UEB TECHNICAL

PRACTICE TEST INSTRUCTIONS

- Use 40 cells per 25 braille lines per braille page.
- The only braille on line 25 is your name and the page number. Begin your name in cell 1. Begin the page numbering with 1 and end each page number in cell 40.
- There is no relationship between any of the technical items to be brailled. They are all taken out of context.
- There may be more than one correct answer to a question.
- Format choice will not be part of the test.
- Transcribe your answers using the following format:
    - place the question number at the left margin on a line by itself;
    - braille your answer beginning at the left margin on the next line; and
    - leave a blank line before the next question number.

1.
Your brailled answer
Blank line
2.
Your brailled answer
Blank line
3. etc.

1.
$\frac{1}{2}$, $1\!\!/\!\!_2$ and 1/2

2.
$7-\left(\frac{2}{3}+4\frac{1}{2}\right)$

3.
2 m $\ll$ 2 km

4.
$x : y = 5 : 7$

5.
$\frac{2.5}{3} = \frac{\qquad}{30\,000}$

6.
If $|x| \leq 3$ then $-3 \leq x \leq 3$

7.
$F \propto \frac{1}{d^2}$

8.
$\left(f^{-1} \circ f\right)(x) = x$

9.
If XY $\perp$ YZ then $\angle$Y = 90°

10.
$16^{\frac{1}{4}} = \sqrt[4]{16} = 2$

11.

$$\frac{\frac{x}{2}+\frac{3x}{8}}{\frac{x}{4}}$$

12.

$$x^3y \neq x^{3y}$$

13.

$${}_7C_4 = \binom{7}{4}$$

14.

$$\int_2^5 x^3 dx$$

15.

$$1 \div 7 = 0.\dot{1}42857\dot{}$$

16.

$$5^{-3} = \frac{1}{5^3}$$

17.

$$\lim_{x \to 0} \frac{\sin x}{x}$$

18.

$$\sin 2\theta = 2\sin\theta\cos\theta$$

19.

$$\tan X = \frac{opposite}{adjacent}$$

20.

$$\overrightarrow{AB} = (-4, 5)$$

21.

$$\begin{pmatrix} 7 & -4 & 9 \\ 12 & 1 & -6 \end{pmatrix}$$

22.

$$\begin{bmatrix} x & y & z \end{bmatrix} \begin{bmatrix} 2a \\ b \\ -c \end{bmatrix}$$

23.

$$\{m \mid m \in n \text{ and } m \notin \mathbb{N}\}$$

24.

$$\alpha \cdot (\beta \cdot \delta) = (\alpha \cdot \beta) \cdot \delta$$

25.

$$A \cap A' = \emptyset$$

26.

$$\{2c, d\} \subset \{a, b, 2c, d\}$$

27.

$$\sum_{i=6}^{7} x_i = x_6 + x_7$$

28.

$$S_{\bar{x}} \to \frac{\sigma}{\sqrt{n}} \text{ as } n \to \infty$$

29.

$$7\sqrt{x} + \frac{x^2 - 8}{x}$$

30.
http://vision/2018.child.ie

31.
$$\log_2 x = \frac{\log x}{\log 2}$$

32.
$$A \to B \vdash \neg B \to \neg A$$

33.
$$\blacksquare + \blacksquare = 10$$

34.
$$\mathrm{NaOH} + \mathrm{HCl} \rightarrow \mathrm{NaCl} + \mathrm{H_2O}$$

35.
$$N_{\mathrm{KMnO_4}}$$

36.
$$\mathrm{NH_4^+}_{(aq)} + \mathrm{OH^-}_{(aq)}$$

37.
$$2\mathrm{H_2O} \rightleftharpoons \mathrm{H_3O^+} + \mathrm{OH^-}$$

38.
$$y = \begin{cases} x, & \text{if } x \leq 0 \\ 0, & \text{if } x > 0 \end{cases}$$

39.
$$\left(\exists x\right)\left(\exists y\right)\left[x + y = 85\right]$$

40.
$$\frac{10!}{8!} = 10 \times 9$$

41.
Median $\tilde{x}$ is $\mu_{\frac{1}{2}}$

42.
$$\frac{192}{80} = \frac{\Delta}{40} = \frac{\bigcirc}{\square}$$

43.
$$\sqrt[3]{\sqrt{729}}$$

44.
Distance is $\sqrt{(\Delta x)^2 + (\Delta y)^2}$

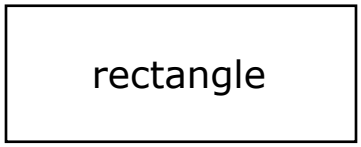
45.
$$\cos(A + B) = \cos A \cos B - \sin A \sin B$$

46.
$$a_n = a_{n-1} + 3a_{n-2}$$

47.
```
void rev(string s) {
  if (!s.empty()) {
    rev(s[1..s.length]);
  }
  print(s[0]);
}
```

48.
$$\begin{array}{r} 345 \\ 23 \\ +1987 \\ \hline 2855 \end{array}$$

49.



50.