

**Shivraj Pabson Cluster Examination  
First Term Exam 2081**

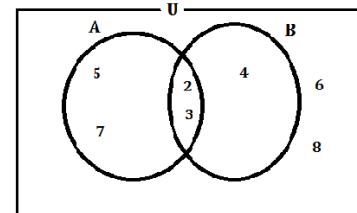
**Time: 2hrs**  
**Class:- 8**

**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  $0.\overline{24}$  into fraction. 2
  - c) Convert 435 into binary number system. 2
- 5. a) Convert  $1.525 \times 10^4$  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