1. (a) Change $\frac{3}{11}$ to a decimal.

.....

(1)

(b) Prove that the recurring decimal $0.\dot{3}\dot{9} = \frac{13}{33}$

(3)

(Total 4 marks)

2. Prove that the recurring decimal $0.\dot{4}\dot{5} = \frac{15}{33}$

(Total 3 marks)

3. Express the recurring decimal $0.2\dot{1}\dot{3}$ as a fraction.

.....

(Total 3 marks)

4. Prove that $0.4\dot{7}\dot{3}$ can be written as the fraction $\frac{469}{990}$

(Total 2 marks)

5. Prove that the recurring decimal $0.\dot{1}\dot{7} = \frac{17}{99}$

(Total 2 marks)

6. (a) Express $0.\dot{2}\dot{7}$ as a fraction in its simplest form.

.....

(3)

x is an integer such that $1 \leq x \leq 9$

(b) Prove that $0.\dot{0}\dot{x} = \frac{x}{99}$

(2)
(Total 5 marks)

7. Change the recurring decimal $0.\dot{2}\dot{3}$ to a fraction.

.....

(Total 2 marks)

8. (i) Convert the recurring decimal $0.\dot{3}\dot{6}$ to a fraction.

.....

(ii) Convert the recurring decimal $2.1\dot{3}\dot{6}$ to a mixed number.
Give your answer in its simplest form.

.....

(Total 5 marks)

9. Convert the recurring decimal $2.14\dot{5}$ to a fraction.

.....

(Total 3 marks)

10. Express the recurring decimal $0.12\dot{6}$ as a fraction.

.....

(Total 3 marks)

11. Express $0.3\dot{2}\dot{8}$ as a fraction in its simplest form.

.....

(Total 3 marks)

12. The recurring decimal $0.\dot{7}\dot{2}$ can be written as the fraction $\frac{8}{11}$

Write the recurring decimal $0.5\dot{7}\dot{2}$ as a fraction.

.....

(Total 2 marks)

13. Express the recurring decimal $2.0\dot{6}$ as a fraction.
Write your answer in its simplest form.

.....

(Total 3 marks)