

Paper VI.—Scholarship.—(Time, 2½ hours.)

1. Multiply $2\frac{1}{2}$ by $4\frac{1}{2}$.
2. Divide 4.675 by 0.3.
3. Find $\sqrt{3.001}$.
4. What are the area and circumference of a circle whose radius is 4 feet?
5. A., B. and C. work together in a place 6 feet by 9 feet, they dig 200 feet ahead and are paid 50 cents per cubic yard. A. works 20 days, B. works 22 days, and C. works 24 days. How much does each receive?
6. What is the weight of 1 cubic yard of ironstone that has a specific gravity of 4.75?
7. What is the equivalent horsepower of 2,965,000 units of work per minute?
8. What must be the diameter of a working-barrel to pump in 12 hours as much water as one 12 inches in diameter does in 20 hours? Both going at the same speed.

APPENDIX VII.—EXTRACT FROM MINES REGULATION ACT, NOVA SCOTIA,
RESPECTING MANAGERS, UNDERGROUND MANAGERS AND OVERMEN.

40.—Every coal-mine to which this chapter applies shall, after the first of January (1890), be under the control and supervision of a manager, and the owner or agent of every such mine shall nominate himself or some other person to be the manager of such mine, and shall send written notice to the Commissioner of the name and address of such manager. And in no mine to which this chapter applies shall any person not now employed as a miner be "given the picks" to work as a miner unless he has been employed in a mine, in some capacity, for the space of one year. No one shall be given charge of a working-face in a mine who has not worked previously in a mine for the space of two years, nor shall any one now a miner be employed after the first of January to mine coal who is not a holder of a certificate of service; and no one not now a miner shall be "given the picks" to work as a miner until granted a certificate of competency after examination by the Board of Examiners appointed for the purpose of granting certificates as managers, overmen or shot-firers, or by an examining board to be hereafter appointed, who shall have power to frame laws and conditions under which said certificates shall be granted.

41.—The underground workings of every coal-mine to which this chapter applies shall be under the daily charge of an underground manager and overman holding certificates under this chapter.

42. - A person shall not be qualified to be a manager, underground manager or overman unless he be the holder of a certificate under this chapter.

43.—If any coal-mine to which this chapter applies is worked for more than fourteen days without there being such a manager, underground manager or overman as is required by this chapter, the owner and agent of such mine shall each be guilty of an offence against this chapter.

Provided that the owner and agent of such mine shall not be guilty of an offence against this chapter if he proves that he had taken all reasonable means by the enforcement of this section to prevent the mine being worked in contravention thereof.

If for any reasonable cause there is for the time being no manager of a mine qualified as required by this section, the owner or agent of such mine may appoint any person holding a certificate as underground manager under this chapter to be