KĀSIGA SCHOOL

DEHRADUN

Holiday Homework Summer Break 2020

HOLIDAY HOMEWORK GRADE 11 (COMMERCE)

ENGLISH

Time away from the classroom is often the greatest gift for project planning.

Holiday Homework Class 11&12

1. **Complete all the assignments for the topics covered so far in the notebook.**
2. **Critique one of the following movies in about 200-250 words. Prepare to deliver the same as an integral part of your Speaking Assessment that carries 10marks.**
   The Sound of Music, Inception, Gravity, Interstellar, Life of Pi, The Mysterious Island, Hugo, Hook.

General guidelines on how to critique a movie:

- Choose a movie.
- Specify the issues you are going to discuss and analyze in your paper.
- Watch the movie two-three times: first–to get a general idea of the film; second time–to pay attention to the points that come into your sphere of interest and/or to note the details you weren't able to notice the first time.

- Concentrate on specific movie characters.
- See if the way the characters dress, talk, act, or look corresponds with the image they should be projecting towards the viewer.
- Remember that the better the characters are developed, the more character-driven the story is.
- Consider that the right motivation of the characters makes the audience believe the story and its development; moreover, it helps to understand the real motives, which should be understandable to the viewers.

- Decide whether the plot is predictable.
- Define whether some actions were unpredictable; if they were, then they provided you with some food for thought to make assumptions and express your views considering an unexpected turn of events or simply shocked you.
- Remember that the structure encompasses 3 acts: introducing the main characters, mounting tension through the story (lead up to the climax of the story), and bringing the movie to an end.
- See if the plot corresponds to characters' motivations.
- Mind that before the ending there should be a culmination of the story when the tension reaches the highest point.

- Remember that good dialogues should not be protracted as they are to sound natural.
- See if there is a logical development of the conversation.

1. If $\sin\theta + \cos\theta = m$, show that

$\cos^6\theta + \sin^6\theta = 4 - 3(m^2 - 1)^2/4$, where $m^2 \leq 2$.

2. Find the value of $\cos(31\pi/3)$.

3. Find the principal solution of the equation $\sin x = 1/2$.

4. Find the general solutions of the following equations:

(i) $\sin 2x = \sqrt{3}/2$

(ii) $\cos 3x = 1/2$

5. Decide among the following sets, which are subsets of which:
$A = \{x: x$ satisfies $x^2 - 8x + 12 = 0\}$, $B = \{2,4,6\}$, $C = \{2,4,6,8,\ldots\}$, $D = \{6\}$

6. Let $A = \{1, 2, 4, 5\}$ $B = \{2, 3, 5, 6\}$ $C = \{4, 5, 6, 7\}$. Verify the following identities:
(i) $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$

(ii) $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$

7. In a school, there are 20 teachers who teach mathematics or physics. Of these, 12 teach mathematics, and 4 teach physics and mathematics. How many teach physics?

8. Express the given complex number into standard form: $(1 + 2i)^{-3}$

9. If $z_1 = (2 - i)$, $z_2 = (-2 + i)$, find

$$(i)\, \mathrm{Re}\left(\frac{z_1 z_2}{\bar{z_1}}\right)$$

$$(ii)\, \mathrm{Im}\left(\frac{1}{z_1 \bar{z_1}}\right)$$

10. Express $\sin \pi/5 + i(1 - \cos \pi/5)$ in polar form.

11. If $\sin A = 1/2$, $\cos B = \sqrt{3}/2$, where $\pi/2 < A < \pi$ and $0 < B < \pi/2$, find the following:
(i) $\tan(A + B)$ (ii) $\tan(A - B)$.

Prove the following identities:

12. $\sqrt{[(1 - \cos 2x)/(1 + \cos 2x)]} = \tan x$.

13. $\cos 2x / (1 + \sin 2x) = \tan(\pi/4 - x)$.

14. A survey shows that 76% of the Indians like oranges, whereas 62% like bananas. What percentage of the Indians like both oranges and bananas?

15. Find the real values of x and y, if

(i) $(x + iy)(2 - 3i) = 4 + i$

(ii) $(3x - 2i\,y)(2 + i)^2 = 10(1 + i)$.

ECONOMICS

Developing Projects in Economics

Make Project file on any one of the given topics:

(It should be handwritten of approx. 25-30 pages which includes, using - pictures, diagram, newspaper articles or mind maps and relevant information)

Guidelines for Project Work in Economics

The students may be encouraged to develop projects, as per the suggested project guidelines. Case studies of a few organisations / outlets may also be encouraged. Under this the students will do only ONE comprehensive project using concepts from both part A and part B.

Some of the examples of the projects are as follows (they are not mandatory but suggestive):

(i)   **Economic global effect due to coronavirus pandemic.**
(ii)   Changing consumer awareness amongst households.
(iii)   Dissemination of price information for growers and its impact on consumers.
(iv)   Study of a cooperative institution: milk cooperatives, marketing cooperatives, etc.
(v)   Case studies on public private partnership, outsourcing and outward Foreign Direct Investment.
(vi)   Global warming.
(vii)   Designing eco-friendly projects applicable in school such as paper and water recycle.
(viii) A report on demographic structure of your neighborhood.

The idea behind introducing this unit is to enable the students to develop the ways and means by which a project can be developed using the skills learned in the course. This includes all the steps involved in designing a project starting from choosing a title, exploring the information relating to the title, collection of primary and secondary data, analysing the data, presentation of the project and using various statistical tools and their interpretation and conclusion.

HISTORY

SUMMER HOLIDAY HOMEWORK - CLASS XI

HISTORY PROJECT- EGYPTIAN CIVILISATION

1. Make a PowerPoint presentation on **Egyptian Civilisation**. The presentation should cover all aspects of the Civilisation:

- Sources
- Politics
- Important rulers
- Economy
- Society
- Treatment of women
- Treatment of slaves
- Religion
- Architecture
- Education
- Downfall

2. Discuss the similarities and differences between the Egyptian and Mesopotamian Civilisation. Also, discuss how did these civilizations influence each other.

POLITICAL SCIENCE

PROJECT WORK:

Make a project and research on ONE of the following topics:

- Voters behavior and electoral reforms required in the electoral system in India
- Gender inequality and women participation in politics.

Your project should:

1. Be made in a proper file
2. Be neatly done
3. Include pictures
4. Have an introduction
5. Be creative
6. Be sent to mail in PDF form
7. Kept safe for further submission in person

Your project should include:

1. Originality
2. Acknowledgment
3. Contents
5. Conclusion
6. Bibliography

COMPUTER SCIENCE

Topic: Python Programming

Q1. 'Python is an interpreted high level language'. What does it mean to you?

Q2. What is the difference between interactive mode and script mode in Python?

Q3. What does a cross platform language mean?

Q4. What is the difference between a keyword and an identifier?

Q5. How many types of strings are supported in Python?

Q6. What factors guide the choice of identifiers in program?

Q7. What is the error in following Python program with one statement? print ("My name is ", name) Suggest a solution.

Q8. Write a program to obtain temperature in Celsius and convert it into Fahrenheit using formula

F = C x 9 / 5 + 32.

Q9.What will be the output of the following code? x, y = 2, 6 x, y = y, x + 2 print(x,y)

Q10. Predict the output : F = 2 S = 3 T = F * S print(F,S,T) F = F + S + T T = S * F print(F,S,T)

Q11. Find the output of the given code: Name = "Komal"

Age = 18 print ("Your name & age are", Name + Age)

Q12. Write a program to accept radius from the user and print its area.

Q13. Write a program that asks for your height in centimeters and then convert your height to feet and inches.

Q14. Write a program to read details like name, class, age of a student and then print the details firstly in same line and then in separate lines. Make sure to have break lines in these two different types of prints.

Q15. What are data types? What are Python's built in core data types?

PHYSICAL EDUCATION

1. Write notes on **Physical Fitness, Wellness & Lifestyle**

• Meaning & Importance of Physical Fitness, Wellness & Lifestyle

• Components of physical fitness and Wellness

• Components of Health related fitness

2. **Yoga**

• Meaning & Importance of Yoga

• Elements of Yoga

• Introduction - Asanas, Pranayam, Meditation & Yogic Kriyas

• Yoga for concentration & related Asanas (Sukhasana; Tadasana; Padmasana&

Shashankasana, Naukasana, Vrikshasana (Tree pose), Garudasana (Eagle pose)

• Relaxation Techniques for improving concentration – Yog-nidra