

## QUIZ 5A – APPLIED THERMODYNAMICS

NAME: .....

ID. NO.: .....

Analyse combustion of propane,  $C_3H_8$  with theoretical air required by determining following parameters:

- a) Chemical equation of the combustion process,
- b) Air-fuel ratio,
- c) Mass of the combustion product,
- d) Mass fraction of  $CO_2$ ,
- e) Mole fraction of  $CO_2$ , and
- f) Mass of dry combustion product.

## QUIZ 5B – APPLIED THERMODYNAMICS

NAME: .....

ID. NO.: .....

Analyse combustion of propane,  $C_3H_8$  with 80% theoretical air supplied by determining following parameters:

- a) Chemical equation of the combustion process,
- b) Air-fuel ratio,
- c) Mass of the combustion product,
- d) Mass fraction of  $CO_2$ ,
- e) Mole fraction of  $CO_2$ , and
- f) Mass of dry combustion product.

## QUIZ 5C – APPLIED THERMODYNAMICS

NAME: .....

ID. NO.: .....

Analyse combustion of propane,  $C_3H_8$  with 50% air excess by determining following parameters:

- a) Chemical equation of the combustion process,
- b) Air-fuel ratio,
- c) Mass of the combustion product,
- d) Mass fraction of  $CO_2$ ,
- e) Mole fraction of  $CO_2$ , and
- f) Mass of dry combustion product.