FRIDAY, 11 JUNE, MORNING – 9.30 to 12.00

SECTION A (45 marks)

Examination Number

Attempt all questions. You should not spend more than 45 minutes on this section.
Answer each question by writing one of (a), (b), (c), (d) in the box under each question number.
If you wish to change an answer, cross out your first choice and write your new answer near the box.
Mathematics tables may be obtained from the Superintendent.

THIS PAPER MUST BE ENCLOSED IN YOUR ANSWER BOOK

1. $2\frac{3}{8} - 1\frac{1}{4} =$

    (a) $1\frac{1}{2}$ (b) $\frac{7}{8}$ (c) $\frac{5}{8}$ (d) $1\frac{1}{8}$

2. $17\cdot125 \times 20 =$

    (a) $34\cdot25$ (b) $171\cdot25$ (c) $342\cdot50$ (d) $34\cdot50$

3. IR£10 + 15% VAT in IR£ is

    (a) $11\cdot50$ (b) $10\cdot15$ (c) $15\cdot15$ (d) $15\cdot00$

4. The area of a disc is 9π. The length of its radius is

    (a) 9   (b) 6π (c) 3   (d) $4\cdot5\pi$

5. A car uses 3 litres of petrol for every 36 km travelled. On a journey of 216 km, the number of litres used is

    (a) 12   (b) 18   (c) 2   (d) 4

6. Which one of the following translations does not map the equilateral $\triangle mnk$ onto the equilateral $\triangle pkq$?

    (a) $\vec{nq}$ (b) $\vec{nk}$

    (c) $\vec{mp}$ (d) $\vec{kq}$

7. The image of $[xy]$ under the projection on yz parallel to xz is

    (a) $[xz]$ (b) $[yz]$

    (c) the point y (d) the point z

8. $x^2 =$

    (a) 4   (b) 8

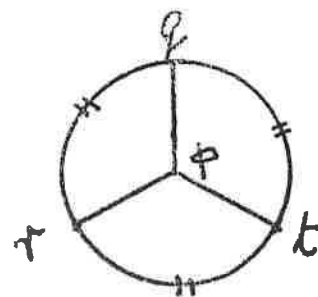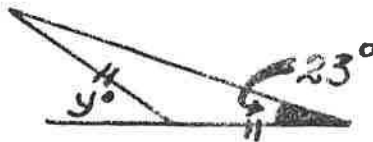   (c) 32   (d) 64

OVER →

9. p is the centre of the circle. $[pr]$ is the image of $[pq]$ under the anti-clockwise rotation about p of angle
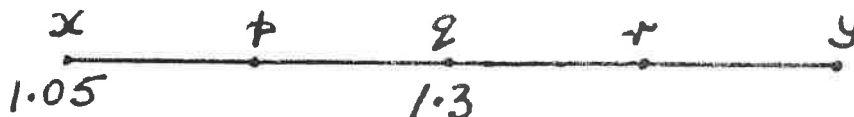
(a) 60°   (b) 120°

(c) 180°   (d) 360°

10. $y =$

(a) 134   (b) 46

(c) 23   (d) 44

11.

x p q r y

1.05 1.3

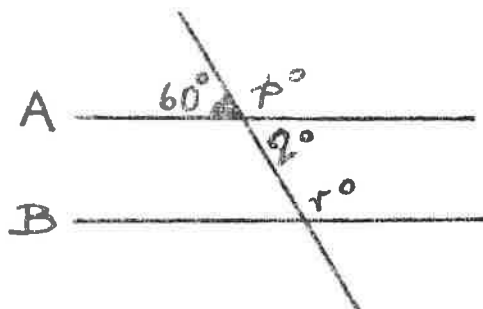$[xy]$ is divided into four equal parts. The number 1·425 is represented by

(a) p (b) r (c) y (d) no one of these

12. tan 47° 32′ is

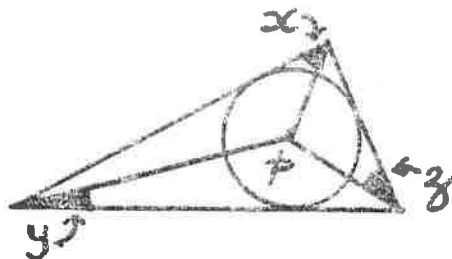(a) 1·0926   (b) 0·0926   (c) 0·0900   (d) 0·7377

13. A ∥ B. Which one of the following is false ?

(a) $r = 120$ (b) $r = p$

(c) $r + q = 180$ (d) $p + q + r = 240$

A ——— 60° $p°$
                $q°$
B ——————— $r°$

14. p is the centre of the incircle. $x + y + z =$

(a) 360°   (b) 180°

(c) 90°   (d) 45°

15. If $A = 43° 7′$, then k is

(a) 7·3   (b) 7·304

(c) 6·835   (d) 9·364