

BCM SCHOOL CHANDIGARH ROAD

(A SENIOR SECONDARY SCHOOL OF BCM FOUNDATION AFFILIATED TO CBSE, NEW DELHI)

SUMMER HOLIDAYS HOMEWORK CLASS IX

SOCIAL SCIENCE

ART INTEGRATION PROJECT:

Write in about 150 words about the historical background of Punjab and Odisha

Also paste the pictures of historical places and monuments of both the states and give their brief description (at least 5)

LAST GROUP Roll Numbers: First 4 roll number will make file other 3 will make PPT and will send to the subject teacher .

SOCIAL STUDIES PROJECT:

1. Collect information about different disasters and paste relevant pictures
2. Locate disaster prone areas on world map and on political map of India.
3. Search out mitigation techniques followed to reduce their impact
4. Write a short report on any climatic disaster happened in India in recent times.

Group 1 FLOODS

Group 2 FLOODS

Group 3 EARTHQUAKES

Group 4 EARTHQUAKES

Group 5 CYCLONE

Group 6 CYCLONE

REVISE THOROUGHLY

LESSON 1, 2, 3 Geography

LESSON 2 Economics

LESSON 2, 3 Political Science

MATHS

1. Are square roots of all + ve integers irrational? If not, give example of square root of a number that is rational number.
2. Simplify.
 $[5 \{8^{1/3} + 27^{1/3}\}^3]^{1/4}$
3. Find any two irrational numbers between $\sqrt{2}$ and $\sqrt{3}$.
4. Prove that $(x^{-a-b})^{a+b} (x^{b-c})^{b+c} (x^{c-a})^{c+a} = 1$
5. Find the value of x.
 $(81)^{5/x} = 243$
6. Simplify the following.
 $\sqrt[3]{2} \times \sqrt[3]{32}$
7. Express the following in the form p/q.
a) 0.383838..... + 1.272727.....
b) 5.3474747.....
8. If $x = 5$, $y = 2$, find the value of
 $(x^y + y^x)^{-1}$

9. If $x = 3 + 2\sqrt{2}$, Check whether $x + \frac{1}{x}$ is rational or irrational?
10. Find the value of a and b if

$$\frac{6-4\sqrt{2}}{6+4\sqrt{2}} = a + b\sqrt{2}$$
11. Which is greater?
 $(1/2)^{1/2}$ or $(1/3)^{1/3}$
12. If $x + \frac{1}{x} = 3$, find the value of $x^2 + (1/x^2)$
13. Find the value of m if $x+4$ is a factor of the polynomial $x^2 + 3x + m$.
14. Check whether $p+1$ is factor of $p^{101} - 1$ or not.
15. Simplify.
 $(x+1)^3 - (x-1)^3$
16. Factorize
 $x^4 - y^4$
17. If $x+2y = 8$ and $xy = 8$, find the value of $x^3 + 8y^3$.
18. If $a+b+c = 7$, $ab+bc+ca=20$, find the value of $a^2 + b^2 + c^2$.
19. If $f(x) = x^4 - 2x^3 + 3x^2 - ax + b$ is divided by $x-1$ and $x+1$, it leaves remainders 5 and 19 respectively. Find a and b.
20. If both $x - 4$ and $x - \frac{1}{4}$ are factors of $ax^2 + 5x + b$, show that $a = b$.
21. If $f(x) = x^2 - 5x + 7$, evaluate $f(2) - f(-1) + f(1/3)$.
22. What is zero of zero polynomial?
23. If $\frac{x}{y} + \frac{y}{x} = -1$ where $x, y \neq 0$, find the value of $x^3 - y^3$.
24. Without actually calculating the cubes find the value of
 $(42)^3 - (24)^3 - (18)^3$
25. Find the zeroes/zero of the polynomial.
 $(x - 2)^2 - (x + 2)^2$

PROJECT FOR CLASS IX (MATHS)

Developing your understanding of other cultures, or 'cultural awareness', lets you have more meaningful interactions with those around you. To know about Orissa and Punjab, project based task is being provided in which students are instructed

*To collect information of first five most populated districts of both the states and represent this data in form of bar graphs (one for Punjab and other for Orissa).

* To collect information of first five districts (area wise) and represent this information in form of pie chart (one for Punjab and other for Orissa).

* Project should be presentable, neat and clean, information should be correct.

NOTE: Complete all the lab activities in Lab Manual.

PDF of all the activities will be shared in your class groups.

Revise covered syllabus thoroughly.

SCIENCE

1. **CBSE PROJECT:** Make a comparative study of climatic conditions and vegetation of Punjab and Odisha)

- (a) Collage
- b) Scrap book
- c) PPT (minimum slides 15)
- d) Chart

(The students will make project as per their group distributed Roll number wise)

PHYSICS

Note: solve assignment in fair note copy

1-A car moving in a straight road .In this example what is relation between distance and displacement

2-Following is an example of which type of motion

- a. Freely falling Object
- b. A ball rolling down smooth inclined plane
- c. Motion of a bus in crowded area
- d. motion of artificial satellite
- e. A boy sitting in a merry- go round is
- f. An athlete moving in a circular track
- g. Second hand of watch

3-In uniform circular motion, the speed remain_____ and _____ changes

4-Give example when

- (a) Acceleration is positive
- (b) Acceleration is negative
- (c) Acceleration is zero

5-Why uniform circular motion is said to be accelerated motion?

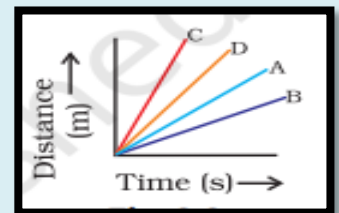
6-Give an example in which acceleration is (i) in direction of motion (ii) against the direction of motion.

7- Give an example in which acceleration is constant but velocity is zero.

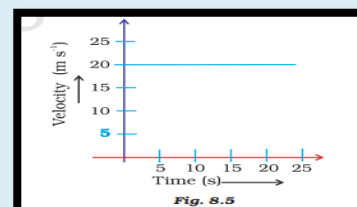
8- Four cars A, B, C and D are moving on a levelled road. Their distance versus time graphs is shown in Fig.

8.2. Choose the correct statement (a) Car A is faster than car D. (b) Car B is the slowest.

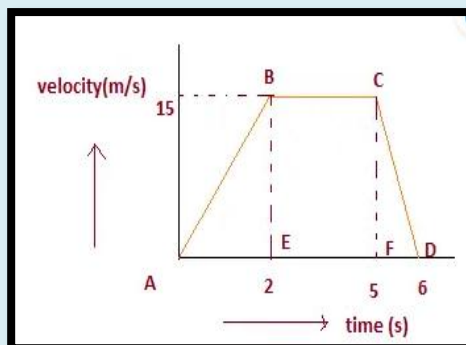
(c) Car D is faster than car C. (d) Car C is the slowest



9- The velocity-time graph (Fig. 8.5) shows the motion of a cyclist. Find (i) its acceleration (ii) its velocity and (iii) the distance covered by the cyclist in 15 seconds.



- 10- Study the following velocity -time graph and calculate (a) acceleration from (i) A to B (ii) B to C (iii) C to D (b) Calculate area covered under (i)AB (ii)BC (iii)CD



- 11- Two stones are thrown vertically upwards simultaneously with their initial velocities u_1 and u_2 respectively. Prove that the heights reached by them would be in the ratio of $u_1^2 : u_2^2$.
- 12- **Assertion** : Displacement of an object may be zero even if the distance covered by it is not zero.
Reason : Displacement is the shortest distance between the initial and final position
- 13- **Assertion** : Motion with uniform velocity is always along a straight line path.
Reason : In uniform velocity, speed is the magnitude of the velocity and is equal to the instantaneous velocity.
- 14- A ball is thrown upwards and it goes to the height of 100 m and comes down
 a) What is the net displacement?
 b) What is the net distance?
- 15- A bullet hits a Sandbox with a velocity of 20 m/s and penetrates it up to a distance of 6 cm.
 Find the deceleration of the bullet in the sandbox.

CHEMISTRY

Learn and write 1 to 20 elements, their atomic numbers, name, symbols and valency

BIOLOGY

- 1) Complete lab manual
- 2) Solve the below ASSIGNMENT

OBJECTIVE QUESTIONS

1. Which of the following is made into a crystal?
 (a) Bacterium (b) amoeba (c) virus (d) sperm
2. A cell will swell up if
 (a) The concentration of water molecules in the cell is higher than the concentration of water molecules in surrounding medium.
 (b) The concentration of water molecules in surrounding medium is higher than water molecules concentration in the cell.
 (c) The concentration of water molecules is same in the cell and in the surrounding medium.
 (d) Concentration of water molecules does not matter.

3. Chromosomes are made up of
(a) DNA (b) protein (c) DNA and protein (c) RNA
4. Which of these is not related to endoplasmic reticulum?
(a) It behaves as transport channel for proteins between nucleus and cytoplasm.
(b) It transports materials between various regions in cytoplasm.
(c) It can be the site of energy generation.
(d) It can be the site for some biochemical activities of the cell.
5. Plasmolysis in a plant cell is defined as
(a) Breakdown of plasma membrane in hypotonic solution.
(b) Shrinkage of cytoplasm in hypertonic solution.
(c) Shrinkage of nucleoplasm.
(d) None of them.
6. Which of the following is covered by a single membrane?
(a) Mitochondria (b) vacuole (c) lysosomes (d) plastid
7. Which organelle plays a crucial role in detoxifying many poisons and drugs in a cell?
(a) Golgi apparatus (b) lysosomes (c) SER (d) vacuole
8. The undefined nuclear region of prokaryotes are known as
(a) Nucleus (b) nucleolus (c) nucleic acid (d) nucleoid
9. The only cell organelle seen in prokaryotic cell is
(a) Mitochondria (b) ribosomes (c) plastids (d) lysosomes
10. Kitchen of the cell is
(a) Mitochondria (b) ER (c) chloroplast (d) Golgi apparatus

ASSERTION- REASON TYPE QUESTIONS

1. Assertion- An animal cell swells up when present in hypotonic solution.
Reason- More water molecules enter the cell than they leave.
2. Assertion- Mitochondria are called the power houses of the cell.
Reason- Mitochondria produce cellular energy in the form of ATP.
3. ASSERTION- Plasma membrane is selectively permeable.
Reason- Plasma membrane allows all molecules to pass through it easily.
4. Assertion- Ribosomes are the only cytoplasmic organelles found in both eukaryotic and prokaryotic cells.
Reason- Ribosomes are the protein factories of the cell.
5. Assertion- Plant cell wall lacks selective permeability.
Reason- It allows free passage of dissolved materials through it.
6. Assertion- Mitochondria are known as power houses of the cell.
Reason- Mitochondria produce cellular energy in the form of ATP.
7. Assertion- Meiosis is called reduction division.
Reason- It halves the chromosome number in the daughter cells.
8. Assertion- Mitosis is a means of multiplication in unicellular organisms.
Reason- Mitosis in the multicellular organisms brings about growth and repair.

Case Study

Mitochondria are found in all aerobic eukaryotic cells and lack in prokaryotes, anaerobic protozoans and some cells of mammals. They are usually sausage shaped, but may be spherical, oval, cylindrical, filamentous or even branched. They are commonly called “Power house” or “Storage Batteries” of the cell.

Plastids are other cytoplasmic organelles found in the plant cells and certain protists but are absent in animal cells. They are called the “Kitchen of the cells”.

Carefully read the paragraph and based on the related studied concepts, answer the questions given below:

1. Which cell organelles have a double membrane?
2. What is the main function of mitochondria of the cells?
3. Which is the main pigment present in green plastids?
4. What are green plastids known as?
5. Which plastids are known as storage plastids?

PUNJABI

1. 20 ਪ੍ਰੋਜੈਕਟਿਸ ਬਾਰੇ ਤੁਸੀਂ ਕੀ ਜਾਣਦੇ ਹੋ? ਇਸ ਬਾਰੇ ਆਪਣੇ ਵਿਚਾਰ 150 ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖੋ।

2. ਹੇਠ-ਲਿਖੇ ਵਿਸ਼ਿਆਂ ਵਿੱਚੋਂ ਕਿਸੇ ਇਕ ਵਿਸ਼ੇ 'ਤੇ ਭਾਸ਼ਣ ਤਿਆਰ ਕਰੋ।

ਮਾਂ ਬੋਲੀ ਪੰਜਾਬੀ, ਉੱਦਮ ਅੱਗੇ ਲੱਛਮੀ ਪੱਖੇ ਅੱਗੇ ਪੌਣ, ਦੌਲਤ ਦੀ ਦੌੜ ਵਿੱਚ ਅੰਨ੍ਹਾਂ ਇਨਸਾਨ, ਦਿਸ਼ਾਹੀਣ ਨੌਜਵਾਨ ਪੀੜ੍ਹੀ।

3. ਦੋ ਕਾਰਜਸ਼ੀਲਾਂ

ਨੋਟ - ਕਾਰਜਸ਼ੀਲਾਂ ਜਮਾਤ ਦੇ ਗਰੁੱਪ ਵਿੱਚ ਸਾਂਝੀਆਂ ਕੀਤੀਆਂ ਜਾਣਗੀਆਂ।

ਪੰਜਾਬੀ ਪ੍ਰੋਜੈਕਟ ਜਮਾਤ 9ਵੀਂ

ਵਿਸ਼ਾ-ਇਤਿਹਾਸਕ ਸਥਾਨ ਅਤੇ ਪਾਣੀ ਦੇ ਸੋਮੇ

- 1 ਪੰਜਾਬ ਅਤੇ ਉੜੀਸਾ ਦੇ ਇਤਿਹਾਸਕ ਸਥਾਨਾਂ ਦੀ ਤੁਲਨਾ ਕਰਦੇ ppt ਤਿਆਰ ਕਰੋ।
- 2 ਪੰਜਾਬ ਅਤੇ ਉੜੀਸਾ ਦੇ ਇਤਿਹਾਸਕ ਸਥਾਨਾਂ ਦਾ ਵਰਨਣ (ਆਰਟੀਕਲ 150 ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖੋ)
- 3 ਪੰਜਾਬ ਅਤੇ ਉੜੀਸਾ ਇਤਿਹਾਸਿਕ ਸਥਾਨਾਂ ਦੇ ਚਿੱਤਰ ਲਗਾ ਕੇ ਕੋਲਾਜ਼ ਤਿਆਰ ਕਰੋ।
- 4 ਉੜੀਸਾ ਅਤੇ ਪੰਜਾਬ ਦੇ ਪਾਣੀ ਦੇ ਸੋਮਿਆਂ ਦੀ ਪੀ ਪੀ ਟੀ ਤਿਆਰ ਕਰੋ।
- 5 ਪਾਣੀ ਦੇ ਸੋਮਿਆਂ ਦੇ ਨਾਮ ਲਿਖ ਕੇ ਇੱਕ ਚਾਰਟ ਤਿਆਰ ਕਰੋ।

HINDI

ग्रीष्मकालीन गृह कार्य

1. कबीर का पहला पद पढ़कर उसमें से प्राप्त सन्देश को अपने शब्दों में लिखिए।
2. 'दो बैलों की कथा' कहानी में से हीरा और मोती की चारित्रिक विशेषताएं लिखिए।
3. 'दो बैलों की कथा' कहानी को पढ़ते हुए नैतिक मूल्यों की सूची तैयार कीजिए जिन्हें आप अपने जीवन में धारण करना चाहते हैं।
4. 'पर्वतीय स्थल की यात्रा' पर एक अनुच्छेद लिखें।
5. पढाई छोडकर घर बैठे भाई को समझाते हुए पत्र लिखिए कि पढना क्यों जरूरी है। पत्र ऐसा हो कि उसमें नई उमंग का संचार हो सके।
6. अनुप्रास, यमक, उपमा और रूपक अलंकारों के पांच- पांच उदाहरण लिखें।
7. अधि, उप, सम, प्र, पुनर्, चिर, सत्, स्वयं – उपसर्ग लगाकर दो-दो शब्द बनाएँ।
8. आई, इक, ओना, अक, आर, एरा, उक, दार – प्रत्यय लगाकर दो-दो शब्द बनाएँ।
9. किन्हीं दो विषयों पर शिक्षाप्रद लघु-कथाएँ लिखें।
10. पंजाब और उड़ीसा के तुलनात्मक अध्ययन पर परियोजना कार्य (केवल हिंदी विषय के लिए चयनित विद्यार्थियों के लिए)

परियोजना: पंजाब और उड़ीसा का तुलनात्मक अध्ययन (Group no-2)

विषय- पंजाब और उड़ीसा की संस्कृति

1. पंजाब और उड़ीसा के पर्यटन और धार्मिक स्थलों पर एक पीपीटी बनाएं।
2. पंजाब और उड़ीसा के धार्मिक और पर्यटन स्थलों का कोलाज बनाएं।
3. पंजाब और उड़ीसा के व्यंजनों का वर्णन 150 शब्दों में उनके चित्र चिपका कर करें।
4. पंजाब और उड़ीसा के त्योहारों की सचित्र प्रस्तुति 150 शब्दों में करें।
5. पंजाब और उड़ीसा के परिधानों (वस्त्र) के चित्र चिपकाते हुए 150 शब्दों में वर्णन करें।
6. पंजाब और उड़ीसा के नृत्यों का वर्णन सचित्र प्रस्तुति के साथ 150 शब्दों में करें।

(नोट- उपरोक्त कार्यों को फाइल में सूचीबद्ध करें)

ENGLISH

GENERAL INSTRUCTIONS

Holiday Homework must be done in a very neat and presentable manner.

- Homework will be assessed on the basis of, creativity, presentation and completion of all the questions & indexing of work.
- Avoid cutting and overwriting.
- Creativity and Originality of work will be appreciated.

ART INTEGRATED PROJECT

Note: This project is for Group I i.e. R.no 1 to 7

(i)The entire project, has to be compiled in one Project file

(ii) The cover of Project file must comprise of-

- a. School's name:
- b. CBSE Art integrated project
- c. Name of student:
- d. Class/Section:
- e. Session: 2023-24

(iii) The first page of the Project file – Index,

(iv) The Second page-Acknowledgment,

(V) Bibliography

Work, as directed, the holiday homework is a part of internal assessment as per CBSE

A. Project: Comparative Study of Punjab and Odisha

1. Make a collage of cuisines of Punjab and Odisha
2. Describe dance forms of both the states (in 40 -50 words) paste pictures of the same.
3. Write about traditional attires and costumes of both the states (in 40 -50 words) paste pictures as well.
4. Describe tourists attractions of both the states with pictorial presentation.

B. Read at least one title from the following written by Sudha Murty:

- How I Taught My Grandmother To Read:
- Three Thousand Stitches, Ordinary People, Extraordinary Lives
- Something Happened On the Way to Heaven: 20 Inspiring Real-Life Stories

Write review of the book you read in about 120-150 words.

- C. The students are directed to read newspapers and magazines daily and update themselves with the Current affairs.
- D. Create your own diary in which you will write daily about one of your praiseworthy acts which you will do like helping your mother, helping physically disabled people or any virtuous act. (100-120 Words) Write at least 10 diary entry.

