day. Find the cost of electric energy consumed in 30 days at the rate of Rs. 3.00 per kWH.

MODEL QUESTION

Class - X : History : 20 Marks : 2020-2021

Group-A : Each Question Carries 1 Mark :1x6=6

A) Choose the correct answer :   *1x2*

  1. The Treaty of vienna was signed in _____

    a) 1810 (b) 1812 (c) 1815 (d) 1820.

  2. The book 'Hind Swaraj' was written by ____

    a) Mahatma Gandhi (b) Jawaharlal Nehru (c) Maulana Azad (d) Lal Bahadur Shastri.

B) Answer the following questions in one complete sentences : *1x4*

  3. Who was Frederic Sorrien ?

  4. What is the full form of IMF ?

      * OR

 What is Trade guild ?

  5. Who painted the image of 'Bharat Mata' at first?

  6. What do you mean by G-77.

      * OR

  What do you mean by Proto-industrialistion ?

Group-B : Each Question Carries 3 Marks : 3x 6

Answer the following questions within 60 word each.

  7. Who was Giuseppe Mazzini ? Describe his role in the unification of Italy.

      OR

Write a short note on unification of Germany .

  8. Mention any three features of Bretton Woods Agreement.

      * OR

Why did industrial production in India increase during the First World War ?

Group - C : This question Carries 5 Marks :

  9. What was the incident of Jallianwala Bagh ? What were the effects of the Jallianwala Bagh massacre ?   3+2

    OR

Under what circumstances the civil Disobedience movement was launched ?

Group-D Map poiting.   3

10. Locate and lebel the place in the given outline political map of India. 1x3

  a) The place where congress sessiion was held in December 1920.

  b) The place in Punjab where a massacre took place.

  c) The place where Gandhiji manufactured salt by heating sea water.

Model Question

Class - X : Sub - Social Science (Democratice Politics) : 20 Marks : 2020-2021

Section-A   **Each Question Carries 1 Mark**   **1x 4 = 4**

Answer the following questions in a word :

1. What percentage of people in Belgium speak Dutch?

2. Write any one Democratic Country in the World ?

Choose the correct answer :

3. 'Education' falls under which list in the constitution of India ?

    a) Central list (b) State list (c) Concurrent list (d) None the these.

4. What is the guiding philosophy of the Bharatiya Janata Party.

    a) Bahujan Samaj (b) Revolutionary democracy (c) Integral Nationalism (d) Modernity.

Section - B   **Each Questions Carries 3 Marks**   **3x2=6**

Answer the following questions in not more than 60 words :

5. Why power sharing is desirable ?

6. What is decentralisation of Power ?

*OR

     State any three functions of local government ?

Section - C   **Each Questions Carries 5 Marks**   **5x2=10**

Answer the following questions within 150 words.

7. What are the conditions under which democracies accommodate social diversities?

8. State the various functions of Political Parties ?

OR

     How can Political Parties can be reformed ?

* Additional Questions.