

# NEW QUESTIONS FOR TEACHERS

There Are a Great Many Brain Puzzlers In the List.

MADE UP BY STATE COMMISSIONER

Examination Tests for Teachers in Elementary Schools—By Their Answers to These Questions Those Who Desire to Teach Show Whether They Are Grounded in the Fundamentals of Education.

Following is the list of questions as prepared under direction of the state commissioner of public schools, and submitted at the county examination of teachers April 6 for elementary school certificates:

## THEORY AND PRACTICE.

- The first five questions refer to Rational Living by Henry C. King.
1. What is meant by the "voluntaristic trend" of modern psychology?
  2. "Axioms are not axioms until they have been done by our muscles." How do you incorporate this principle into the teaching of geometry and physics classes?
  3. Why is Matthew Arnold justified in saying that "Conduct is three-fourths of life"?
  4. Why, when an improper thought comes into your mind, is it not sufficient for your power of self-control to assure yourself that you will not heed it? On the contrary, what should you do?
  5. What lesson is taught by the illustration of the traveler watching other art pilgrims looking at Raphael's "St. George"?
  6. What is meant by reflex action? How does this principle apply to education?
  7. What authorities stand behind the teacher in the enforcement of school rules and discipline?
  8. Name some of the ways in which your personality will affect your school.
  9. Is a teacher's general knowledge of a subject sufficient, or should she prepare separately for the individual recitation? Why?
  10. Of what use to the child is play?

## GRAMMAR.

- Describing the storm, he told us that the wind sprang up sleek, night-fall, roared, with a fury he trembled to behold, round the black hilltop whose fir trees bent almost double, and, hissing through every crevice of the shaken cottage, escaped, an angry demon, to spend its rage upon the plain below.
- The first six questions refer to the selection given above.
1. What kind of a sentence is the above? What is its principal clause? Classify all of its subordinate clauses and tell what word each modifies.
  2. Give the syntax of two infinitives. Write all the remaining infinitive forms of each.
  3. What classes of adverbs are found? Point out the adverbs under each class.
  4. Diagram or analyze that part of the sentence which precedes the word "whose."
  5. Find all the different uses of the participle in the selection.
  6. Parse: us, that, double, demon.
  7. Give a complete classification of adjectives with examples of each class.
  8. Write sentences containing: (a) an adverbial clause of time, (b) a compound participle, (c) a clause subject and predicate, (d) a prepositional phrase used independently.

## ARITHMETIC.

1. A speculator bought 50 shares of stock at \$80, and sold them at \$88. How much did he gain, brokerage in each case being 1/2%?
2. If a horse tied to a stake by a rope 712 rods in length can graze upon just one acre of ground, how long should the rope be to enable him to graze upon 6 1/2 acres?
3. I bought land at \$20 an acre. How much, per acre, must I ask for it, that I may fall 25% from my asking price, and still make 20% on the purchase money?
4. What is the fractional difference between 1/800 of a hhd. and 3/5 of a pint?
5. On a bill of goods amounting to \$500, what is the difference between a discount of 20% and three successive discounts of 15%, 10%, and 5%?
6. In a class examination 15 questions were submitted to each of the 5 members; A answered 120, B 125, C 96, D 110, and E 160. What was the standing of the class?
7. Divide \$1596 into parts proportional to 2/3, 3/4, 4/5.
8. A note of \$1000, dated April 4, 1905, was indorsed as follows: June 1, 1905, \$30; May 5, 1906, \$350. How much is due today, interest at 6%?
9. Do you believe it better for pupils to use an arithmetic with answers or without? Why?
10. Give the units of length, surface and capacity of the metric system.

## ORTHOGRAPHY.

1. Define antonym, uilma, lingual, diphthong, aspirate.
2. Write five derivative words, pointing out and defining the prefixes and suffixes.
3. Give the rule of spelling governing each of the following: moneys, stopping, benefited, genii.
4. Write words illustrating two sounds each for g, n, and th.
5. These words are to be pronounced by the examiner: deviate, interment, concession, ex-samer, wessel, dolorable, illegible, onyx, paramount, dolorous, affidavit, nasturtium, grievance, niche, truisem, bisector, euphony, boredom, millinery, peevish.

## WRITING.

For this branch examiners will grade the manuscript.

ript in orthography.

## PHYSIOLOGY.

1. State the difference between the veins and arteries as to (a) walls, (b) valves, (c) course of the blood.
2. Name and describe the outer and inner layers of the skin.
3. Name the different kinds of teeth in the permanent set.
4. Give the location of the atlas, femur and sternum, and state their functions in the skeleton.
5. Describe the ribs as to number, attachment and use.
6. What purpose do starchy foods serve in the body? Name five articles of food that contain starch in abundance.
7. Draw a line to represent the curve of the spinal column.
8. How is the brain protected?
9. When should cold water baths not be taken? What is the effect of hot water baths on the circulation?
10. Is alcohol to be recommended as a fat producer? Why, or why not?

## UNITED STATES HISTORY AND CIVIL GOVERNMENT.

1. Give a brief account of an unsuccessful attempt by the English to found a colony in North America.
2. What was the New England Confederation? How long did it exist?
3. Give the purpose and result of Braddock's expedition of 1755. What part did a future president take in the expedition?
4. Who were the leading British and Colonial generals at the beginning of the Revolution? At the close of the Revolution?
5. When and how were Washington and Oregon settled?
6. Give a short account of one of the following: The State of Franklin; Shay's Rebellion; the building of the National road.
7. Explain the formation of the state of West Virginia.
8. What purpose with regard to slavery did Lincoln express at the beginning of the Civil War? How and why did he change this purpose?
9. Explain the method of electing the president of the United States.
10. Explain the relations which have existed between the United States and Hawaii since 1893.

## READING.

Examiners will conduct an oral examination in reading.

## LITERATURE.

1. Why did American literature of the Colonial Period contain no writings of a light or humorous nature? Who was the first American humorist?
2. What effect did the Norman Conquest have upon the language of England?
3. Name three of Longfellow's long poems; three of his short poems; two of his prose writings; two of his translations.
4. Discuss each of the following with regard to his relation to politics: Edmund Burke; James R. Lowell.
5. What is meant by "realism" in fiction?
6. Name one American work, together with the name of its author and the department of literature to which it belongs, relating to each of the following: The Dutch in the New World; the superstitions of early New England; the American Indian; early days in California; the negro.
7. What was the nature of the experiment in which Hawthorne participated at Brook Farm? Which one of his books reveals his views with regard to this experiment?
8. What is your favorite novel? How has it helped you?
9. What is an epic poem? What great epic did John Milton write?
10. State one fact of literary interest about three of the following: Goethe, Plato, Chaucer, Thoreau, R. L. Stevenson.

## GEOGRAPHY.

1. What is the earth's relation to the sun? To the other planets?
2. In beginning geography how would you give the children first ideas of distance and direction?
3. Why do the largest rivers of Ohio run in a southerly direction?
4. Name the most southern point of land of South America, Asia and Africa; the most northern point of land of Europe and Australia.
5. Write of the terminuses and ownership of the following railroads: Trans-Siberian, Canadian Pacific.
6. What are the essential features of a good harbor? Name three United States seaports that have good harbors.
7. What and where are three of the following: Westminster Abbey, The Hall of Fame, Mammoth Cave, Simpson Tunnel?
8. By whom was the project of a canal across Panama originally undertaken?
9. Name an island in Lake Erie; in the Irish Sea; in the English Channel; in the Black Sea; in the Gulf of St. Lawrence.
10. What are the political divisions of Central America?

## Which?

Once upon a time two young women came to a wise theatrical manager and applied for positions as stars.

"It is not our custom to engage stars who have had no dramatic experience," he said. "And neither of you has been on the stage?"

"No, sir," they replied.

"Then what qualifications do you possess?"

"I, sir," said the first young woman, "have ambition and a future."

"I, sir," said the second young woman, "have ambition and a past which would make copy."

And so the manager made out a contract for one of them.—Judge.

## Terrible Revenge.

Mme. Labarrie—I saw Mme. Paul having a great altercation with your cook this afternoon.

Mme. Vincent—Yes; I am not altogether surprised. Just fancy, she had the nerve to copy my last new hat!

Mme. Labarrie—Well, what did you do?

Mme. Vincent—I gave mine to the cook.—Fele Mele.



As soon as cream is received at our creamery a sample is taken of it for testing and as soon as weighed the bulk of the cream poured into the cream vat, writes William Sarsenou of Nebraska in American Agriculturist. The temperature of the room is between 75 and 85 degrees, which, together with a starter, will nearly ripen the cream in six or seven hours. I then allow it to be cooled to 55 to 60 degrees by evening, and then it ripens fully during the night. One hour's cooling in the morning will usually bring it to churning temperature.

For cooling we use ice directly in the cream. We crush it fine and keep the cream stirred until the ice is all melted. Cream is stirred every half hour for the first three or four hours. In the evening before leaving for the night I take the temperatures of the cream and room and the acidity of the cream and if necessary raise or lower the temperature so as to have it right for the next morning.

It is hard to tell with printer's ink when cream is just right to churn. It should have a clean, pleasant acid taste and smell and be of smooth consistency like strap, so that it will run from the stirring kettle with a glossy surface. Just before churning we raise the churn with hot and cold water and finally seal with boiling lime water and then pour in pure boiling water. The cream is strained before it is put in the churn and the coloring matter calculated, according to the butter expected.

## Working the Butter.

When the granules of butter are about the size of wheat grains we draw off the buttermilk and replace with the same amount of water at 50 to 55 degrees. If the butter granules seem soft we use water at 45 degrees. The churn is then turned a few times and the water removed. Salt is added at the rate of seven pounds for 100 pounds of butter, and the churn is again turned for seven or eight minutes. Then after a pause of a few minutes it is turned again. We watch carefully not to overwork the butter to destroy the grain.

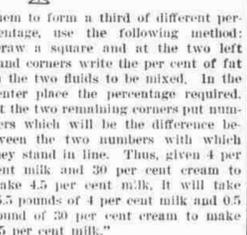
In preparing tubs first wash them thoroughly, then place over a steam jet and seal until heated through. This makes them water tight and removes all odor and taste from the wood. After this they are filled with water and the covers are put on and they are allowed to soak four or five hours. These are prepared the previous evening, so that they are ready for use when the butter is churned.

Before putting in the butter the tubs are lined with parchment paper, which keeps the butter cleaner and prevents the absorption of flavors. We pack butter while it is plastic, taking four or five pounds at a time, packing it in carefully. Where tubs hold sixty pounds the butter must be packed solidly, so as to fill the tub and have no air spaces.

## Percentage Method.

In reply to the question "Can I determine the number of pounds of cream to be added to 100 pounds of 4 per cent milk to make it test 4.5 per cent?" Hoard's Dairyman says:

"Having two milks or creams of different richness and requiring to mix them to form a third of different percentage, use the following method: Draw a square and at the two left hand corners write the per cent of fat in the two fluids to be mixed. In the center place the percentage required. At the two remaining corners put numbers which will be the difference between the two numbers with which they stand in line. Thus, given 4 per cent milk and 30 per cent cream to make 4.5 per cent milk. It will take 25.5 pounds of 4 per cent milk and 0.5 pound of 30 per cent cream to make 4.5 per cent milk."



## Fats as Milk Feeds.

It was formerly believed that the fat in the food was the main source of the fat in the milk. A good cow, however, will produce in a year a much larger amount of fat in the milk than she consumes in the food, showing that the fats are in part produced from other nutriment, says the American Cultivator. Investigations that have been made show that it is not possible to increase either the percentage or the total amount of fat in the milk for any appreciable time by the feeding of fats or oils. Where fats have been fed to cows, even at the rate of two pounds or more per day of tallow, cottonseed oil or other fats, the fat content of the milk was not permanently increased.

## Meal For the Calf.

Hoard's Dairyman gives the following recipe for calf meal: One part pure ground flaxseed, two parts finely ground cornmeal, sifted; two parts finely ground oatmeal, sifted, and the whole well mixed. Then boil and allow to stand for twelve hours covered. Begin with one-fourth pound per day for calves a month old; new milk for the month previous and no solids. Increase the allowance as the calf grows older, but not to exceed a half pound a day. Keep fresh, sweet second cutting of clover or alfalfa hay before them.

## The Letter I.

The name of "I" is in Hebrew jod or jot, a hand, and the earliest characters representative of the sound closely resemble a hand with but three fingers. Little by little one finger after another dropped off until only the little finger was left, and the letter became the smallest in the alphabet, a jot or tittle—that is, the "I" and its dot being synonymous with the most insignificant things that could be described.

## NUGGETS OF SOUND SENSE.

Beware of the Entering Wedge of Socialism—Public Ownership.

In recording the defeat of a municipal waterworks scheme in Raleigh, N. C., after an educational campaign of several months' duration, the Evening Times of that city gives an analysis of municipal ownership which is well worth the careful study of all who have at heart the welfare of their cities. Quoting references to local conditions, the editorial reads as follows:

"Municipal ownership is contrary to the fundamental doctrine of the Democratic party, which opposes centralized parental government and craves out for the freedom of individuals. The function of the government is to govern, regulate and execute the laws made by the people and not to engage in trading and trafficking for speculative gain. The miserable failure which the state, backed by all its power and public treasury, made in the trading business while it owned and operated plank roads, canals and railroads is a blatant warning against municipal ownership.

"Municipal ownership is the first step in socialism, which strangles individual enterprise, deters the investment of capital in our city and retards industrial progress. When once started there is no limit to its scope until it becomes a large increase in municipal debt and taxes and an impairment of municipal credit. When a city engages in municipal ownership it runs the risk of constant suits for damages, while the state and county are deprived of taxes upon that much property.

"While many towns owning waterworks publish rates which appear to be cheap, they are in many instances deceptive for the reasons that, in addition to the rates, taxes are levied upon the people to pay interest on bonds, which when added to the rates make the consumer pay more than the rates charged by private plants. Many of these municipal plants if examined by experts according to the business rules of examining the affairs of private corporations would be proved to be running at a loss instead of a profit, as claimed.

"Under municipal ownership the chance of the laboring man for employment depends not upon his merits, but upon his political influence and pull, and if he is not able to use public water he still has to pay taxes for the benefit of the rich man who does.

"There is no more reason for municipal ownership of water than there is for butcher shops, bakeries, clothing stores, drug stores, livery stables, etc., and under the system of municipal government in this country it is a fertile source of graft, political corruption and bossism, a ready-made plan for a political campaign, a slick article with which to deceive the people and on which to ride into office and a machine to perpetuate the control of the boss. It has been aptly called "that vivid saffron color brick" under whose glittering tinsel lurks a delusion and a snare.

"Municipal ownership is dead! Long live good common-sense business!"

It is a curious fact that the board of aldermen which voted unanimously to renew the water franchise was elected on a municipal ownership ticket. Facts beat fancy if they have a fair chance.

## Pernicious Partisan Activity.

Nothing is more certain than that public ownership multiplies the possibilities of pernicious partisan activity. Employees of the postoffice department defeated Roosevelt's plan for a political campaign, a slick article with which to deceive the people and on which to ride into office and a machine to perpetuate the control of the boss. It has been aptly called "that vivid saffron color brick" under whose glittering tinsel lurks a delusion and a snare.

Strong men at the head of municipal employees in street cars, parks, paving, waterworks and lighting service could swing any election they might desire to control. Officials would be paralyzed as to their duties to the public through the necessity of placating or honoring these immense bodies of municipal employees. Then we should have the leaders of the aggregation making bargains with heavy interests for the delivery of votes to desired candidates or measures. Self interest, more or less corrupt, would supersede the disinterested patriotic motives and differences of opinion on which men now divide in local and general elections.—Terre Haute Star.

## Duluth, Minn.

At a recent meeting of the city council a resolution was passed authorizing the water board to make a contract with the Great Northern Power company to furnish electricity for operating the pumping station. Under the proposed contract the maximum price for pumping 1,000,000 gallons is \$6.50. Last year it cost the city \$8.90 per 1,000,000 gallons, without counting the cost of depreciation in the plant.—Electrical World.

## A Ray of Light From England.

Municipal indebtedness resulting from taking over public service utilities has become so burdensome in England that it is seriously suggested to avoid payment of interest by redeeming the bonds with noninterest bearing municipal notes. While this plan has not yet been approved by English financiers and statesmen, it may afford a ray of hope to some of our cities that are staggering under similar burdens.

## Down in Dixie.

The project to establish a municipal electric light plant was defeated by the board of aldermen of Lynchburg, Va., on the recommendation of a special committee appointed to investigate the matter.

## In Natchez, Miss., the citizens voted down a similar proposition.

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The Independent, New York City.....	3.00 2.50
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Cincinnati Post.....	2.00 2.50
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Daily and Sunday Press.....	2.00 1.50
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The American Boy.....	2.00 1.50
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