

Powered by:



Student's Reference Sample Paper & Syllabus



Syllabus

- ✓ Syllabus is based on integrated T.S. & A.P. State Boards
- ✓ Competence and knowledge in Mathematics & Science is assessed yearly at the State Level Olympiad.
- ✓ 75% of total syllabus (syllabus covered till 30th November as per Government schedule) from the respective state board is considered for this olympiad.

Exam pattern

Class	No. of Questions	Total Marks	Duration (min.)
Class - 8	100	100	90

For Class 8

Mathematics	: 50
Physics	: 15
Chemistry	: 15
Biology	: 20

Mathematics

1. Compare $-1/5$ and $-7/5$ []
(A) $-1/5 > -7/5$ (B) $-1/5 < -7/5$
(C) $-1/5 = -7/5$ (D) $-7/5 > -1/5$
-
2. Two complementary angles differ by 16° . Find the angles. []
(A) $50^\circ, 40^\circ$ (B) $52^\circ, 38^\circ$
(C) $53^\circ, 37^\circ$ (D) $54^\circ, 36^\circ$
-
3. If $x = \left(\frac{2}{3}\right)^2 \times \left(\frac{3}{2}\right)^{-2}$ find the value of x^{-2} []
(A) $\frac{2}{3}$ (B) $\left(\frac{3}{2}\right)^8$ (C) $\left(\frac{2}{3}\right)^2$ (D) $\left(\frac{3}{2}\right)^{-2}$
-
4. By what number should 2^{-1} be multiplied so that the product may be equal to $(-5)^{-1}$? []
(A) $1/5$ (B) $-1/5$ (C) $2/5$ (D) $-2/5$
-
5. Find the value of $\sqrt{\frac{0.64}{0.16}}$. []
(A) 0.2 (B) 2 (C) $\frac{1}{2}$ (D) $\sqrt{2}$
-
6. What is the smallest number by which 2560 is to be multiplied so that the product is a perfect cube? []
(A) 45 (B) 35 (C) 52 (D) 25
7. For what value of x , the mode of the following data is 27? []
 $25, 25, 27, 23, 27, 26, 24, x, 27, 26, 25, 26$
(A) 24 (B) 25
(C) 26 (D) 27
-
8. The marked price of an article is ` x , and selling price is ` y . What is the discount percentage? []
(A) $\frac{(x-y)100}{x}\%$ (B) $\frac{(y-x)100}{x}\%$
(C) $\left(\frac{y-x}{y}\right)100\%$ (D) $\frac{x-y}{100}\%$
-
9. A cycle is marked at ` 4,000 and sold for ` 3,918. What is the discount? []
(A) 85 (B) 83 (C) 90 (D) 82
-
10. If $\sqrt{\frac{25}{36}} = \frac{x}{12}$, find the value of 'x'. []
(A) 6 (B) 5 (C) 10 (D) 12

Key for 8th Mathematics

1	2	3	4	5	6	7	8	9	10
A	C	B	D	B	D	D	D	B	C

1. 1 newton = _____ dynes []

- (A) 10^6 (B) 10^4
(C) 10^5 (D) 10^2

2. Which type of friction acts when the object is at rest? []

- (A) static friction (B) sliding friction
(C) rolling friction (D) fluid friction

3. What is the net force acting on the given free body diagram? []



- (A) 30 N (B) 6 N
(C) 2 N (D) 12 N

4. When a book is lying on the table netforce acting on the book is []

- (A) more in downward direction by the weight of the book
(B) less in downward direction by the weight of the book
(C) zero
(D) more in upward direction by the table

5. The body will move only when []

- (A) force of friction = applied force
(B) force of friction < applied force
(C) force of friction > applied force
(D) all the above

6. This is present in the head of match sticks []

- (A) Phosphorous (B) Potassium
(C) Platinum (D) Palladium

7. Complete the following equation. []

Copper sulphate + Iron

→ Iron sulphate + _____

- (A) Iron
(B) Sulphur
(C) Copper
(D) Reaction does not occur

8.  This resin identification code

represents []

- (A) PP (B) PET
(C) PS (D) PVC

9. Which of the following is a natural fibre? []

- i. Cotton ii. Wool
iii. Nylon iv. Silk

- (A) iv only (B) i, ii only
(C) i, iii (D) i, ii, iv

10. Muscular ligaments in larynx are called []

- (A) umbilical cord (B) pharynx
(C) vocal cord (D) Adam's apple

Key for 8th Physical Science

1	2	3	4	5	6	7	8	9	10
C	A	B	C	B	A	C	A	D	C

1. **An astrophysicist photographs distant galaxies is an example of** []
(A) Observational science
(B) Experimental science
(C) Natural phenomena
(D) Chemical science
-
2. **The jelly like substance between the nucleus and the cell membrane is called** []
(A) Cell viscous fluid
(B) Cell fluid
(C) Cytoplasm
(D) Protoplasm
-
3. **IUCN stands for** []
(A) International Unity for Conservation of Nature
(B) Indian Union for Conservation of Nature
(C) International Union for Conservation of Nature
(D) Indian Union for Collapse of Nature
-
4. **Curd or buttermilk contains bacterium** []
(A) Lactobacillus
(B) Bacillus
(C) Coccus
(D) Staphylococcus
-
5. **_____produced in sugar industry is used in the preparation of ethyl alcohol** []
(A) Pulp (B) Sugar
(C) Molasses (D) Sugar juice
-
6. **Leeuwenhoek built a single lens powerful microscope, which could magnify the object _____ times** []
(A) 300 (B) 400
(C) 500 (D) 600
-
7. **_____ is essential for the continuation of the species.** []
(A) Respiration (B) Reproduction
(C) Excretion (D) Digestion
-
8. **A partial growth of our voice box or larynx is** []
(A) Adam's apple (B) Cartilage
(C) Throat (D) Thyroid gland
-
9. **Child marriage is _____ evil** []
(A) Science (B) Social
(C) Maths (D) Not
-
10. **Function of adrenalin is** []
(A) Control Jealousy
(B) Control menopause
(C) Control emotions
(D) Control many diseases
-

Key for 8th Biology

1	2	3	4	5	6	7	8	9	10
A	C	C	A	C	A	B	A	B	C