

Shivraj Pabson Cluster Examination
First Term Exam 2081

Time: 2hrs

Class:- 8

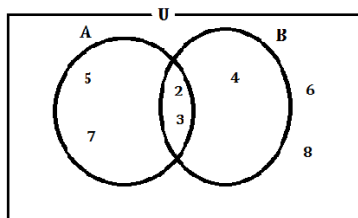
Sub:- Maths

F:M=50

P:M=

Attempt all questions.

1. A venn diagram is given .



- a) Define improper sub-set . 1
- b) Write all the subset with two members of set A. 1
- c) Sets A and B are overlapping sets ? Justify it . 1
2. Two sub-sets of the universal set $U = \{a, b, c, d, e\}$ are $P = \{a, b, c\}$ and $Q = \{c, d, e\}$.
 - a) Define overlapping set. 1
 - b) Write common sub-sets of the sets P and Q. 1
 - c) Which element of set P and set Q is to be removed to make them disjoint sets? 1
3. $A = \{x: 2 \leq x \leq 4, x \in N\}$ $B = \{x: x \leq 3, x \in N\}$ are the sub-sets of the universal set $U = \{x: x \leq 6, x \in N\}$.
 - a) Write the sets A, B and U in listing method. 1
 - b) Write the all common sub-set of set A and B with two elements . 1
 - c) Write the improper subset of the set B. 1
4. a) Write the number 23500000 in scientific notation . 1
 - b) Convert $0.2\bar{4}$ into fraction. 2
 - c) Convert 435 into binary number system. 2
5. a) Convert 1.525×10^4 into decimal number . 1
 - b) If 5 pens can be bought for rs.80 find how many pens can be bought for Rs 128. 2
 - c) Convert $(101101)_2$ into decimal number. 2
6. a) Find the ratio of 750gm and 2kg . 1
 - b) Simplify and write the answer in scientific notation. 3

$$\frac{1.1 \times 10^3 + 2.3 \times 10^3}{1.7 \times 10^{-6}}$$
 - c) Convert 512 into quinary number system . 2
7. a) Convert 0.00000235 into scientific notation . 1
 - b) If 3, x, 6 and 8 are in proportion find the value of x. 2

c) Convert the quinary number $(3421)_5$ into decimal number. 2

8.a) if the cost of 10kg of apples is Rs .2500, what is the cost of 15kg of apples at the same rate ? 2

b) Rajan divides Rs.800 between his son and daughter in the ratio of 3:2 , find how much would each of them get ? 2

9.a) How many digits are there in binary number system and what are they ? 1

b) Which of the following numbers are irrational number ? 1

$$\sqrt{4}, \sqrt{2}, 0.15, \frac{22}{7}$$

c) The ratio of milk and sugar in a sweet is 5:4 . if the milk is 650gm, then find the quantity of sugar . 2

10. a) If 5, x and 20 are in continued proportion , find the positive value of x . 2

b) Simplify and write down the result in scientific notation. 2

$$\frac{(8.6 \times 10^{-3}) \times (3.9 \times 10^{-6})}{(3.6 \times 10^{-7}) \times (4.3 \times 10^{-3})}$$

11. The cost price of a mobile is Rs. 20,000 and the marked price is 20% above the cost price.

- a) Write the formula to find profit percent. 1
- b) Find the marked price of the mobile . 2
- c) If the mobile sold for Rs.23,000 find the discount amount . 1

12) A watch with marked price Rs.15000 is sold for Rs.12000.

- a) Find the discount amount . 1
- b) Write the formula to find the discount percent . 1
- c) Find the discount percent . 2

The End