2016 E.C 1st Semester 2nd Quarter Maths 1st Worksheet for grade 9th

Name ---------- Grade ---------- Section --------- No ----------

I. Write True or False accordingly.

_____1. $|2-2\sqrt{2}|=1-\sqrt{2}$
_____2. $|a-b|=a-b$
_____3. *For any real number* a, $a^0=1$
4. $(\sqrt{2})^{-1}\times(\sqrt{2})^{-1}=2$

II. Match column A with B. Represent the following using intervals.

"A"	"B"
_____5. $x\geq 5$	A. $(-\infty,5]$
_____6. $x<5$	B. $(5,-\infty]$
_____7. $x>5$	C. $(-\infty,5)$
_____8. $x\leq 5$	D. ¿
	E. $[5,\infty]$

III. Choose the correct answer and write the letter on the space provided.

_____9. $\sqrt[4]{(-5)^4}=$¿_____
A. 5 B. -5 C. 4 D. -4

_____10. *Simplify* $\sqrt[3]{16}\times\sqrt[3]{4}$
A. 8 B. 4 C. 2 D. $4\sqrt{2}$

11. *When* $(5^{-1})^3\times\sqrt{25}\times(\sqrt[3]{125})^3$ *is simplifid*
A. 5^{-3} B. $\frac{1}{25}$ C. 5^2 D. $\frac{1}{5}$

_____12. $3\sqrt[3]{27}-\sqrt[3]{125}-\sqrt{16}$ equals.
A. -7 B. $\sqrt{20}$ C. $\sqrt{3}$ D. 0
_____ E. ¿

13. *Which of the following is irrational?*
_____ A. $(\sqrt{2}+1)(\sqrt{2}-1)$ B. $(2\sqrt{6})(\sqrt{6})$ C. $\frac{\sqrt{27}}{\sqrt{3}}$ D. ¿

14. *Simplify* $(5\sqrt{3}-2\sqrt{2})-(\sqrt{2}-4\sqrt{3})$
_____ A. $5\sqrt{3}-2$ B. $\sqrt{3}+2\sqrt{2}$ C. $2\sqrt[3]{2}+\sqrt{3}$ D. $\sqrt{3}-2\sqrt{2}$

15. *Simplify* $\sqrt[3]{54}-\sqrt[3]{2}$
A. $5\sqrt{7}-\sqrt[3]{2}$ B. $\sqrt[3]{9}-2$ C. $\sqrt[3]{18}$ D. $2\sqrt[3]{2}$

IV. Work out.

16. *Simplify* $2\sqrt{18}-\sqrt{2}+\sqrt{8}$
17. Express in exponent.

a) $\sqrt[3]{\frac{2}{5}}$ b) $\frac{1}{\sqrt[4]{5}}$

18. Express in radicals

a) $3^{\frac{1}{4}}$ b) $2^{\frac{-1}{3}}$

19. *Reciprocal of* $3^{\frac{-1}{2}} =$ _____