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**K.P.C. PUBLIC SCHOOL, KHARGHAR**

**Assessment V 2022-2023**

**GRADE: VII MARKS: 50**

**SUB: MATHS TIME: 2 HRS**

**Q1: CHOOSE THE CORRECT ANSWER: 6M**

1. In ∆ABC and ∆ XYZ, AB= XY=5cm, BC=YZ= 6cm and AB=XZ=7 cm. The two triangles are congruent through which congruency criterion?
2. SSS b. SAS c. ASA d. AAS
3. Cuboid has \_\_\_\_ edges.
4. 6 b. 8 c. 10 d. 12
5. A polynomial having three terms is called a \_\_\_\_\_\_.
6. Binomial b. Monomial c. Trinomial d. None of these
7. Area of a parallelogram = \_\_\_\_\_\_\_.
8. $\frac{1}{2}$ x b x h b. b x h c. l x b d. side x side
9. \_\_\_\_\_ = SP – CP
10. Profit b. Loss c. Simple Interest d. Percentage
11. If a dice is rolled probability of getting 7 is \_\_\_\_.
12. $\frac{1}{6}$ b. $\frac{1}{7}$ c. 0 d. None of these

**Q2: SOLVE THE FOLLOWING: 8M**

1. Solve: 9(*x* + 2) = 108
2. Draw net for: i. Cube ii. Rectangular pyramid.
3. Find the perimeter of a rectangle. If the breadth of the rectangle is 30cm and its length is 35cm.
4. Convert 45% into fraction of lowest form and decimal.

**Q3: EVALUATE THE FOLLOWING: [Any 3] 9M**

1. Find the area enclosed between two concentric circles of radii 8cm and 6cm respectively.
2. A garden has 2000 trees. 12% of these trees are mango trees, 18% are lemon trees and rest 70% are orange trees. Find the number of lemon and orange trees in total.
3. The age (in years) of 10 teachers of a school is as follows: 42,31,29,32,54,36,35,28,45 and 25.
4. What is the age of the youngest and the eldest teacher?
5. Calculate the range and the mean age of the teachers.
6. What will be the new mean age if a new teacher of age 32 years is employed?
7. The marks obtained by Arjun in a unit test are as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Subject | English | Hindi | Marathi | Maths | Science | Social science |
| Marks (out of 100) | 69 | 62 | 88 | 91 | 73 | 65 |

Draw a bar graph to represent the given data.

**Q4: EVALUATE THE FOLLOWING: [Any 3] 12M**

1. A rectangular park is 40m long and 25m wide. A path of 2.5m wide is constructed outside and around the park. Find the area of the path.
2. Ranjit throws a dice. Find the probability of getting:
3. An even number b. An odd number c. A number less than 4 d. A prime number
4. Gaurav lost 10% by selling a cycle for ₹1350. Find the cost price of the cycle.
5. The runs scored by 11 players in a cricket match are as follows: 15, 30, 100, 82, 20, 0, 2, 42, 62, 25, 20. Find the mean, median and mode of the given data. Are the three same?

**Q5: SOLVE THE FOLLOWING: [Any 3] 15M**

1. Christopher has three boxes of different chocolates. First box weighs 100 g more than the third box and the second box weighs 50 g more than the third box. If the total weight of the three boxes is 750 g, find the weight of each box.
2. A veranda of width 2.1m is constructed all along outside a circular conference hall of radius 10.5m. Find the cost of cementing the floor of the veranda at the rate of ₹ 15.20 per sq. m.
3. A sum of ₹4000 amounts to ₹ 5000 in 5 years. what will ₹3500 amount to at the same rate of simple interest in 3 years.
4. The following data shows the maximum and minimum temperature of some cities of India on a particular day.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| City | Delhi | Mumbai | Kolkata | Chennai | Amritsar  | Jaipur  | Thiruvananthapuram  |
| Max. Temp | 35∘ C | 32∘ C | 39∘ C | 41∘ C | 37∘ C | 34∘ C | 30∘ C |
| Min. Temp. | 29∘ C | 25∘ C | 35∘ C | 38∘ C | 26∘ C | 24∘ C | 22∘ C |

Draw the double bar graph to represent the given information and then answer the following questions.

a. Which city has the highest minimum temperature?

b. Which city is the hottest city?

c. Which city has the highest difference in the maximum and minimum temperatures on the given day?

d. Name the city which has the least difference in the maximum and minimum temperatures on the given day.