

**ITBP PUBLIC SCHOOL, DWARKA 16 B**  
**CLASS: XI**  
**STREAM: HUMANITIES**  
**WINTER HOLIDAY HOMEWORK**

**SUBJECT::ENGLISH**

Listen to podcasts/ interviews/ or a TV documentary on a current topic like and prepare a report countering or agreeing with the speakers. Write an 800 – 1000 words essay and submit.

(NOTE: This project is part of your internal assessment to be uploaded on the CBSE's site)

हिन्दी

शीतकालीन अवकाशीय – गृहकार्य

5 रचनात्मक लेख

2 परिपत्र

2 कार्यसूची

2 कार्य वृत्त

3 पत्र( संपादकीय, शिकायती, प्रार्थना)

2 प्रतिवेदन

परियोजना कार्य पूर्ण करें।

**SUBJECT:: MATHEMATICS**

**MULTIPLE CHOICE QUESTIONS**

Q.1 In a non-leap year, the probability of having 53 Tuesdays or 53 Wednesdays is

- a)  $1/7$
- b)  $2/7$
- c)  $3/7$
- d)  $4/7$

Q.2 Three numbers are chosen from 1 to 20. Find the probability that they are not consecutive

- a)  $186/190$
- b)  $187/190$
- b)  $188/190$
- d)  $18/{}^{20}C_3$

Q.3 While shuffling a pack of 52 playing cards, 2 are accidentally dropped. Find the probability that the missing cards to be of different colours

- a)  $29/52$
- b)  $1/2$
- c)  $26/51$
- d)  $27/51$

- Q.4 Seven persons are to be seated in a row. The probability that two particular persons sit next to each other is
- $1/3$
  - $1/6$
  - $2/7$
  - $1/2$
- Q.5 Without repetition of the numbers, four digit numbers are formed with the numbers 0,2,3,5. The probability of such a number divisible by 5 is
- $1/5$
  - $4/5$
  - $1/30$
  - $5/9$
- Q.6 If A and B are mutually exclusive events, then
- $P(A) \leq P(\bar{B})$
  - $P(A) \geq P(\bar{B})$
  - $P(A) < P(\bar{B})$
  - None of these
- Q.7 If  $P(A \cup B) = P(A \cap B)$  for any two events A and B, then
- $P(A) = P(B)$
  - $P(A) > P(B)$
  - $P(A) < P(B)$
  - None of these
- Q.8 6 boys and 6 girls sit in a row at random. The probability that all the girls sit together is
- $1/432$
  - $12/431$
  - $1/132$
  - None of these
- Q.9 A single letter is selected at random from the word 'PROBABILITY'. The probability that it is a vowel is
- $1/3$
  - $4/11$
  - $2/11$
  - $3/11$
- Q.10 If the probability for A to fail in an examination is 0.2 and that for B is 0.3, then the probability that either A or B fails is
- $> 0.5$
  - 0.5
  - $\leq 5$
  - 0
- Q.11 The probability that at least one of the events A and B occurs is 0.6. If A and B occur simultaneously with probability 0.2, then  $P(\text{not } A) + P(\text{not } B)$  is
- 0.4
  - 0.8
  - 1.2
  - 1.6
- Q.12 If M and N are any two events, the probability that at least one of them occurs is

- a)  $P(M)+P(N)-2P(M \cap N)$
- b)  $P(M)+P(N)-P(M \cap N)$
- b)  $P(M)+P(N)+P(M \cap N)$
- d)  $P(M)+P(N)+2P(M \cap N)$

**State whether the following statements are True or False:**

- Q.13 The probability that a person visiting a zoo will see the giraffe is 0.72, the probability that he will see the bears is 0.84 and the probability that he will see both is 0.52
- Q.14 The probability that a student will pass his examination is 0.73, the probability of the student getting a compartment is 0.13, and the probability that the student will either pass or get compartment is 0.96
- Q.15 The probabilities that a typist will make 0,1,2,3,4,5 or more mistakes in typing a report are, respectively, 0.12, 0.25, 0.36, 0.14, 0.08, 0.11.
- Q.16 If A and B are two candidates seeking admission in an engineering College. The probability that A is selected is 0.5 and the probability that both A and B are selected is at most 0.3. Is it possible that the probability of B getting selected is 0.7?
- Q.17 The probability of intersection of two events A and B is always less than or equal to those favorable to the event A.
- Q.18 The probability of an occurrence of event A is 0.7 and that of the occurrence of event B is 0.3 and the probability of occurrence of both is 0.4
- Q.19 The sum of probabilities of two students getting distinction in their final examination is 1.2

**Fill in the blanks in each of the following**

- Q.20 The probability that the home team will win an upcoming football game is 0.77, the probability that it will tie the game is 0.08, and the probability that it will lose the game is \_\_\_\_\_
- Q.21 If a,b,c,d are the four elementary outcomes in a sample space and  $P(a)=0.1$ ,  $P(b)=0.5$ ,  $P(c)=0.1$ , then the probability of d is \_\_\_\_\_
- Q.22 Let  $S=\{1,2,3,4,5,6\}$  and  $E=\{1,3,5\}$ , then 'not E' is \_\_\_\_\_
- Q.23 If A and B are two events associated with a random experiment such that  $P(A)=0.3$ ,  $P(B)=0.2$  and  $P(A \cap B) = 0.1$ , then we the value of  $P(A \cap \bar{B})$  is \_\_\_\_\_
- Q.24 The probability of happening of an event A is 0.5 and that of B is 0.3. If A and B are mutually exclusive events, then the probability of neither A nor B is \_\_\_\_\_

**Match the following**

- |   |                                     |
|---|-------------------------------------|
| Q.25 An incorrect assignment                            | a)0.95                              |
| Q.26 No chance of happening                             | b)0.02                              |
| Q.27 As much chance of happening as not                 | c)-0.3                              |
| Q.28 Very likely to happed                              | d)0.5                               |
| Q.29 Very little chance of happening                    | e)0                                 |
| Q.30 If E1 and E2 are the two mutually Exclusive events | a) $E1 \cap E2 = E1$                |
| Q.31 If E1 and E2 are two mutually                      | b) $(E1-E2) \cup (E1 \cap E2) = E1$ |

Exclusive and exhaustive events

Q.32 If  $E_1$  and  $E_2$  have common Outcomes, then

$$c) E_1 \cap E_2 = \emptyset, E_1 \cup E_2 = S$$

Q.33 If  $E_1$  and  $E_2$  are two events

$$d) E_1 \cap E_2 = \emptyset$$

Such that  $E_1$  is a subset of  $E_2$

### Long type Questions

- Q.34 One card is drawn from a well-shuffled deck of 52 cards. Find the probability that the card will be
- a spade
  - not an ace
  - a red card
  - not a red card
  - a king card
  - a face card
- Q.35 Three cards are drawn at random from a pack of well shuffled 52 cards. Find the probability that :
- all the three cards are of same suit
  - one is a king other is a queen and third is a jack.
- Q.36 If from a pack of cards a single card is drawn. What is the probability that it is
- either a king or a queen
  - either a spade or a king
- Q.37 A number  $x$  is chosen at random from numbers  $-3, -2, -1, 0, 1, 2, 3$ . What is the probability that  $|x| < 2$
- Q.38 Three horses A, B and C are in a race. A is twice as likely to win as B and B is twice as likely to win as C. What are the respective probabilities of winning?
- Q.39 A and B are mutually exclusive events for which  $P(A) = 0.3$ ,  $P(B) = p$  and  $P(A \cup B) = 0.5$ . Find the value of  $p$ .
- Q.40 One ticket is drawn at random from a bag containing 30 tickets numbered from 1 to 30. Find the probability that:
- It is multiple of 5 or 7
  - It is multiple of 3 or 5
- Q.41 A candidate is called for interview by the three companies. For the 1<sup>st</sup> company there are 12 candidates, for 2<sup>nd</sup> there are 15 candidates and for 3<sup>rd</sup> there are 10 candidates. What are the chances of his getting job in atleast in one of the company?
- Q.42 Find out the probability of getting a total of either 7 or 11 in a single roll of two dice.
- Q.43 The odd in favour of A hitting a target are 4:5 and that of B are 3:4. Find the probability of the target being hit at all, when they both try.
- Q.44 An urn contains twenty white slips of paper numbered from 1 to 20, ten red slips of paper numbered from 1 through 10, forty yellow slips of papers numbered from 1 to 40, and ten blue slips of paper numbered from 1 through 10. If these 80 slips of paper are thoroughly shuffled so that each slip has the same probability of being drawn. Find the probabilities of drawing a slip of paper that is
- blue or white
  - numbered 1,2,3,4 or 5
  - red or yellow and numbered 1,2,3 or 4
  - numbered 5,15,25 or 35
  - white and numbered higher than 12 or yellow and numbered higher than 26.
- Q.45 A bag contains 8 red and 5 white balls. Three balls are drawn at random. Find the probability that
- All the three balls are white
  - All the three balls are red
  - One ball is red and two balls are white
- Q.46 If the letters of the word ASSASSINATION are arranged at random. Find the probability that
- Four S's come consecutively in the word
  - Two I's and two N's come together
  - All A's are not coming together

iv) No two A's are coming together.

Q.47 A card is drawn from a deck of 52 cards. Find the probability of getting a king or a heart of a red card.

Q.48 A team of medical students doing their internship have to assist during surgeries at a city hospital. The probabilities of surgeries rated as very complex, complex routine, simple or very simple are respectively, 0.15, 0.20, 0.31, 0.26, 0.08. Find the probabilities that a particular surgery will be rated

- i) Complex or very complex
- ii) neither very complex nor very simple
- iii) routine or complex
- iv) routine or simple

Q.49 If A and B are mutually exclusive events,  $P(A)=0.35$  and  $P(B)=0.45$ , find

- i)  $P(A')$
- ii)  $P(B')$
- iii)  $P(A \cup B)$
- iii)  $P(A \cap B)$**
- iv)  $P(A \cap B')$**
- v)  $P(A' \cap B')$**

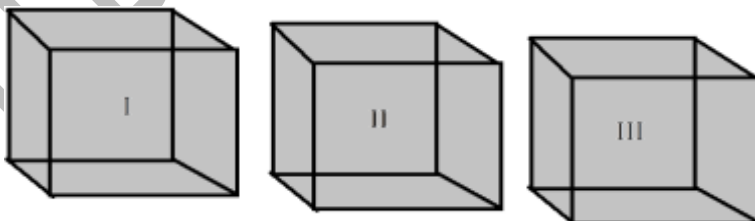
Q.50 In a large metropolitan area, the probabilities are 0.87, 0.36, 0.30 that a family (randomly chosen for a sample survey) owns a colour television set, a black and white television set, or both kinds of sets. What is the probability that a family owns either anyone or both kind of sets?

### Case study Questions

Q.51 Reena and Ajay are playing Ludo. Reena throws the die first. Find the probability of following events :

- i) A prime number will appear.  
a)  $\frac{1}{2}$       b)  $\frac{2}{3}$       c)  $\frac{1}{6}$       d) 0
- ii) A number greater than or equal to 3 will appear.  
a)  $\frac{1}{2}$       b)  $\frac{2}{3}$       c)  $\frac{1}{6}$       d)  $\frac{5}{6}$
- iii) A number less than or equal to one will appear.  
a)  $\frac{1}{2}$       b)  $\frac{5}{6}$       c)  $\frac{1}{6}$       d) 0
- iv) A number more than 6 will.  
a)  $\frac{1}{2}$       b)  $\frac{5}{6}$       c)  $\frac{1}{6}$       d) 0
- v) A number less than 6 will be appear.  
a)  $\frac{5}{6}$       b)  $\frac{1}{2}$       c)  $\frac{1}{6}$       d) 0

Q.52 Shiva has three identical boxes I, II and III, each containing two coins. In box I both coins are gold coins, in box II both coins are silver coins and in box III there is one gold and one silver coin. Shiva choose a box at random and takes out a coin.



- i) Probability of choosing one box is  
a)  $\frac{1}{6}$       b)  $\frac{1}{4}$       c)  $\frac{1}{3}$       d)  $\frac{1}{2}$
- ii) Probability of getting gold coin from box III is  
a) 1      b) 0      c)  $\frac{1}{3}$       d)  $\frac{1}{2}$
- iii) Total probability of getting gold coin is  
a)  $\frac{1}{6}$       b)  $\frac{1}{4}$       c)  $\frac{1}{3}$       d)  $\frac{1}{2}$

- iv) Probability of choosing box I and getting gold coin is  
 a)  $1/6$       b)  $2/3$       c)  $1/3$       d)  $1/2$   
 v) If drawn coin is of gold then the probability that other coin in box is of silver is  
 a)  $1/6$       b)  $2/3$       c)  $1/3$       d)  $3/4$

### ECONOMICS

Q. 1 Explain the relationship between marginal product and total product, using a suitable diagram.

Q. 2 Calculate the average and marginal product from the following:

Units of labours	1	2	3	4	5	6	7
Total Product	20	36	48	56	60	60	56

Q. 3 What is total cost, average cost and marginal cost? Explain the relationship between average cost and marginal cost with the help of a table and diagram.

Q. 4 A firm's MC schedule is shown in the following table. The total fixed cost of the firm is Rs. 100. Find the TVC, TC, AVC and AC schedule of the firm.

Q	0	1	2	3	4	5	6
MC	-	500	300	200	300	500	800

Q. 5 Distinguish among total, average and marginal revenue curves.

Q. 6 Distinguish between extension of supply and increase in supply with the help of diagrams.

Q. 7 Define Monopolistic competition. In what way does it differ from perfect competition?

### SUBJECT:: POLITICAL SCIENCE

Topics for Project work :

1 United Nations : Relevance in contemporary world

2 Globalization : A new Colonialism

3 Emergency : A dark phase of Indian Democracy

4 Indo- China Relations : A study of two super power

5 BJP : From two seats to Two terms

- Students have to make project on any one topic
- Internal assessment would be marked on the basis of project work

## **SUBJECT:: HISTORY**

Prepare ONE project report on the any one of the topic given below-

**1- Harrapan civilization**

**2- Buddhism and Jainism**

**3- vijaynagar empire**

**4- The three Travellers**

**5- Mahatma Gandhi**

**6- The Indian constitution**

**7- The revolt of 1857**

**8- Mughal art and architecture**

### **Important Instructions**

While preparing the project, the points to be kept in mind are:

- The project report should be handwritten.
- Use A4 size sheets.
- Compile the work in a folder.
- Page limit- 30-35sheets.
- **Project should have: cover sheet, index, introduction, conclusion, acknowledgement and bibliography/references.**
- The cover sheet of the project should have the following details:
  - i. Theme of the Project**
  - ii. Name**
  - iii. Class and Section**
  - iv. Subject**
- Use pictures, diagrams and relevant data for illustration.
- The collected data should have a reliable source and that should be mentioned with it.
- Use eco-friendly products for the project.

### **Mode of presentation/submission of the Project:**

At the end of the stipulated term, each learner will present the research work in the Project File to the External and Internal examiner. The questions should be asked from the Research Work/ Project File of the learner. The Internal Examiner should ensure that the study submitted by the learner is his/her own original work. In case of any doubt, authenticity should be checked and verified.

**II. Revise the covered syllabus.**

**III. Do map work in separate folder, maps provided in your class of all the chapters.**

**Note: This project report is a part of internal assessment.**

## SUBJECT::INFORMATICS PRACTICES

1. Write command to display all the records from table student.
2. Distinguish between Delete and Drop command.
3. Write command to show structure of a table.
4. Write command to create a database.
5. Write command to create a table.
6. Write command to show all tables in a database.
7. Write code to add a primary key to an attribute of a table.
8. What are relational operators? Give some code examples to show use of relational operators.
9. What are logical operators? Give some code examples to show use of logical operators.
10. Write query to display student records having exactly 5 letters in their names.
11. What is the use of following string functions?  
a) Concat()    b) Length()    c) TRIM()    d) CHAR()
12. Write a query to display current date on your system.
13. Write a query to extract month part from date.
14. Write sql command to compute the average of the given data.
15. What are constraints? Give examples.
16. Write sql commands for the following:

**TABLE1:STUDENT**

ADMISSION NO.	STUDENT_NAME	CLASS	SECTION	ROLL.NO.	ADDRESS
1234	Aditi Sharma	9	A	4	Dwarka
2605	Shreya Nagpal	10	D	7	Karolbagh
3712	Tanya Verma	11	C	21	Malviya Nagar
5612	Krish Gupta	12	B	15	Janakpuri
6523	Ankur Malik	11	E	40	Rohini
4031	Shivani Mehta	9	A	33	Hauz Khas
4032	Mohan Verma	10	D	32	Uttam Nagar

**TABLE2:SPORTS**

ADMISSION NO.	STUDENT_NAME	SPORT
2605	Shreya Nagpal	Basket Ball
6523	Ankur Malik	Tennis
4031	Shivani Mehta	Volley Ball

- i. Command for creating a database.
- ii. Command for using the database.
- iii. Command for creating a table.
- iv. Command for showing the structure of table.
- v. Command to show tables present in database.
- vi. Command for inserting data into a table.
- vii. Command to view the contents of the table.
- viii. Add primary key to admno.
- ix. Find the different sections in student table.

**17.** Write Sql Commands for the following on the basis of given table:



Roll_No	Student_Name	Stream	Percentage	Class
1	Ajay	Arts	99	XIIC
2	Bobby	Arts	95	XIIC
3	Kamlesh	Commerce	85	XII B
4	Mohan	Commerce	98	XII B
5	Eklavya	Science	78	XII A
6	Prince	Science	75	XIIA

- Select all the science stream students.
- Select all the arts stream students.
- Select all the commerce stream students.
- Select students having marks greater than 80
- List all students sorted by percentage in descending order.
- Select topper in every section of XII std.

18 .A departmental store MyStore is consider to maintain their inventory using SQL to store the data. As a database administrator John has decided that:

- Name of the database – mystore
- Name of the table – STORE
- The attributes of STORE are as follows:
  - ItemNo - numeric
  - ItemName – character of size 20
  - Scode - numeric
  - Quantity – numeric

Table : STORE

ItemNo	ItemName	Scode	Quantity
2005	Sharpener Classic	23	60
2003	Ball Pen 0.25	22	50
2002	Get Pen Premium	21	150
2006	Get Pen Classic	21	250
2001	Eraser Small	22	220
2004	Eraser Big	22	110
2009	Ball Pen 0.5	21	180

- Identify the attribute best suitable to be declared as a primary key,
- Show all the records of table STORE.

(iii) Insert the following data into the attributes ItemNo, ItemName and SCode respectively in the given table STORE.

ItemNo = 2010, ItemName = "Note Book" and Scode = 25

(iv) John want to remove the table STORE from the database MyStore.

Which command will he use from the following:

- a)DELETE FROM store;
- b)DROP TABLE store;
- c)DROP DATABASE mystore;
- d)DELETE store FROM mystore;

(v)Now John wants to display the structure of the table STORE, i.e, name of the attributes and their respective data types that he has used in the table. Write the query to display the same.

19. Give the output of the following SQL commands on the basis of the table Movie:

No	Title	Type	Rating	Stars	Qty	Price
1	Gone with the wind	Drama	G	Gable	4	100
2	Friday the 13th	Horror	R	Jason	2	120
3.	Top Gun	Drama	PG	Cruise	7	125
4	Splash	Comedy	PG13	Hanks	3	115
5	Independence day	Drama	R	Turner	3	80
6	Risky Business	Comedy	R	Cruise	2	NULL
7	Cocoon	Scifi	PG	Ameche	2	85

- a) SELECT MAX(Price) FROM Movie WHERE QTY>4;
- b) SELECT SUM(Price \* Qty) FROM Movie WHERE Type='Drama';
- c) SELECT AVG(Price) FROM Movie WHERE PRICE <100;
- d) SELECT COUNT(DISTINCT Type) FROM Movie;
- e) SELECT \* FROM Movie where Type like 'D%';

20. Write SQL commands for the following table Supplier:

Scode	Pname	Supname	Qty	City	Price
-------	-------	---------	-----	------	-------

101	Coffee	Nestle	200	Kolkata	55.00
102	Biscuit	Hide & Seek	100	Delhi	10.00
103	Jam	Kissan	110	kolkata	25.00
104	Maggi	Nestle	150	Mumbai	10.00
105	Chocolate	Cadbury	170	Delhi	25.00
106	Sauce	Maggi	56	Mumbai	55.00
107	Cake	Britannia	72	Delhi	10.00

- a) To display the names of products , whose Pname starts with 'B' in ascending order of Price .
- b) To display supplier code , product name and city of the products whose quantity is less than 120.
- c) To increase the price of Chocolate by Rs. 35.
- d) To count distinct City in the table supplier.
- e) To insert a new row in the table supplier.  
'110', 'Fanta', 'Cocacola', 120, 'Delhi', 40.00

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