Gurukul Montessori School
Holiday Homework Class XI 2023-24
Science

Instructions: Do All holiday homeworks in a separate copy of each subject.

SUBJECT: ENGLISH CORE

(NOTES MAKING AND SUMMARY)............ (Do in the Fair register of English)
Q1. Choose any 3 comprehension passages from E-practice book and do notes making and summary. (Follow and stick to the format and the rules taught in the class.)
Q2. Read the newspaper daily and cut samples of the following in the fair register of English underlining it with the holiday homework:
a. 3 Reports
b. 3 Articles (ON CORONAVIRUS)
 c. 3 Posters (on fight coronavirus)
 d. 5 Classified advertisements.
Q.3. Write a letter to the Editor of a national daily highlighting the neglect of our national monuments and how these are being damaged in the present day world
Q.4. Write an article on the topic-'How Google controls the life of an average person?' 150-200 words.
Q5. Learn and revise all the syllabus of PERIODIC TEST-I.

COMPUTER SCIENCE

Q1- What do you understand by "truth value' and 'truth function? How are these related?
Q2- What do you understand by 'logical function? What is its alternative name? Give examples for logical functions.
Q3- What is meant by tautology and fallacy? Prove that 1+ Y is a tautology and 0.Y is a fallacy.
Q4- What is a truth table? What is its significance?
Q5- What are the basic postulates of boolean algebra?
Q6- What does duality principle state? What is its usage in boolean algebra?
Q7- State the distributive laws of boolean algebra. How do they differ from the distributive laws of ordinary algebra?
Q8- Prove the complementarity law of boolean algebra with the help of a truth table.
Q9- Give the truth table proof for distributive law of boolean algebra.
Q10- Give algebraic proof of absorption law of boolean algebra.
Q11- What are DeMorgan's theorems? Prove algebraically the DeMorgan's theorem.
Q12- Which Boolean Law/theorem do you use to determine complement of a Boolean expression?
Q13- Are dual and complement of a Boolean expression the same?
Q14- Are dual and complement of a Boolean expression related?
Q15- Draw a truth table of 2 input NAND and 3 input NOR GATE

HINDI
1   प्रदत्त विषयों पर निबन्ध लिखिए –

क. पहला सुख निरोगी काया

ख. बाल मजदूरी: एक अभिशाप

ग. सर्वशिक्षा अभियान

2   कबीर ने नियम और धर्म का पालन करने वाले लोगों की किन कमियों की ओर संकेत किया है?
3   अज्ञानी गुरूओं की शरण में जाने पर शिष्यों की क्या गति होती है?

4 निम्नलिखित विषयों पर एक-एक अनुच्छेद लिखिए

क. समाचार पत्र   ख. रेडियो   ग. टेलीविजन

घ. सिनेमा   ड. इंटरनेट

PHYSICS

Note : Do these questions in separate thin copy.

1. The number of significant figures in 0.06900 is… … ..
2. The sum of the numbers 436.32, 227.2 and 0.301 in appropriate significant figures is… … …
3. The mass and volume of a body are 4.237 g and 2.5 cm^3, respectively. The density of the material of the body in correct significant figures is… …
4. The numbers 2.745 and 2.735 on rounding off to 3 significant figures will give … … .
5. The length breadth and thickness of a rectangular sheet of metal are 4.234 m,1.005 m and 2.01 cm respectively. Give the area and volume of the sheet to correct significant figures.
6. The mass of a box measured by a grocer's balance is 2.3 kg. Two gold pieces of masses 20.15 g and 20.17 g are added to the box. What is (a) the total mass of the box (b) the difference in the masses of the pieces to correct significant figures ?
7. Round off the following numbers as indicated:
i) 18.35 upto 3 digits   ii) 143.45 upto 4 digits iii)18967 upto3 digits   iv) 12.653 upto 3 digits
v)248337 upto 3 digitsvi)321.135 upto 5 digits vii)101.55 x10^6 upto 4 digits viii) 31.325 x 10^{-5} upto 4 digits
8. Solve the following and express the result to an appropriate number of significant figures:
i)Add 62g,4.33 g and 17.456 g.
ii)Subtract 63.54 kg from 187.2 kkg
iii) 75.5 x125.5 x 0.51
iv) $2.1\underline{3 \times 24.78\ 458.2}$
v)$2.51 \times 10^{-4} \times 1.81 \times 10^7\ \overline{0.4463}$
9. Each side for a cube is measured to be 7.203 m. What are the total surface area and the volume of the cube to appropriate significant figures?
10. The length and the radius of a cylinder measured with slide calipers are found to be 4.54 cm and 1.75 cm respectively. Calculate the volume of the cylinder.
11. 5.74 g of a substance occupies 1.2 cm^3. Express its density keeping significant figures in view.
12. Subtract 2.5 x10^4 from 3.9 × 10^5 with due regard to significant figures.
13. The displacement of a progressive wave is represented by y = A sin ($\omega t - k x$), where x is distance and t is time. Write the dimensional formula of (i) ω and (ii) k.
14. A new system of units is proposed in which unit of mass is $\alpha\ kg$, unit of length β m and unit of time γ s. How much will 5 J measure in this new system?
15. A new unit of length is chosen such that the speed of light in vacuum is unity. What is the distance between the sun and the Earth in terms of the new unit of light takes 8 min and 20 s to cover this distance
16. A calorie is a unit of heat or energy and it equals about 4.2 J where 1 J=1 kg m^2 s^{-2}. Suppose we employ a system of units in which the unit of mass equals α kg, the unit of length equals β m, the unit of time is γ s. Show that a calorie has a magnitude 4.2 $\alpha^{-1}\beta^{-2}\gamma^2$ in terms of the new units.

17. Consider a simple pendulum. The period of oscillation of the simple pendulum depends on its length 'I ' and acceleration due to gravity 'g'. Derive the expression for its time period of oscillation by the method of dimensions.
18. The velocity 'v' of water waves depends on the wave length "\' density of water 'p' and the acceleration due to gravity 'g'. Deduce by the method of dimensions the relationship between these quantities.

MATHEMATICS

1. Do exercise 1.1, 1.2, 1.3 from from NCERT.
2. Do exercise 3A, 3B and 3C from R.S. Agarwal.

Note:- Make a separate thin copy for H.HW.

YOGA

1. Do minimum 30 Minute Exercise Daily
2. Do meditation Daily
3. Do 15 Asana Daily
4. Write Down and learn SuryaNamaskar steps with Mantra
5. Write Down Meaning, Definition , History and importance of Yoga.

CHEMISTRY

1) Do all the NCERT questions of chapter 1
2) Do all the examples of NCERT Book of Chapter 1
3) Write importance of chemistry in different sectors on chart paper

OR
4) Draw modern periodic table on chart paper.

BIOLOGY

1) Prepare an investigatory project on zoological park specifying name of animal , it's feeding habits,diet chart and their habitation.
2) Visit a veterinary clinic and prepare a record of blood count of any 5 type of animals
3) Prepare a model of any one human organ system

English:

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it with the holiday homework:

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and how these are being damaged in the present day world

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Business Studies:

(All work has to be done in homework copy)

Write a short note on history of trade and commerce.

Differentiate between Business, Profession and Employment.

Define business and give its characteristic features.

Accountancy:

Holiday Homework of Accountancy

*Solve all MCQs of meaning and objective of Accounting

*Solve one numerical question per day of Accounting Equation.

Economics:
Write and learn chapter number 1 and 2 of Microeconomics

Hindi:
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क. पहला सुख निरोगी काया

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Physical Education:
1. Do minimum 30 Minute Exercise Daily
2. Do meditation Daily
3. Do 15 Asana Daily
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Computer Science:
Q1- What do you understand by "truth value' and 'truth function? How are these related?

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Gurukul Montessori School
Holiday Homework
Class XI-D
Humanities
2023-24

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Hindi

1. प्रदत्त विषय पर फीचर लिखिए - क. विज्ञापनों की लुभावनी दुनिया ख. बालश्रमिकों की समस्या ग. नशाखोरी की बढ़ती प्रवृति

2. संचार से आप क्या समझते हैं? संचार के तत्वों प्रकार विशेशताएँ व कार्य पर प्रकाश डालिए ।

3. पत्रकारिता के प्रमुख प्रकार लिखिए?

4. समाचार के तत्व कौन-कौन से हैं?

5. आत्मपरिचय दिन जल्दी-जल्दी ढलता है तथा भक्तिन पाठ की पुनरावृति कीजिए? www 6. Art integrated hindi project (कला समेकित परियोजना) तैयार कीजिए

Economics

Write the question-answers of NCERT of chapter 1 and 2 of Microeconomics in fair notebook.

Computer science

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table of 2 input NAND and 3 input NAND**.**

History

All the students are required to do the NCERT questions and answersof chapter-1 (Writing and city life) in fair notebook.

Geography

Draw a colourful figure on a drawing sheet or on a chart depicting the "Branches and Sister Disciplines of Geography".

Note- use methods of art integration.

Physical Education

Yoga

1. Do minimum 30 Minute Exercise Daily

2. Do meditation Daily

3. Do 15 Asana Daily 4. Write Down and learn Surya Namaskar stepswith Mantra

6. Write Down Meaning, Definition, History and importance of Yoga.