Science

Sample Paper Class VII

Term 1 (2019-2020)

Time: 3 hrs   **MaxMarks:80**

General Instructions:

a) All questions are compulsory
b) The question paper contains 3 sections A, B and C
c) Section A contains Question No. 1-10 that are MCQs and carry 1 mark each and Question No. 11-20 that are very short answer type questions which carry 1 mark each.
d) Section B contains Question No. 21-30 that are short answer type questions which carry 3 marks each.
e) Section C contains Question No. 31-36 that are long answer type questions which carry 5 marks each.
f) Internal choice has been given in 3 marks and 5 marks questions.

SECTION A

Q1. Which part of the plant takes in carbon dioxide from the air for photosynthesis?
(1)

   (i) root hair   (ii) stomata   (iii) leaf veins   (iv)sepals

Q2. Which of the following is a physical change?   (1)

(i) rusting of iron   (ii) combustion of Mg ribbon (iii) cutting of fruits   (iv) burning of a paper

Q3. Vinegar will turn_____ .   (1)

(i)   blue litmus into red
(ii) red litmus into blue
(iii) juice of china rose into green
(iv) phenolphthalein into pink

Q4. Range of clinical thermometer   (1)

(i) $36.6°$ to $46°$ C   (ii) $38°$ C to $52°$ C   (iii) $32°$ C to $42.6°$ C   (iv) $35°$ C to $42°$ C

Q5. An apple falling from tree is an example of : (1)

(i) Periodic motion   (ii) oscillatory motion   (iii) linear motion   (iv) circular motion

Q6. Network of branched tubes in insects for respiration : (1)

(i)Tracheae   (ii) lungs   (iii) gills   (iv) lenticels

Q7. Which of the following will get charged up by rubbing? (1)

(i)Plastic comb   (ii) iron scale   (iii) metal comb   (iv) steel pen

Q8. Amit brought a charged plastic comb near another similarly charged plastic comb (which was suspended).Then Amit's comb will: (1)

    (i) remain unaffected
    (ii) the suspended comb would move towards Amit's comb
    (iii) the suspended comb would move away from Amit's comb
    (iv) suspended comb will start oscillating

Q9. The layer of forest where bushes, shrubs and young trees are found is called:(1)

    (i)a canopy   (ii)understory (iii) emergent layer (iv)forest floor

Q10. The tree popularly known as the "Miracle Tree" (1)

    (i)   eucalyptus (ii)banyan (iii) neem (iv) amaltas

Q11. Assertion : Leguminous plants are nitrogen fixers.

    Reason : Leguminous plants have Rhizobium in their root nodules   (1)

(i) If both the assertion and the reason are true and the reason is a correct explanation of the assertion

(ii) If both the assertion and reason are true but the reason is not a correct explanation of the assertion

(iii) If the assertion is true but the reason is false

(iv) If both the assertion and reason are false

(v) If the assertion is false but reason is true

Q 12. Assertion : Human beings are not able to digest cellulose.

Reason : In human beings, small intestine is about 6-7 metres long. (1)

(i) If both the assertion and the reason are true and the reason is a correct explanation of the assertion

(ii) If both the assertion and reason are true but the reason is not a correct explanation of the assertion

(iii) If the assertion is true but the reason is false

(iv) If both the assertion and reason are false

(v) If the assertion is false but reason is true

Q 13. Name the acid present in the sting of red ants? (1)

Q 14. Give one example of a base which is soluble in water? (1)

Q 15. Name the mode of transfer of heat when a metal chair is kept outside in summer season? (1)

Q 16. Name the respiratory carrier in our body? (1)

Q 17. Name the device that is used to protect tall buildings from lightning strike? (1)

Q 18. Define the term "earthing". (1)

Q 19. In which part of the earth do we find trees with flat crown? (1)

Q 20. Complete the following food chain:
Grass-->_____----->snake----->_____ (1)

SECTION B

Q21. Mention any three modifications of the pitcher plant which help it to trap

insects?

(3)

Q22. Explain in brief the process of extracellular digestion? Mention any two organisms that show this type of digestion.   (2+1=3)

Q23. Name the secretions present in the small intestine along with their uses? (1X3=3)

Q24. Derive the chemical formula for: (1.5X2=3)

a) Aluminium nitrate

b) Iron oxide

Q25. List 3 three properties of salt.   (1X3=3)

Q26. Give reasons for the following: (1X3=3)

   a)Ice boxes are made as double –walled container.

   b)Cooking utensils are made-up of metals.

   c) Overhead electrical wires sag in summer season.

Q27. A car moves with the speed of 60 km/hour for 30 minutes and then with a speed of 80 kilometres/hour for next 30 minutes. Find the total distance covered by the car in 1 hour?

(3)

Q28. a) Why do we feel muscle cramps after heavy physical exercise?

b) How is anaerobic respiration in yeast put to commercial use?(2 points)   (2+1=3)

Q29. Draw a well labelled diagram for human respiratory system?

(any three labels)   (3)

OR

Name the two phases of breathing process. Mention the changes that occur in ribcage and diaphragm during these two phases. (3)

Q30. Explain any three consequences of deforestation. (3)

OR

Mention any three important uses of forest. (3)

SECTION C

Q31.Explain the process of nutrition in amoeba along with well labelled diagram?

(3+2=5)

OR

Q31.a)Name the four chambers of the stomach of ruminants.

b)Explain,how are grass eating animals able to digest cellulose? (2+3=5)

Q32.a)Identify the type of the following chemical reactions:

i) $2\ NaOH + H_2SO_4 \rightarrow Na_2SO_4 + 2\ H_2O$

ii) $Ba\ CO_3 \rightarrow Ba\ O + CO_2$

iii) $Fe + S \rightarrow Fe\ S$
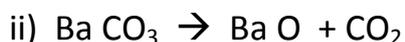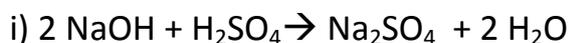
b)Balance the following chemical reactions:

i)$CO + O_2 \rightarrow CO_2$

ii)$NH_3 + HCl \rightarrow NH_4Cl$ (3+2=5)

Q33.Construct an activity to identify the three samples A,B and C given to you as acidic ,basic or neutral using extract of China rose. (5)

OR

Q33.a)Differentiate between acidic,basic and neutral salt.

b) Categorise the following salts as acidic, basic or neutral

Aluminium chloride, Sodium carbonate , Sodium sulphate, Sodium Chloride(3+2=5)

Q 34.a)With the help of a diagram explain the phenomenon of sea breeze.

b)Explain any two practical applications of convection currents in our daily life

(3+2=5)

OR

Q34.a)Design an activity to show the process of conduction in metals.

b)Explain any two practical applications of insulators in our daily life. (3+2=5)

Q35.Given below is the data about the distance travelled by a car and the time taken by it to cover that distance.

S.No.	Time(s)	Distance(m)
1.	5	4
2.	10	7
3.	15	12
4.	20	16
5.	25	20

a) plot the distance time graph

b) identify the type of motion depicted in the graph.

c) define the motion identified above. (3+1+1=5)

Q36.Write down various steps involved in charging a sphere positively, by the process of induction, along with diagram. (5)

Or

a) Name the scientist who suggested the idea of lightning conductor

b) List any two advantages of lightning

c) Mention any one precaution taken by a person during a lightning strike when he is:

i) caught outside in open

ii) present inside the house or a building

SAMPLE PAPER

TERM I

SOCIAL SCEINCE

Class VII

Time 3 Hrs   **Max**

Marks 80

General Instructions

There are total 28 questions in all. All questions are compulsory.

Marks for each questions are indicated against it.

Attach map inside the answer booklet.

Q1. Multiple Choice Questions
(1x10=10)

(i) Wildlife Protection Act was passed in -

    A) 1971   C) 1973
    B) 1972   D) 1974

ii) Soil that is ideal for growing cotton is -

    A) Red Soil   C) Alluvial Soil
    B) Laterite Soil   D) Black Soil

iii) A mass of moving ice is known as –

    A) Sea Cliff   C) Sand Dunes
    B) Glacier   D) Delta

iv) Removal of top layer of soil is known as -

    A) Soil Formation   C) Soil Erosion
    B) Weathering   D) Top Soil

v) Identify the largest glacier of the world

    A) Siachen   C) Greenland

    B) Gangotri   D) Antarctica

vi. Which Landform is formed by river at its early stage ?

    A) Meanders   C) Ox-bow lake
    B) Gorge   D) Delta

vii) Ain-i-Akbari was written by :

    A) Akbar   C) Abul Fazal
    B) Aryabhatta   D) Chand Bardai

viii) The period from 8th century to 18th century CE in India is known as :

    A) Pre-Historic Period   C) Ancient period
    B) Modern Period   D) Medieval Period

ix) The significant achievement of the medieval period was the popularity and availability of

    A) Autobiographies   C) literature
    B) Travel Account   D) Paper

x) Number of members that get retired after every two years in Rajya Sabha is :

    A) 3/4th C) 2/3rd
    B) 1/3rd D) 1/6th

    Q2. Define fossil fuels.   (1)
    Q3. Explain Normal Lapse Rate   (1)
    Q4. Give two examples of metamorphic rocks   (1)
    Q5. Name the warring parties of Battle of Tarain.   (1)
    Q6. Enlist any two examples of rock cut temples built during eight century in South India. (1)
    Q7. State the significance of Universal Adult Franchise   (1)
    Q8. Recall the main source of income of Chola rulers.   (1)
    Q9. Mention any one important objective for introducing reservation in India.   (1)
    Q10. Identify any two states having bicameral Legislature.   (1)
    Q11. Differentiate between P Wave and S Wave.   (1)

SECTION B

Q12. Define Lithosphere. Mention its importance.   (1+2)

Q13. Explain the structure of the Earth   (1+1+1)

Q14. Differentiate between Igneous and sedimentary rocks. (any three points)   (3)

Q15. 'Along with harming human health, air pollution can cause a variety of environmental effects'. Mention any two pollutants of air and state its ill effects in human beings.
(1+2)

Q16. Mention any three important features of the Rashtrakuta Empire.   (3)

Q17. Describe the social condition of North India during the Medieval period.   (3)

Q18. 'Religion played an important role in the life of the people of south India.' Justify the statement.   (3)

Q19. Enumerate the main reasons of Mohammad Ghori's success.   (3)

Q20. 'Razia Sultan was a competent ruler of the Delhi Sultanate'. Support the statement with three suitable reasons.   (3)

Q21 Study the picture given below and answer the following questions :   (1+2)

a. Identify the picture. (1)
b. Write its advantages. (any two) (2)

Q22. 'Delhi has been awarded a special status unlike other Union Territories'. Give any three reasons. (3)

Q23. Define atmosphere. Explain the significance of layers of atmosphere. (Two points each) (1+4)

Q24 . 'Ala-ud-din is famous for his far-sighted economic reforms.' Support the statement by giving suitable arguments. . (5)

OR

'Balban was a strong and capable ruler'. Support the statement by giving suitable arguments. (5)

Q25 . List the important steps taken by the Indian Government for the benefit of the weaker section of the society in the following spheres:

a. Employment (1)
b. Housing (2)
c. Education (2)

Q26 .. Enlist the powers and functions of Council of Ministers in India. (5)

OR

State the powers and functions of the Governor.

Q27. (i) Two features A and B are shown in the political outline map of India. Identify these features with the help of following information and write their names on the lines marked on the map : (4)
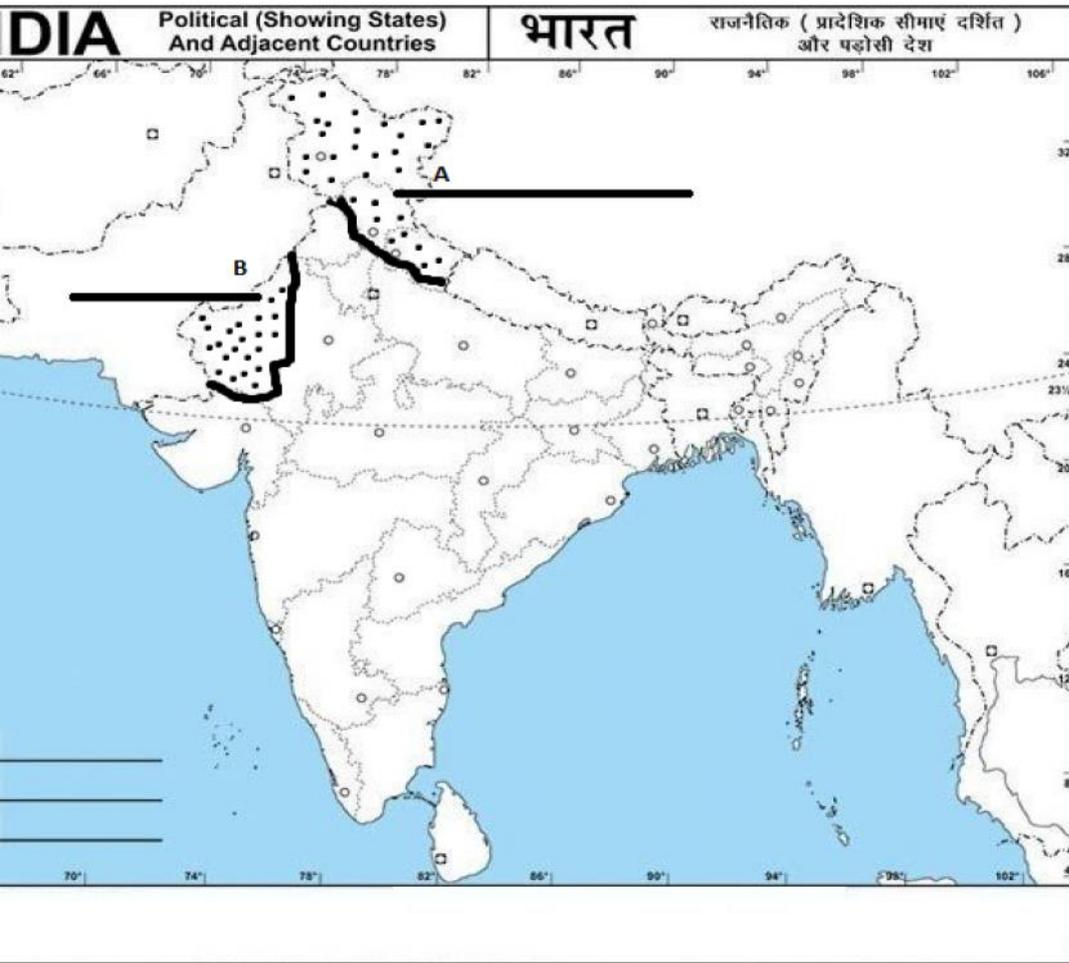
A. A type of soil (1)
B. A state with desert soil (1)

(ii) On the same map of India locate and label the following

C. Any one state with Red Soil (1)

D. Any one state with Alluvial soil   (1)

Q28. (i) Two features A and B are shown in the political outline map of India. Identify these features with the help of following information and write their names on the lines marked on the map : (3)

    A. Symbol of Power of Tripartite struggle.   (1)
    B. Centre of high education in South India   (1)
(ii)   On the same map of India locate and label the following

    C. Delhi   (1)

POLITICAL MAP OF INDIA

A

B
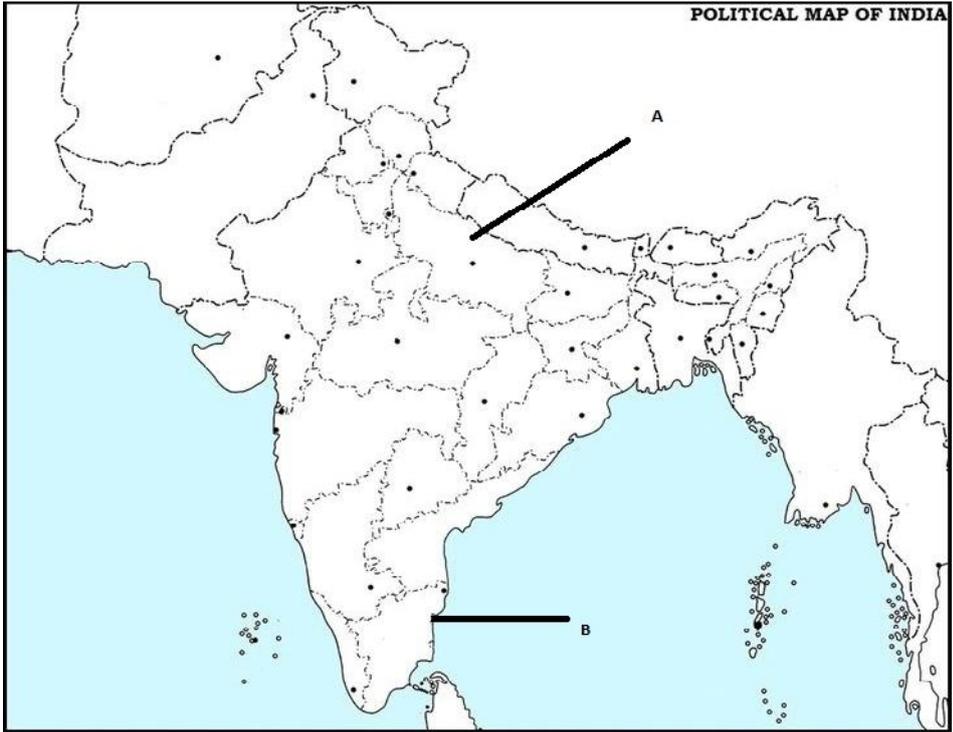
M.M:80 marks

SECTION –A (Reading) (20 marks)

Q1) Read the passage carefully and answer the questions that follow: **(12 marks)**

Looking at Gandhiji- through a diary

What did Gandhiji mean to those who were close to him, to those who lived with him?Mahadev Desai worked as his secretary from 1917 for 25 years. This was an important period in Indian history. Gandhiji was very active in the Independence movement. Desai kept a diary in which he recorded important happenings and conversations. The jokes for which Gandhiji was well known and even what he said when he was delirious during fasts, were written down by him. Gandhiji dictated his letters and articles and Desai kept copies of them. Desai jokingly describes Gandhiji as' a slave hunter' because he made him work so hard.

Gandhiji shared with him his innermost thoughts. When Gandhiji decided to go on the historic salt march, he kept the proposed route a secret but told Desai. One day after a meeting at the Gujrat club in Ahmedabad, Gandhiji and Desai walked all the way to the Sabarmati ashram, a distance of six kilometers. Desai has written about what they discussed during the walk.

This diary is an important source of information if you want to know about Gandhiji. It has been published as a book title 'Day-to-Day with Gandhi'. We understand the ideas of Gandhiji through the diary. We read about the people who came to meet Bapu and what he told them.

When Gandhiji was in Calcutta in 1917, he saw Tagore's play" The Post Office" and liked it. He said he was moved by Bengali music and wanted to listen to more often.

In 1942 Gandhiji and Mahadev Desai together were imprisoned in the Aghakhan Palace in Pune. One morning Desai suddenly got ill and died, on Gandhi's lap.

A1.1 On the basis of your reading of the above passages, complete the following   sentences as briefly as possible. Write the answers in your answer sheets. **(8)**

a) Any two different things Desai recorded in his diary were i)……. and ii)……….

b) Desai jokingly described Gandhiji as ' a slave hunter' because……………..

c) One example of Gandhiji sharing his innermost thoughts with Desai is………..

d) The distance between Gujarat Club in Ahmadabad to Sabarmati ashram is…………

e) Desai's Diary is very important because………………..

f) Gandhiji wanted to listen to more of Bengali music because…………………….

g) Desai's association with Gandhiji ended when…………………….

A1.2 Find the synonyms of the following words from the given passage:-   **(2)**

     a) in an excited state and not able think or speak clearly(para1)

     b) suggested/recommended (para2)

A1.3 Find the antonyms of the following words:-   **(2)**

     a) Calm (para1)
     b) Insignificant (para3)

A2) Read the following poem carefully.   **(8)**

An Exciting Trip

I ride the elevator up

In our apartment house

And no one knows I'm playing

For I'm quite as any mouse.

But I pretend I'm piloting

A rocket, swift as light,

That full of passenger I'll land

Upon the moon Tonight

When we ride down, my rocket ship

Falls like a shooting star,

And lands upon the earth again

Without the slightest jar.

The other people never know,

As up and down we flip,

That I am taking them upon

A wild, exciting Trip!

Frances Gorman Risser

A2.1 Given below is the summary of the poem. Complete it by writing the missing word against the correct blank number in your answer sheet. **(6)**

The speaker in the poem is a little boy who likes to (a)…………...in the elevator in his apartment house. While going up and down in the elevator, he pretends that he is the (b)……………. of a rocket which is full of (c) …………….. bound for the moon. After landing them on the moon, his rocket ship lands upon the(d)…………... without making even the slightest of the noise. The other (e)……………... in the elevator, whom the speaker imagines to be his passengers, are never known of the (f)……………… but the imaginary journey he takes them on, in his imaginary rocket ship.

A2.2 Find the antonyms of the following words from the given poem above:- **(2)**

     a) Boring _____
     b) Slow   _____

<u>SECTION- B</u> (Writing and Grammar) (30 marks)

B1) Draft a **notice** in not more than 50 words informing the students of classes V-VII about the 'Poster Making Competition' on the topic 'Banish Terrorism'. Also, give the necessary details. You are Rajni/ Rahul, the Head Girl/ Boy of the school. **(4)**

OR

Write an **email** to your Uncle in Bengaluru requesting him to pick you up from the airport and drop you to your exam center , as you are new to the place. Give essential details. **(4)**

B2) Frame an **Article** for your school magazine on any one of the following topics:

   a) Respecting Community Helpers (Sweepers, Postman, Car Cleaner, Guard)

OR

   b) A true friend is a real asset **(8)**

B3) It is very important to have a positive attitude in life and you wish to express yourself about it to your friend. Write a **letter** to him/her giving importance to courage and self- reliance in life.

(8)

B4) The following passage has not been edited. There is an error in each line. Write the incorrect word and the correction against the correct question number in your answer sheet. **(1/2X6=3)**

More of the fun and excitement in our life comes (a)

from the use for our senses. Senses open up a (b)

world which and full of sights, sounds, smells. (c)

tastes and things to touch. The sharp your senses and (d)

the more you use it, more enjoyable each (e)

of these world becomes for you. (f)

B5) Rearrange the following words to form meaningful sentences. **(1X3=3)**

1. time /did /much/ the/ you/ yesterday/ spend/ how/ in /library
2. song/ in/ beginning/ the/ a /lovely/ the /sang /of school/ we/ play
3. park / I/ go /the/ meet /friends/ to/ and/ my/ tomorrow/ will

B6) Given below are a set of instructions for making coffee. Complete the following paragraph reporting what you did. **(1X4=4)**

1. Take a teaspoon full of coffee powder in a cup or glass.
2. Add a little water.
3. Also add a little sugar.
4. Beat the mixture till the brown coffee powder becomes a creamy paste.
5. Boil milk.
6. Pour the boiling milk into the cup or glass with the creamy paste.
7. Stir with a teaspoon and sprinkle chocolate powder over it.
8. A steaming cup of coffee is ready.

A teaspoon full of coffee powder is taken in a cup or glass. A little water along with some sugar (1)_____. The mixture (2) _____ paste. Then the milk is boiled. The boiling milk is poured into a cup with the creamy paste. The mixture (3)_____and (4) _____. A steaming cup of coffee is ready.

D1) Read the following extract and choose the correct option: **(1X4=4)**

 "I am not sure exactly what went into the wedding cake."
(1)The author of the story from which the above extract has been taken is-
a.   R.K. Narayan
b.   Leo Tolstoy
c.   Ruskin Bond
d.   Srigun Srivastava
(2)Who does 'I' refer to in the above extract?
a.   Ruskin
b.   Aunt Ruby
c.   Rocky Fernandez
d.   Grand mother
(3)Which of the following ingredients went into the cake?
a.   egg and chocolate syrup
b.   cream and sugar
c.   nuts and butter
d.   egg shells and red chilli sauce
(4)After eating the wedding cake some of the guests -
a.   appreciated the cake very much
b.   were not seen for several days
c.   asked for the recipe of the cake
d.   fell ill

 D2) Read the following extract and choose the correct option: **(1X4=4)**

      "I might win one still…….It will depend on the subject of my category."

(1)Who is the speaker of the above lines?
a.   Amol
b.   Manjula
c.   Mrs. Parlekar
d.   Swaminathan
(2)What is it that the speaker might win?
a.   100 m race
b.   Essay writing competition
c.   Annual drawing competition
d.   On the spot painting competition
(3) The speaker got inspired by the story of
a.   Helen Keller
b.   Sudha Chandran
c.   Rich Belanger
d.   Stephan Hawking

(4)The author of the story from which the above extract has been taken is-
a.   Srigun Srivastava
b.   R.K. Narayan
c.   Ruskin Bond
d.   Mary Hawitt

D3) Read the following extract and choose the correct option: **(1X4=4)**

Where wretchedness will hang it's head,
And joy, like a pearl ,
Attend the needs of all mankind.
Of such I dream
Our world.

(1)Whose dream world is it?
a.   William Shakespeare
b.   Langston Hughes
c.   Mary Hawitt
d.   Ira Saxena
(2)wretchedness refers to
a.   Peace
b.   Love
c.   Misery and sufferings
d.   Greed
(3)Attends the need of all mankind means:
a.   Take care of the requirements
b.   Weakens our spiritual power
c.   Make our life uncomfortable
d.   Suffering will no longer exist
(4)Which literary device has been used in the first line?
a.   Personification
b.   Simile
c.   Metaphor
d.   Alliteration

D4) Answer the following questions in 30-40 words. (Do any 6)   **(2X6=12)**

    a) How was Tutu responsible for the interesting flavor in the wedding cake ?
    b) How did Swami catch the burglar?
    c) Why did Manjula tear her painting into pieces?
    d) What does the soldier do to show that he is not at all disheartened by the villagers? Comment.
    e) Birds first love is freedom. Comment.
    f) Manjula used to drift to another world. What was there in this another world of Manjula?
    g) What kind of a world does the poet dream of? [I dream a world]

D5) Imagine yourself to be Swami. You have attended a workshop recently on the topic 'Courage'. Write a letter to your friend telling him about the importance of courage in one's life.

<div align="center">

OR

</div>

"Manjula Parelkar knew she was no Hussain". Put yourself in Manjula's shoes and pen down your feelings after winning the "On- the spot Painting Competition".   **(6)**

Mathematics SAMPLE PAPER

Time 3 Hours   M.M. 80

General Instructions:
a. All the questions are compulsory.
b. The question paper consists of 40 questions divided into four sections A, B, C and D. Section A comprises of 20 questions of 1 mark each out of which first 10 questions are MCQ type, Section B comprises of 6 questions of 2 marks each, Section C comprises of 8 questions of 3 marks each and Section D comprises 6 questions of 4 marks each.
c. There is no overall choice. However, an internal choice has been provided in two questions of 2 marks, 3 questions of 3 marks and 3 questions of 4 marks.
d. Use of calculator is not permitted.

Section-A
Choose the correct options for the following questions (Q1 to Q10)

Q1. Find the value of 'x' , so that $2^{3x}=2^9$
   a) 2   b)3   c) 6   d) 9

Q2. Write 0.00023 in the form of $k\times10^n$
   a) 2.3×10^4 b)2.3×10^{-5} c) 2.3×10^5 d)2.3×10^{-4}

Q3. 20% of ₹2 is
   a) 20 paise   b) 40 paise   c) 4 paise   d) 2 paise

Q4. Sum of $\frac{-21}{3}$ and $\frac{18}{3}$ is
   a) $\frac{-39}{3}$ b) -1   c) -3   d)$\frac{-15}{3}$

Q5.If 25X15X4=1500, then the value of 2.5X0.4X1.5 is
   a) 0.1500   b)15.00   c)1.500   d)0.01500

Q6. Longest side of a right angled triangle is called
   a) Perpendicular   b) Hypotenuse   c) Median   d) Base

Q7.The decimal form of $\frac{-9}{8}$ is _____
   a) -9.8   b) 1.125   c) -1.125   d) -1.25

Q8. 0.34 can be written as
   a) 0.34%   b) 340%   c) 34%   d)3.4%

Q9.If C.P. =₹4500 , S.P. =₹ 5000 Then profit % =_____
   a) 9.65%   b) 96.5%   c) 0.965%   d) 90.6%

Q10. The area of a parallelogram whose base is 'a' cm and height is 'b' cm is
   a) a+b   b) a×b   c) $\frac{1}{2}$(a+b)   d)$\frac{1}{2}$(a×b)

Q11. Product of two terminating decimals is always a_____ decimal number.

Q12. Find the area of a right angled triangle whose base is 8 dm and height is 13 dm.

Q13. Insert a rational numbers between $\frac{-7}{8}$ and $\frac{1}{8}$.

Q14. Correct the following statement :

$\frac{-5}{3}$ subtracted from $\frac{5}{3}$ is equal to 0.

Q15. The point of concurrence of altitudes is called _____.

Q16. If $1dm^2 = x\ cm^2$, then find 'x'.

Q17. Is it possible to have a triangle with sides 5 cm, 6 cm and 11 cm . Justify your answer .

Q18. Subtract 6125/1000 from 8 .

Q19. If perimeter of square is 16cm , find its area.

Q20. Express 4.35 as a rational number in standard form .

Section B

Q21 . Solve the equation

$$4(x-3)=2(3x+1)$$

Or

Solve the equation

$$\frac{x}{5}+1=\frac{1}{15}$$

Q22. Simplify and express as negative exponent.

$$\left(\tfrac{1}{3}\right)^5 \div \left(\tfrac{1}{3}\right)^3$$

Q23. In the given figure, $\angle PQM = 70^0$ and $\angle PRQ = 25^0$, Find $\angle QPR$.
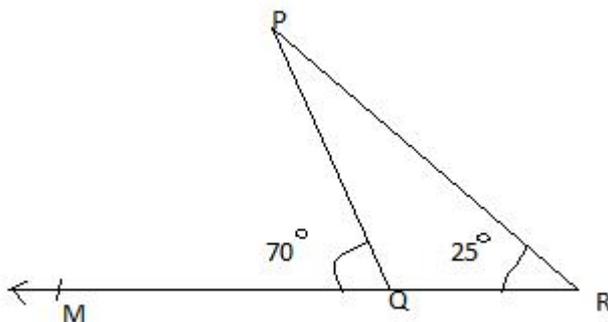
Q24. If $x = \frac{-5}{3}$ and $y = \frac{3}{2}$, Verify $x \times y = y \times x$

Or

Simplify : $\left|\frac{5}{7} - \frac{2}{3}\right| + \left|\frac{-5}{21}\right|$

Q25. The diagonals of a rhombus are 80 m and 0.6 cm . Find its area .

Q26. A ribbon of certain length has been divided into 6 equal strips. If the length of each strip is $3\frac{2}{3}$m, what was the original length of the ribbon?

Section-C

Q27. Solve and express the result in decimal form

$\frac{1}{11}$ x 0.121 + $\frac{3}{4}$ - $\frac{7}{20}$

Or

Without actual division, check whether $(\frac{1}{5}+\frac{1}{6}+\frac{1}{8})$ has terminating or non terminating decimal representation .

Q28. In ▢PQR , PQ=PR,∠PQR =50⁰ , find ∠QPR, y and z.

Q29. By what number should $(-512)^{-1}$ be divided so that the quotient may be equal to $(6)^{-2}$?

Q30.Solve for

$(\frac{4}{7})^2$ x $(\frac{4}{7})^3 = \left[(\frac{4}{7})^3\right]$ ^{3}

Or

Simplify

{ $(\frac{3}{17})^{11} \times (\frac{3}{17})^7\} \div \{(\frac{3}{17})^8 \times (\frac{3}{17})^{10}\}$and express the result as a power of 10.

Q31. Solve and express the result as a rational number in the lowest form:

$\frac{0.2\ 0.05 0.8}{0.011 00 0.1}+\frac{1}{2}$

Q32.The length of base and height of a triangle are in the ratio 4:5.If the area of the triangle is 160^2find the length of its base and height.

Q33. Jiya walks 6km towards East from point A and then she walks 8km towards North.How far is she from point A?

Or

A tree is broken at a height of 5m from the ground and its top touches the ground at a distance of 12m from the base of the tree.Find the original height of the tree.

Q34.By selling an article for Rs.475,Rahul lost 5%.What is the cost price of an article?
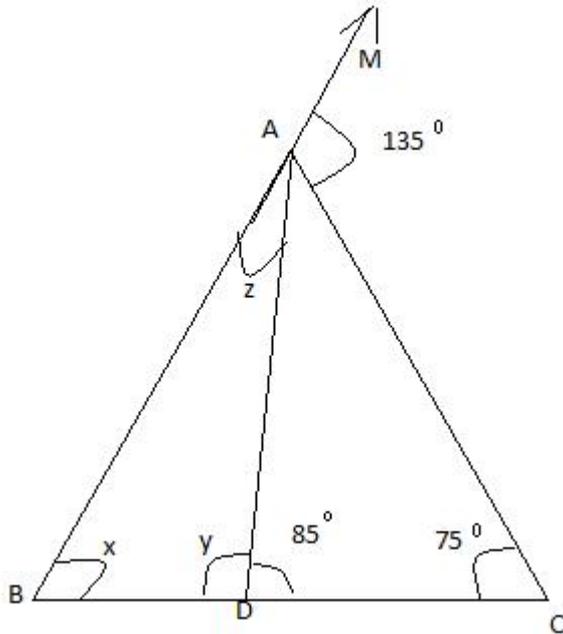
Section D

Q35. Solve and check:

$-\frac{2}{3}$ + $\frac{}{2}$= 5

Or

Solve and check:

$$\frac{6+2}{3}+1 = \frac{3-3}{2}$$

Q36. In the figure $\angle MAC = 135^0$, $\angle ACB = 75^0$ and $\angle ADC = 85^0$, Find x, y, z

Q37. If $x=\frac{2}{5}$, $y=\frac{-3}{10}$ and $z=\frac{4}{15}$, prove that $x \div (y+z) \neq x \div y + x \div z$

Q38. Simplify :

$$\frac{\left(\frac{-3}{2}\right)^{-1} \times \left(\frac{2}{3}\right)^{2}}{\left(\frac{2}{3}\right)^{-1} \div \frac{3}{2}}$$

Q39. Rishi deposited ₹20,000 in a financial institution 0n 28th March, 2000 and closed his account on 21st August 2000. If the institution pays an interest of 9% per annum. What amount does Rishi get?

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

Find the Value of 'x'

48% of 480 +25% of 250 -x=200

Q40. A path 3.5m wide runs inside along the boundary of a square field whose side is 65m. Find the cost of levelling the rest of the field at the rate of ₹25m^2.

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

A rectangular park 750m long and 450m broad has two crossroads 5m wide in the middle of it . Find the area of crossroads and the cost of laying tiles on crossroads at the rate of 150 per m^2.