D.A.V. PUBLIC SCHOOL, BERHAMPUR, ODISHA
OBJECTIVE QUESTIONS
STD:-XII (2019-20) MATHEMATICS

CHAPTER:--1(RELATION AND FUNCTION)

1. Let f : R→R be given by f(x) = $(8 - x^3)^{\frac{1}{3}}$ then find fof(x) .
   Ans:- x
2. Let f: { 1,3,4}→ { 1,2,5} and g: { 1,2,5}→ { 1,3} be given by
   f ={ (1,2),(3,5),(4,1)}g = { (1,3),(2,3),(5,1)} Find gof.
   Ans:- gof={ (1,3),(3,1),(4,3)}
3. In the set A= { 1,2,3,4,5} a relation R is defined as R={(x,y): x,y and x<y},then R is(A) reflexive (B)symmetric(C) transitive (D)an equivalence relation
   Ans:- (C) transitive
4. Write the smallest equivalence relation in the set of first three prime numbers.
   Ans-{ (2,2),(3,3),(5,5)}
5. The range of the function f(x)=$\frac{|x-2|}{x-2}$
   Ans:- $\{-1,1\}$
6. What is the maximum number of equivalence relations on the set A=$\{a,b,c\}$
   Ans:- 5
7. Let f : R→R be given by f(x)=x^2+1 .Then find the pre-image of 17
   $Ans: -\pm 4$
8. If A=$\{1,2,3,---,n\}$and B=$\{a,b\}$ Find the number of surjections from A to B.
   Ans:- 2^n-2
9. If set A has 4 elements ,set B has 5 elements.Find the number of injective mappings from A to B.
   Ans:- 5_{p_4}=120
10. If f(x)=[x],where[.] is the greatest integer function and g(x)=|x|find gof(-$\frac{5}{4}$).
    Ans:- 2