



School of Carpenter Skills

Session: 2019-20 (Summer Semester)

B. Voc. Program, I Semester,

2<sup>nd</sup> In-Sem. Examination

Course Code: GEN1104

Time: 1 Hour

Course Name: Elementary Mathematics

Max. Marks: 20

Instructions:

1. Answer all questions from section A, each question carries one mark.
2. Answer all questions from section B, each question carries two marks.
3. Answer all question from section C, each question carries three marks.

**Section – A**

Q 1 Which one of the following is the Circumference of circle having radius 2 cm ?

- (A)  $4\pi$       (B)  $2\pi^2$       (C)  $3\pi$       (D) 1

Q 2 Which one of the following is 10% of 60?

- (A) 6      (B) 7.5      (C) 3      (D) 7

Q 3. Which one of the following is the volume of cylinder, were "r" is radius and "h" is height of the cylinder?

- (A)  $V = 2\pi r^2 h$       (B)  $V = \pi R^2 h$       (C)  $V = \pi r^2 h^2$       (D)  $V = \pi r^2 h$

Q 4 Which one of the following is the area of MDF board having length 6 feet and width 4 feet?

- (A) 24 Square feet      (B) 40 Square feet      (C) 45 square feet      (D) 50 square feet

Q 5. If the hypotenuse of a right triangle is 13 inch and one leg is 5 inch, find the measure of the other leg

- (A) 3 inch      (B) 12 inch      (C) 5 inch      (D) 2 inch

**Section – B**

Q.6. Find the area of a rectangular shaped lot with a length of 40 yards and a width of 60 yards.

Q.7 Calculate the volume of cylinder in having diameter 30 cm and height 65 cm.

Q.8 Carpenter constructed a almira in 4000 Rs and sold it with 10% loss, calculate selling price of almira.



## Section – C

Q9. If you deposit \$6500 into an account paying 8% annual interest compounded monthly, how much money will be in the account after 7 years?

Q 10 You want to put down hardwood floors in your living room that is roughly 20 feet by 15 feet. If the cost of the hardwood flooring is \$6.00 per square foot, find the approximate cost not including labor to put down hardwood flooring in your living room?

Q11. How much money would you need to deposit today at 10% annual interest compounded monthly to have \$15000 in the account after 5 years?



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Max. Marks: 20

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3. Answer all question from section C, each question carries three marks.

Section – A

Q 1. If the hypotenuse of a right triangle is 5 inch and one leg is 3 inch, find the measure of the other leg

- (A) 3 inch                      (B) 4 inch                      (C) 5 inch                      (D) 2 inch                      (B)

Q 2. Which one of the following is the Circumference of circle having radius 1 cm ?

- (A)  $2\pi$                       (B)  $2\pi^2$                       (C)  $3\pi$                       (D) 1                      (A)

Q 3. Which one of the following is 10% of 50?

- (A) 5                      (B) 7.5                      (C) 3                      (D) 7                      (A)

Q 4. Which one of the following is the volume of cylinder, were "r" is radius and "h" is height of the cylinder?

- (A)  $V = 2\pi r^2 h$                       (B)  $V = \pi R^2 h$                       (C)  $V = \pi r^2 h^2$                       (D)  $V = \pi r^2 h$                       (D)

Q 5 Which one of the following is the area of MDF board having length 8 feet and width 4 feet?

- (A) 32 square feet                      (B) 40 square feet                      (C) 45 square feet                      (D) 50 square feet                      (A)

Section – B

Q.6. Find the area of a rectangular shaped lot with a length of 50 yards and a width of 40 yards.

$$\begin{aligned} \text{Area} &= L \times W \\ &= 50 \times 40 \\ &= 2000 \text{ (Yard)}^2 \end{aligned}$$



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Q.7 Calculate the volume of cylinder in having diameter 20 cm and height 45 cm.

$$\begin{aligned}V &= \pi r^2 h \\&= \frac{22}{7} \times 20 \times 20 \times 45 \\&= 56,571.42 \text{ (mm)}^3\end{aligned}$$

Q.8 Nitin constructed an almira in 3000 Rs and sold it with 10% loss. Calculate selling price of almira.

$$\begin{aligned}SL &= P.P - \text{loss} \\&= 3000 - \frac{3000 \times 10}{100} \\&= 2700 \text{ Rs}\end{aligned}$$

## Section - C

Q9 If you deposit Rs.4000 into an account paying 6% annual interest compounded quarterly, how much money will be in the account after 5 years.

$$FV = 4000 \left(1 + \frac{0.06}{4}\right)^4(5)$$

$$FV = 4000 \left(\frac{4 + 0.06}{4}\right)^{20}$$

$$FV =$$

Q 10. You want to put down hardwood floors in your living room that is roughly 18 feet by 16 feet. If the cost of the hardwood flooring is \$5.00 per square foot, find the approximate cost not including labor to put down hardwood flooring in your living room?

$$\begin{aligned}\text{Floor area} &= L \times W \\&= 18 \times 16 =\end{aligned}$$

$$\text{Total charge} = 18 \times 16 \times 5 = \$1440$$



Q11 How much money would you need to deposit today at 9% annual interest compounded monthly to have \$12000 in the account after 6 years?

$$12000 = P \left( 1 + \frac{0.09}{12} \right)^{12(6)}$$

$$12000 = P \left( \frac{12 + 0.09}{12} \right)^{72}$$

$$P =$$

