# Doon Public School, Etah

**Where Excellence is a Habit!**
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# Entrance Exam
## CLASS : 8th
## Session 2021-22

# SYLLABUS AND SAMPLE PAPERS BOOKLET

## Admission sought in Class: 8th
## (For Class 7th  Passed students)

| Maths | 25 Marks | Time allotted 01 Hour 45 Min. |
|---|---|---|
| Science | 25 Marks | |
| English | 25 Marks | |

## Syllabus of Class 7ᵗʰ : Mathematics

| S.N. | Chapter/Topic |
|---|---|
| 1 | Integers |
| 2 | Perimeter & Area |
| 3 | Fractions |
| 4 | Decimals |
| 5 | Triangle |
| 6 | Rational Number |
| 7 | Exponents & Power |
| 8 | Lines and Angles |

## Syllabus of Class 7ᵗʰ :Science

| S.N. | Chapter/Topic |
|---|---|
| 1 | Nutrition in plants |
| 2 | Nutrition in Animals |
| 3 | Fibers |
| 4 | Heat and temperature |
| 5 | Acid Bases and Salts |
| 6 | Wind storm and cyclones |
| 7 | Soil |
| 8 | Respiration in Animals |
| 9 | Transportation in animals and plants |
| 10 | Motion and Time |
| 11 | Electric current and its effect |
| 12 | Light |
| 13 | Heat and temperature |

## Syllabus of Class 7ᵗʰ :English (Grammar)

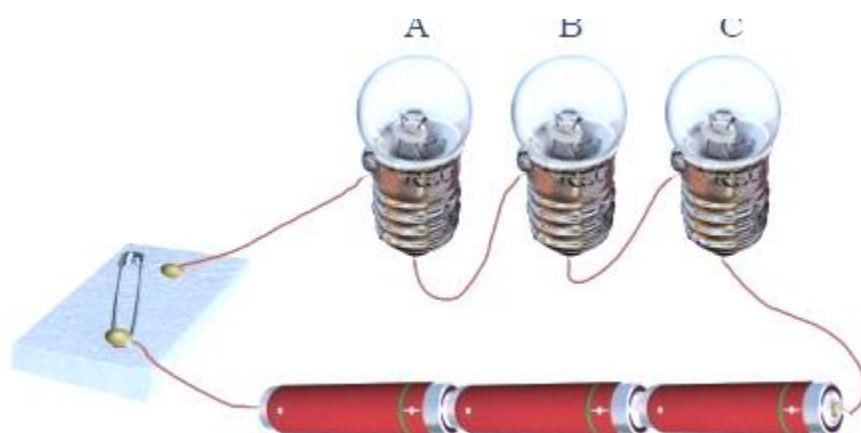| S.N. | Chapter/Topic |
|---|---|
| 1 | Sentence |
| 2 | Noun |
| 3 | Verb |
| 4 | Model Auxiliaries |
| 5 | Adverb |
| 6 | Adjective |
| 7 | Pronoun |
| 8 | Tenses |
| 9 | Active and Passive voice |
| 10 | Direct and Indirect |

### SECTION-A

I.    **TICK THE CORRECT OPTION (4)**

**Q1.Open drain system is a breeding place for which of the following.**
(a) Flies
(b) Mosquitoes
(c) Organisms which cause diseases
(d) All of these

**Q2.** In the given diagram, the switch is moved to **ON** position



(a) Bulb A will glow first
(b) Bulb B will glow first
(c) Bulb C will be glow first
(d) All the bulb will glow together

**Q3.Which of the following statements is correct?**
(a) Indicator is a substance that shows different colors in acidic and basic solution.
(b) Turmeric stain on a white shut turns to red when it is washed with soap.
(c) Lime water is a solution of calcium hydroxide.
(d) All the above are correct.

**Q4.Which of the following is not a source of waste water?**
(a) Sewers
(b) Homes
(c) Industries
(d) Hospitals

**Q5.John and Tom were given one mirror each by their teacher. Tom found his image to be erect and of the same size whereas John found her image erect and smaller in size. This means that the mirrors of John and tom are, respectively**
(a) plane mirror and concave mirror.
(b) concave mirror and convex mirror.
(c) plane mirror and convex mirror.
(d) convex mirror and plane mirror

**Q6The central calm area of a cyclone is called**
(a) Core    (b) Eye    (c) Midpoint    (d) None of these

**Q7. A fire alarm usually detects smoke in case of fire. Where should such an alarm be placed in a room?**
(a)) Near the door
(b) On the floor
(c) On the ceiling
(d) On the wall

**Q8.A marble tile would feel cold as compared to a wooden tile on a winter morning, because the marble tile**
(a) is a better conductor of heat than the wooden tile.
(b) is polished while wooden tile is not polished.
(c) reflects more heat than wooden tile.
(d) is a poor conductor of heat than the wooden tile

## II. FILL IN THE BLANKS- (5)

1) Production of new individuals from the vegetative part of parent is called _____.
2) The rhythmic expansion and contraction of the heart is called _____.
3) Kidneys eliminate the waste materials in the liquid form called _____
4) _____ is not required for anaerobic respiration.
5) Respiration through the skin is called _____.
6) _____ soil is deposited by fast-flowing rivers.
7) A _____ eclipse occurs when earth comes between sun and moon in a straight line.
8) _____ are the extremely thin blood vessels which connect arteries to veins.
9) A violent tornado can travel at speeds of about_____Km/Hr.
10) The main cause of wind movement is uneven _____ on the earth.

## III. MATCH THE ITEMS GIVEN IN COLUMN I WITH ONE OR MORE ITEMS OF COLUMN II.    (3)

| Column I | Column II |
|---|---|
| (a) A plane mirror | (i) Used as a magnifying glass. |
| (b) A convex mirror | (ii) Can form image of objects spread over a large area. |
| (c) A convex lens | (iii) Used by dentists to see enlarged image of teeth. |
| (d) A concave mirror | (iv) The image is always inverted and magnified. |
| (e) A concave lens | (v) The image is erect and of the same size as the object. |
| - | (vi) The image is erect and smaller in size than the object. |

### OR

**MATCH STRUCTURES GIVEN IN COLUMN I WITH FUNCTIONS GIVEN IN COLUMN II.**

| Column I | Column II |
|---|---|
| (i) Stomata | (a) Absorption of water |
| (ii) Xylem | (b) Transpiration |
| (iii) Root hairs | (c) Transport of food |
| (iv) Phloem | (d) Transport of water |
| - | (e) Synthesis of carbohydrates |

## IV. TRUE OR FALSE- (2)

(i) Nitric acid turn red litmus blue.
(ii) Sodium hydroxide turns blue litmus red.
(iii) Cutting a log of wood into pieces is a chemical change.
(iv) Condensation of steam is not a chemical change

## SECTION-B

## V. VERY SHORT ANSWER TYPE QUESTIONS – (4)

**Solves the word problems –**

a) Convert 54 km/hr. into m/s

b) Calculate Time-period of a simple pendulum if it takes 72 seconds to complete 24 oscillations.

c) A train is travelling at a speed of 100 km/hr. How long will it take to complete a journey of 500 km without stopping in between.

d) Ramesh takes 15 minutes to reach market from his house on this cycle. If the speed of his cycle is 4 m/s calculate the distance between his house and market?

**VI.ANSWER THESE QUESTIONS- (3)**

Q1. Show the shape of the distance-time graph for the motion in the following cases:
(i) A car moving with a constant speed.
(ii) A car parked on a side road.

Q5. How is sandy soil different from clayey soil?

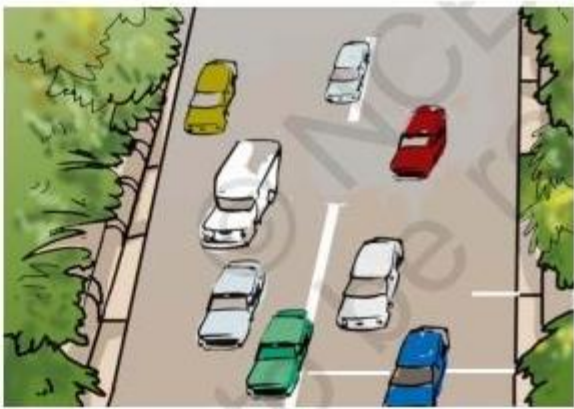## SECTION-C

**VII. LONG ANSWER TYPE QUESTION- (4)**

Q1.Suppose the two photographs, shown in Fig. **A** and Fig.**B** had been taken at an interval of 10 seconds. If a distance of 100 meters is shown by 1 cm in these photographs, calculate the speed of the blue car.



**(A)**          **(B)**

**OR**

**Q1. State two differences between a convex and a concave lens.**
.

**\*\*\*\*\*\*\*\*\*\*\***

1. State which is greater :

   [ 7 + ( − 9 ) ] × 11 _____ 7 + ( − 9 )× 11

2. The Circumference of a circle of diameter d is _____

   (a) $\pi$d

   (b) $2\pi$d

   (c) $\frac{1}{2}\pi$d

   (d) $\pi d^2$
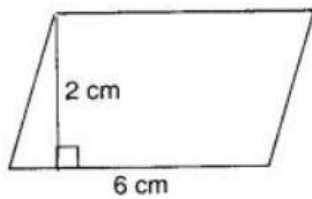
3. Find the area of parallelogram: _____

   (a) 12 cm$^2$

   (b) 6 cm$^2$

   (c) 24 cm$^2$

   (d) 8 cm$^2$
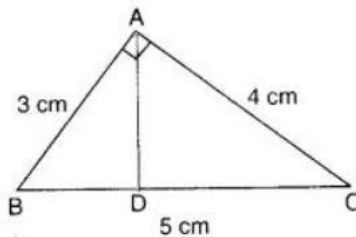
4. Find AD in the following figure : _____

   (a) 3 cm

   (b) 4.2 cm

   (c) 5 cm

   (d) 2.4 cm

5. 1 cm$^2$ = _____ mm$^2$

6. Which of the following is not the value of $\pi$ ? _____

   (a) $\frac{22}{7}$

   (b) $\frac{7}{22}$

   (c) $\frac{355}{113}$

   (d) 3.14

7. How many vertices does a triangle have? _____

   (a) 1

   (b) 2

   (c) 3

   (d) 4

8. Which of the following statements is true? _____

   (a) A triangle can have two right angles

   (b) A triangle can have two obtuse angles

   (c) A triangle can have two acute angles

   (d) A triangle can have all the three angles less than 60°


9. The denominator of the rational number 0 is _____

   (a) 0

   (b) 1

   (c) 2

   (d) 3


10. The exponential form of 81 is _____

   (a) $3^4$

   (b) $3^3$

   (c) $3^2$

   (d) none of these


11. $(-1)^{even\ number}$ = _____

   (a) -1

   (b) 1

   (c) 0

   (d) none of these


12. $3^0 \times 4^0 \times 5^0$ = _____

   (a) 1

   (b) 3

   (c) 4

   (d) 5


13. The ratio of the radii of two circles is 2 : 5. What is the ratio of their circumference ?

14. What fraction of a day is 8 hours ?

15. If 1kg of pure milk contains 0.245 kg of paneer. How much paneer is there in 14.4 kg of milk ?

16. If two acute angles of a right triangle are equal, then find the measure of each acute angle.

17. The product of two rational numbers is $\frac{-28}{81}$. If one of the numbers is $\frac{14}{27}$, find the other.

18. Two angles are supplementary and one of them is 127°. What is the size of the other angle?

19. **State True & False :  [5 Marks]**


   1. Sum of two complementary angles is 180°. _____

2. Sum of two supplementary angles is 180°. _____

3. Sum of interior angles on the same side of a transversal with two parallel lines is

   90°._____

4. Vertically opposite angles are equal. _____

5. Two supplementary angles are always obtuse angles. _____

20. The angles between North and West and South and East are
    (a) complementary                 (b) supplementary
    (c) both are acute                 (d) both are obtuse

21. Two circles are congruent, if they have the same _____

＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊

| Model paper of English | MM: 25 |
|---|---|

A. **Change the following sentences as directed.** (2)

   1. **You should meet him. (Negative)**
   2. **She could not attend the meeting. (Affirmative)**

B. **Fill in the blanks with correct collective noun.** (2)

   1.    A………… of students.
   2.    A…………. of islands.
   3.    A………….. of stars.
   4.    A…………….. of lions.

C. **Find out the mistakes and write the correct sentence in the given space.** (4)

   1. Goa is the smaller state in India. _____
   2. This place is hottest than Chennai. _____
   3. Ravi is the best of the two. _____
   4. Mohan is more intelligent boy. _____

D. **Fill in the blanks with appropriate pronoun.** (2)
   **( She, her, you, myself**.)
   1. ……………… should go to Mumbai.
   2. I……………. will solve this problem.
   3. It is………….. who has done it.
   4. I give……….. a present.

E. **Give the correct form of verb in each of the following sentences**. (2)

   1. When did you received your pay ?
   2. She thinks that her son would never came back.

F. **Fill in the blanks .** (2)
   1. He _____ speak French. (could/can)
   2. He told me that he _____ leave the city. (might/may)

G. **Choose the correct option :** (4)

   1. **Present Tense is used to express**
      (i) recent completed action
      (ii) action happening now
      (iii) habitual action
      (iv) both (i) and (ii).

   2. **I will be seeing him tomorrow**
      (i) Future Indefinite
      (ii) Present Continuous

(iii) Future Continuous
(iv) Both (i) and (ii)

3. **For the future planned action, we use :**
   (i) I will be going
   (ii) I can go
   (iii) I should go
   (iv) I must go

4. **Wait (Past Perfect Continuous)**
   (i) They were waiting
   (ii) They had been waiting for us
   (iii) They have been waiting for us
   (iv) Both (i) and (ii)

H. **Tick the correct adverb from those given brackets.    (2)**

   1. It is a (too / very) hot day.
   2. He is (too / very) young to go to school.
   3. He always comes (late / lately).
   4. The old man spoke (angrily / anger).

I. **Change the following sentences into indirect speech.        (2)**
   1. **Seeta said to me, "Are you going to the fair ?"**
   2. **I said to him, "Please give me this box."**

J. **Change the voice of the following sentences into passive.      (3)**

   1. Someone has stolen my bag.
   2. When do you sell your car ?
   3. We are not laughing at poor boy.

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