

# **S. R. MEMORIAL SCHOOL**

## **SESSION 23-24**

### **HOLIDAY HOMEWORK**

#### **CLASS - 12 COMMERCE**

##### **ENGLISH**

1. YOU ARE G. YADAV OF 27/D-30, LABOUR CROSSING VINEET COLONY, SHANTIPURAM, PRAYAGRAJ. THE ROADS IN VINEET COLONY ARE DAMAGED CAUSING INCONVENIENCE TO THE RESIDENTS. WRITE A LETTER TO THE EDITOR, THE TIMES OF INDIA DRAWING ATTENTION OF THE CONCERNED AUTHORITIES TO THIS PROBLEM.
2. YOU ARE SUCHITA MALHOTRA, THE PRINCIPAL OF CHRIST THE SAVIOR ACADEMY, MEERUT. WRITE A NOTICE IN ABOUT 50 WORDS INFORMING THE STUDENTS THAT THE TIMING OF THE SCHOOL HAS BEEN CHANGED. ALSO, CITE AN APPROPRIATE REASON FOR THE SAME.
3. GROW MORE TREES TO REDUCE POLLUTION. WRITE AN ARTICLE IN 150-200 WORDS ON THE TOPIC GIVEN ABOVE FOR YOUR SCHOOL MAGAZINE.
4. WRITE THE CHARACTER SKETCHES OF, THE TIGER KING. (ABOUT 150 WORDS.)
5. DESCRIBE ANTARCTICA AS A PLACE OF WONDER.

##### **PHYSICS**

- 1) Find the electric field intensity due to various shapes as per your syllabus?
- 2) Write the application of Gauss' law ?
- 3) Make a modal on electromagnet ?
- 4) Draw the electric field lines due to various combination of charges in chart paper?
- 5) Make a modal on attraction and repulsion of electric charges ?

##### **CHEMISTRY**

Internal Assignment

Maintain one project file of the following topics

1. Amino acid
2. Nucleic acid
3. Carbohydrates
4. Vitamin
5. Harmonic methods of water purification
6. Antibiotic
7. Antacid
8. P-block elements
9. S-block elements
10. Biomolecule
11. Study of oxalate ions in guava fruits at different stage of ripening
- 12.

Alcohol 13. Carboxylic acid 14. Aldehyde

**Instructions:**

1. Cover your file with yellow chart paper
2. Minimum no of pages is 15

**MATHEMATICS**

Q1. If the number of elements of the sets A and B are p and q respectively. then, the number of relations from set A to set B is

(a)  $2$

(b)  $2p+q$

(c)  $p + q$

(d)  $pq$

Q2. For any two real numbers x and y, we define  $xRy$ , if and only if  $\sec^2x - \tan^2y = 1$ . The relation R is:

(a) Reflexive but not transitive

(b) Symmetric but not reflexive

(c) Both reflexive and symmetric but not transitive

(d) An equivalence relation

Q.3 If Z is the set of integers. Then the relation  $R = \{(a,b) : 1+ab > 0\}$  on Z is:

(a) reflexive and transitive but not symmetric

(b) symmetric and transitive but not reflexive

(c) reflexive and symmetric but not transitive

(d) an equivalence relation

Q.4 If R is a relation on the set N, defined by  $\{(x,y) : 2x-y=10\}$ , then R is:

(a) reflexive (b) symmetric

(c) Transitive (d) none of these

Q.5 If R is a relation from  $\{11,12,13\}$  to  $\{8,10,12\}$  defined by  $y=x-3$ . Then  $R^{-1}$  is equal to:

(a)  $\{(8,11), (10,13)\}$

(b)  $\{(11,18), (13,10)\}$

(c)  $\{(10,13), (8,11)\}$

(d) None of these

Q.6 If R is an equivalence relation on a set A, then  $R^{-1}$  is

(a) only reflexive (b) symmetric but not transitive

(c) equivalence (d) none of the above

Q.7 The relation 'has the same father as' over the set of children is:

(a) only reflexive (b) only symmetric

(c) only transitive (d) an equivalence relation

Q.8 The relation R in the set Z of integers given by  $R = \{(a,b) : a-b \text{ is divisible by } 5\}$  is

- (a) reflexive (b) reflexive but not symmetric
- (C) Symmetric and transitive (d) an equivalence relation

Q.9 Let Z denote set of all integers. Define a relation R on Z as 'aRb if  $ab \geq 0$  where  $a, b \in Z$ '. Then R is

- (a) Reflexive but neither symmetric nor transitive relation
- (b) Reflexive, symmetric but not transitive relation
- (C) An equivalence relation
- (d) Symmetric but neither reflexive nor transitive relation

Q.10 The relation S is defined on the set of integers Z as  $xSy$  if integer x divides integer y. Then

- (a) S is an equivalence relation
- (b) S is only reflexive and symmetric
- (c) S is only reflexive and transitive
- (d) S is only symmetric and transitive

Q.11 Let X be the set of all persons living in a city. Person x, y in X are said to be related as  $x < y$  if y is at least 5 years older than x. Which one of the following is correct?

- (a) The relation is an equivalence
- (b) The relation is transitive but neither reflexive nor symmetric
- (C) The relation is reflexive but neither transitive nor symmetric
- (d) The relation is symmetric but neither transitive nor reflexive.

Q.12 Let X be the set of all persons living in Delhi. The person a and b in X are said to be related if the difference in their ages is at most 5 years. The relation is

- (a) An equivalence relation
- (b) Reflexive and transitive but not symmetric
- (C) Symmetric and transitive but not reflexive
- (d) Reflexive and symmetric but not transitive

Q.13 Let R be a relation on the set N of natural numbers defined by  $nRm \Leftrightarrow n$  is a factor of m. Then which one of the following is correct?

- (a) R is reflexive, symmetric but not transitive
- (b) R is transitive, symmetric but not reflexive
- (C) R is reflexive, transitive but not symmetric

(d)R is an equivalence relation

Q.14 Let S be a set of all distinct numbers of the form  $p/q$ , where  $p, q \in \{1, 2, 3, 4, 5, 6\}$ . what is the cardinality of the set S?

(a)21 (b)23 (c)32 (d)36

Q.15 If we define a relation R on the set  $N \times N$  as  $(a, b)R(c, d) \Rightarrow a+d=b+c$  for all  $(a, b), (c, d) \in N \times N$  then the relation is

(a)symmetric only

(b)symmetric and transitive only

(c)equivalence relation

(d)reflexive only

Q.16 A relation R is defined on the set N of natural numbers as  $xRy \Rightarrow x^2 - 4xy + 3y^2 = 0$ . Then which one of the following is correct ?

(a)R is reflexive and symmetric, but not transitive

(b)R is reflexive and transitive but not symmetric

(c)R is reflexive, symmetric and transitive

(d)R is reflexive, but neither symmetric nor transitive

Q.17 Let  $S = \{1, 2, 3, \dots\}$ . A relation R on  $S \times S$  is defined by  $xRy$  if  $\log_a x > \log_a y$  when  $a = 1/2$ . Then the relation is

(a)reflexive only

(b)symmetric only

(c)transitive only

(d)both symmetric and transitive

Q.18 If A is a Matrix of type  $p \times q$  and R is a row of A, then what is the type of R as a Matrix?

Q.19 Write the number of all possible matrices of order  $2 \times 2$  with each entry 1, 2 or 3.

Q.21 If A is square Matrix of order 3 and  $|A| = 5$ , then find  $|\text{adj}A|$ .

### SUBJECT - BIOLOGY

Q.1. Do all question of ncert book chapter 1 and 2.

Q.2. Make a diagram of a flower or Male Reproductive system on chart paper.

Q.3. Prepare a working model of Uterus .

Q.4. Write about formation of microspore and megaspore with the diagram in holiday homework.

### HINDI

महादेवी वर्मा का जीवन परिचय एवं रचनाएं लिखिए

बच्चों पर किताबों का बढ़ता बोझ विषय पर फीचर लेखन लिखिए

## PHYSICAL EDUCATION

Procedure for Asanas, Benefits & Contraindication for any 5 Asanas for each lifestyle disease. (Make it's in file with Pictures)

## COMPUTER SCIENCE

Computer Science Assignment

Q1. Write a program to print cubes of numbers in the range 15 to 25.

Q2. What is the difference between a keywords and an identifier

Q3. what are literals in python? How many types of literals are allowed in python.

Q4. What is statement? What is the significance of an empty statement

Q5. Write a program to create a dictionary containing names of competition winner students as keys and number of their wins as value.

Q6. Write a program to find the sum of all number store in a list

Q7. Write a program to display student's marks from records.

Q8. Write a program that multiplies two integer numbers without using the \* operator, using repeated addition.

Q9. Write a program that reads a line and prints its statistics like:

Number of uppercase letters:

Number of lowercase letters:

Number of alphabets

Number of letters:

Q10. Write a program that finds an element's index/position in a tuple WITHOUT using index).