

SUBJECT 3.—*Gases of Mines, Spontaneous Combustion, and Ventilation.*

1. Name the gases usually met with in coal-mines, with their respective peculiarities.
2. In securing adequate ventilation in a very gaseous mine, what are the chief points for consideration?
3. What are the indications of spontaneous combustion; and, having found a fire resulting from such in a disused part of the mine, how would you deal with it, the safety of the men engaged at the work having the first consideration?
4. Ventilate the attached plan, using the reference signs thereon to indicate your method.
5. What steps would you take if you were in charge of a working-district giving off gas and a sudden stoppage of the air-current took place?
6. If the anemometer registered 350 revolutions per minute in an airway 12 ft. by 7 ft., what total quantity of air would be passing?
7. What are the advantages of splitting air-currents, and, in your opinion, what is the best way of doing so?

