

(Wed) 6/5/20, CL-X, EVS

CH- 6Topic (Biodiversity)

Home Assignment....

- 1) What do you mean by biodiversity?
- 2) What are the three types of biodiversity?
- 3) Why is biodiversity important?
- 4) Does biodiversity have value?
- 5) What happens when we lose biodiversity?

.....(To be continued next class.....)

Class 10

Economics

Ch-10 public revenue:

Q1: What is a public revenue?

Q2: What is a tax revenue?

Q3: What is a non tax revenue?

Q4: What are the features of tax revenue?

Q5: What are the non tax sources of revenue?

बड़े घर की बेटी

" हाथी मरा भी तो नौ लाख का ।वहाँ इतना घी तो नित्य नाइ कहार खा जाते है।"

क) वक्ता और स्रोता का परिचय दे .

उत्तर - उपर्युक्त कथन की वक्ता आनन्दी है और स्रोता लालबिहारी सिंह है।

आनन्दी एक छोटी सी रियासत के ताल्लुकेदार भूपसिंह की चौथी बेटी है । वह उच्च कुल की की है । आनन्दी का बचपन बहुत सुखमय था वह एक समझदार लड़की है इसलिए उसके दयालु हृदयता और उच्च कोटि की सोच के कारण बिगड़ता हुआ काम व बना लेती है ।

लालबिहारी सिंह बेनीमाधव सिंह का चोट बेटा है।वह स्वस्थ और आकर्षक व्यक्तित्व वाला है। वह उज्जड स्वभाव का है । लेकिन अपने बड़े भाई श्री कंठ सिंह का बहुत इज्जत करता है ।उसके मन मे स्त्रियों के लिये आदर नहीं है ।इसलिये वह अपनी भाभी आनन्दी से उलझ जाता है ।

ख) आनन्दी और लालबिहारी की तकरार किस बात पर शुरू हुई ?

उत्तर - एक दिन आनन्दी ने लालबिहारी के दाल में घी नहीं डाली।क्योंकि घर मे घी कम था ,जो था उसे आनन्दी ने पहले ही मांस में डाल दिया था । इस बात पर लालबिहारी ने गुस्से में बोला कि अभी परसो ही घी आया था ,इतनी जल्दी समाप्त हो गया । और आनन्दी ने जबाब दिया कि पाव भर तो घी था जो मांस में डाल दिया ।बस इसी बात पर तकरार शुरू हो गई ।

ग) वक्ता की बात पर स्रोता की क्या प्रतिक्रिया हुई ?

उत्तर - वक्ता आनन्दी द्वारा कहे गए उपर्युक्त कथन को सुन कर लालबिहारी जल उठा ।उसने गुस्से ।के आकर खाने की थाली उलट दी और आनन्दी को मैके का ताना देने लगा।उन दोनों के बीच झगड़ा इतना बढ़ गया कि उसने आनन्दी को खड़ाऊ फेंककर मारी, जिसे आनन्दी ने अपने हाथ से रोक लिया यदि वह खड़ाऊ को हाथ से नहीं रोकती तो उसका सिर फट जाता ।

घ) शीर्षक की सार्थकता स्पष्ट करें।

उत्तर - प्रस्तुत कहानी " बड़े घर की बेटी " के माध्यम से प्रेमचंद जी ने पाश्चात्य सभ्यता के प्रभाव से समाज को दूषित होने से बचाने के लिये प्रयास किया है । कहानी का मुख्य कथानक आनन्दी के चारो ओर घूमता है आनन्दी के अपमान के कारण ही दोनों भाइयों के बीच द्वेष उत्पन्न होता है । लेकिन आनन्दी अपनी सूझ- बूझ से दोनो भाइयों में प्रेम जगती है ।इस प्रकार एक बड़े घर की बेटी होने का प्रमाण देती है और अपने परिवार को टूटने से बचाने के लिए अपने अपमान का घूट पी कर राह जाती है । बड़े घर का तात्पर्य केवल धनी होना ही नहीं है , बल्कि उसके सद्गुण और संस्कारों से है ।अतः शीर्षक पूर्णतया सार्थक है ।

CLASS-X

SUBJECT – GEOGRAPHY

CHAPTER-AGRICULTURE II(Food Crop)

ASSESSMENT-9

Food Crops

Crops of India are divided into broad two categories- food crop and cash crop. Food crops are grown primarily for human consumption. Food crops include cereals such as rice, wheat, millets and pulses etc.

Rice (Kharif Crop)

The most important food crop in India is rice. It is the staple food for the majority of the people of India. It is a tropical as well as sub-tropical crop. It is a versatile crop and can be grown in different parts of India.

Favourable Geographical Conditions

Soils- Rice can be grown on a variety of soils. Deep fertile clayey, friable loams are ideal for the cultivation of rice.

Temperature- Rice requires an average temperature of 24° C with a range of 16° C to 32 °C. It needs plenty of sunshine.

Rainfall- The average rainfall is required is about 150 cm to 200 cm. It requires plenty of water, particularly during the showing period and early growth period.

Land- Rice grows best in the plains because it needs flat land. It is also grown on terraced slopes in the hills up.

Methods of Cultivation

Dibbling Method-

In this method, seeds are dropped at regular intervals in the furrows made by the farmers with the help of a plough or dibber.



Broadcasting Method

This method involves sowing the seeds by sprinkling them all over the field by hand. Less wastage of seeds occurs in this method.

Drilling Method

While using the plough, seeds are dropped through a bamboo shaft attached to it, in the furrows made by the plough in a straight line. This method, though saving wastage of seeds, is very time consuming.



Transplantation Method

In this method, seeds are first sown in nurseries after soaking them in water for 24 hours. After 4 weeks when seedlings are about 20 cm, they are uprooted and planted in the flooded fields. There is less wastage of seeds as in broadcasting.

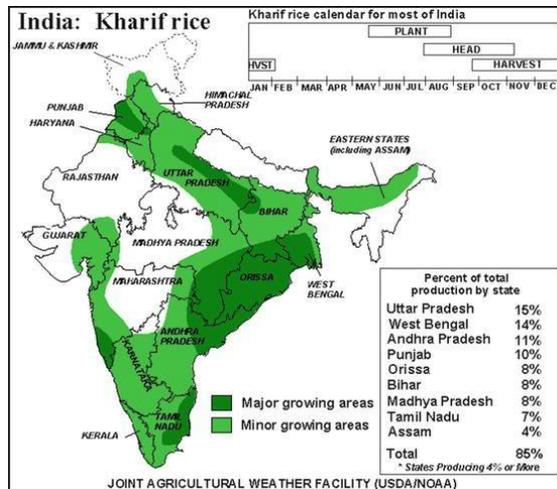
Japanese Method of Cultivation

This method includes the use of less, but good quality seed, transplanting the seedlings in rows to make weeding and fertilizing easy. This method ensures three times higher yields.

Problems of rice cultivation

- Rice yield per hectare is still low in our country.
- Farmers do not get a suitable price for their crop as middlemen buy it at a cheap rate and sell it at a higher price later.
- Proper storage of rice is not available.
- Diseases damage the rice crop and can reduce yield.

Distribution



- Lower and middle Ganga plains- in the region important states are West Bengal, Uttar Pradesh, Punjab, and Bihar.
- Brahmaputra valley- Assam
- Parts of Peninsular Plateau especially Tamil Nadu, beside it Andhra Pradesh, Kerala.
- Coastal region- Odisha, coastal plain.

Wheat(Rabi Crop)

Wheat is the most important food grain in India and it is the staple food of millions of Indians, particularly in the north-west parts of the country.

Favourable geographic conditions

Soil- Wheat grows the best in well-drained, fertile, friable alluvial soil of clayey composition. It is mostly grown in Indo-Gangetic plains. It can be grown in black soil also.

Climate

Temperature-Wheat requires a cool climate with moderate rainfall. It needs an average temperature of 10°C-15°C at the time of sowing, but higher temperatures are required at the time of harvesting.

Rainfall- Wheat needs 50-100cm rainfall during the growing season. In areas of less than 50cm rainfall irrigation is necessary. Frost is harmful for this crop. A little rainfall is required at the time of ripening. That is why farmers welcome the westerly disturbances in North India.

Methods of cultivation

Wheat is a Rabi crop, thus the field is prepared by end of November and crops are harvested in March. Seeds are sown by broad casting, dibbling and drilling.

Harvesting-



- The wheat crop is harvested by cutting the plants with a stick close to the ground.
- The rushing is the next process and involves the separation of the grain from the spike.
- The next process is milling and it is the process of harvesting.

Problems-

- The continuous cropping can break down the fertility of soil.
- Excessively high or low temperatures and droughts are harmful to wheat.

States-



Uttar Pradesh is the largest producer of wheat. Wheat is grown in almost every part of the state but the western part of Uttar Pradesh is more suitable because of its favourable climate.

Other states in order of production are Punjab, Haryana, Madhya Pradesh, Rajasthan, Gujarat and Maharashtra.

Pulses

A pulse is the seed of a leguminous crop. Pulses are also food grain. These are called dal and they form an important part of Indian diet. Gram (chana), urad, moong, masur and ahar are the principal pulses. They have great nutritive value.

Gram

Favourable geographic conditions-

- **Soil-** It is best grown in loamy soil.
- **Temperature-** This crop prefers a mild, cool and comparatively dry climate with 20°C-25°C temperature.
- **Rainfall-** It needs low to moderate rainfall of 50-100cm.

Methods of cultivation –

It is sown between September and November and harvested between February and April. It is mostly sown in rows.

Uses

- It is used as dal, bason(flour), roasted or cooked.
- Its green leaves are used as vegetables.
- Its grain is used to feed horses and cattle.

Areas- The most important producers of gram are Uttar Pradesh, Himachal Pradesh, Rajasthan and Haryana.

Maize

It is an inferior grain is used as both as food and fodder. It is tropical crop and also known as corn.



Favourable geographic conditions

Soil- It can be grown on a variety of soils like alluvial and red loams.

Temperature-Maize crop requires temperature between 21°C to 27°C. Frost is injurious to this crop.

Rainfall-It is chiefly a rain fed kharif crop. It requires 50-100cm rainfall.

Harvesting-This crop is harvested when the crop is nearly dry and does not contain more than 20% moisture.

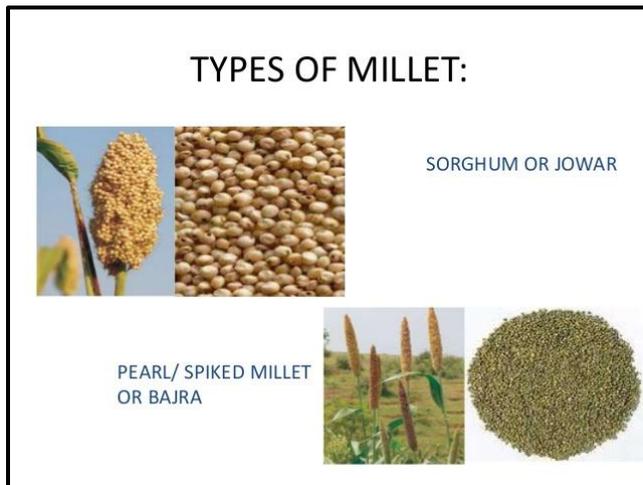
Uses-

- It is used as chapattis, roasted corns and popcorn.
- It makes excellent fodder for the cattle.

Distribution- Maize is produced in almost all parts of India.

Millets

They are also known as coarse cereals. They belong to the grass family. Jowar(Sorghum), bajra(Pearl Millet) and ragi(Finger Millet) are the three important types of millets grown in India.



Joar-

After wheat and rice, joar is the most popular food crop. It is both Kharif and Rabi crop.

Favourable geographic conditions-

Soil- Medium regur, clayey black soils are suitable.

Temperature- Jowar requires temperature ranging from 26°C-35°C.

Rainfall- It needs about 30-100cm rainfall, but excessive rain and drought conditions are harmful for the plant.

Areas- Leading jowar producing states are Maharashtra, Karnataka, Madhya Pradesh, Andhra Pradesh, and Rajasthan.

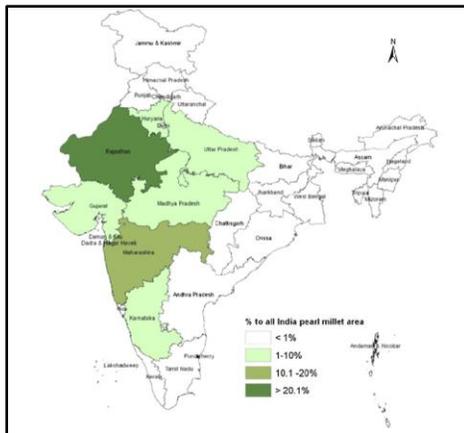
ii) **Bajra-** It is a Kharif crop.

Favourable Geographic Conditions-

Soil- Soil must be sandy and light. The regur or black soil is ideal for the cultivation of bajra.

Temperature-It must ranges between 25°C and 30°C for a healthy crop.

Rainfall- Bajra thrives best under conditions of low rainfall less than 100cm per annum.



Uses-It is used as food crop as well as fodder for cattle in drier parts of the country.

States- Rajasthan is the largest bajra producing state. Other states are U.P, Gujrat, Haryana, and Maharashtra.

Ragi

It is kharif crop and is also known as finger millet.

Favourable Geographic Conditions

Soil-It grows well in red, black, sandy and loamy soils.

Temperature-It grows well in places where the temperature is between 25°C-30°C.

Rainfall-Dry conditions where the annual rainfall does not exceed 90cm are ideal for growing ragi.

Area-Karnataka, Tamil Nadu, Uttarakhand, Maharashtra, Andhra Pradesh are the leading ragi producing states.

Assignment Questions-

1. States the two geographic requirements for the growth of rice in India.
2. Write about broadcasting and transplantation method of rice cultivation.
3. Write about two geographic requirements for wheat cultivation in India.
4. Which are the leading wheat producing states of India?
5. Which crops are known as millets? Write its uses.
6. Write the uses of pulses.
7. Millets are known as dry crops-give reasons.

Pranamita Majumder

DATE-06.05.2020 (WEDNESDAY)
CLASS-X
SUBJECT-PHYSICS
CHAPTER-3: MACHINE (1st CLASS)

MACHINE

Machines are the devices which make our work easier and faster.

- Machines help in gaining force. With the help of machines small force can be used to overcome a large force. e.g. screw jack can lift an object as heavy as car to change its tyres.
- Machine can change the direction of the force so that force can be applied in a more convenient manner. e.g. rope passing over a wheel make easy to lift water from well.
- Machine can change the point of application of the force in a convenient direction. e.g. force applied on bicycle pedal transfers into its wheels.
- Machines help in gaining speed. e.g. with the help of pair of scissors we can cut papers or clothes by giving small movement in handle and getting fast movement of blades.

Important terms related to simple machines

Effort : An effort is the force applied to a machine to do work.

Load : Load is the force that a machine exerts on a given body to be moved.

Fulcrum : A fixed point about which the machine can turn.

Mechanical advantage : The ratio of the load to the effort is called the mechanical advantage of the machine.

$$\text{M.A.} = \frac{\text{Load (L)}}{\text{Effort (E)}} \quad \text{or} \quad \text{M.A.} = \frac{\text{effort arm}}{\text{load arm}}$$

MA > 1 : If the effort needed by machines is less than the load. Machine works as force multiplier.

MA < 1 : If a machine needs an effort greater than the load. Machine gives gain in speed.

MA = 1 : If the effort needed is equal to the load. Machine is used to change the direction of effort as there is no gain in force or speed.

Velocity ratio : The ratio of the velocity of effort to the velocity of load is called the velocity ratio of machine.

$$\text{V.R.} = \frac{\text{velocity of effort}}{\text{velocity of load}} \quad \text{or} \quad \text{V.R.} = \frac{\text{displacement of effort}}{\text{displacement of load}}$$

Efficiency : Efficiency of a machine is the **ratio of work output to the work input**. It is denoted by η (eta).

$$\eta = \frac{W_{\text{output}}}{W_{\text{input}}}$$

Efficiency is usually expressed as a percentage, $\eta = \frac{W_{\text{output}}}{W_{\text{input}}} \times 100 \%$

Principle of a Machine

When energy is supplied to a machine by applying an effort, it does some useful work. The point at which energy is supplied to a machine by applying effort, is called the **effort point**. The point where energy is obtained by overcoming the load, is called the **load point**.

Input energy : **Work done at the effort point**
= Effort \times Displacement of the point of application of effort.

Output energy : **Work done at the load point**
= Load \times Displacement of the point of application of the load.

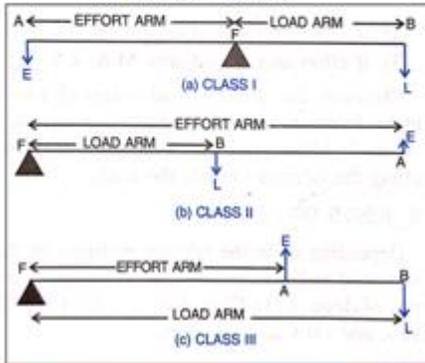
Ideal Machine : An ideal machine is that in which there is no loss of energy in any manner. The work output is equal to the work input.
i.e. the efficiency of an ideal machine = 100%

Real Machine : In real machine the output energy is always less than the input energy.
i.e. the efficiency of a real machine is always less than 100%

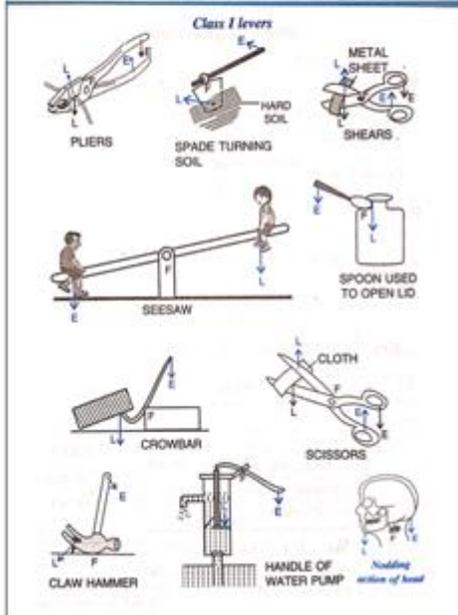
LEVERS

A lever is a rigid, straight (or bent) bar which is capable of turning about a fixed axis.

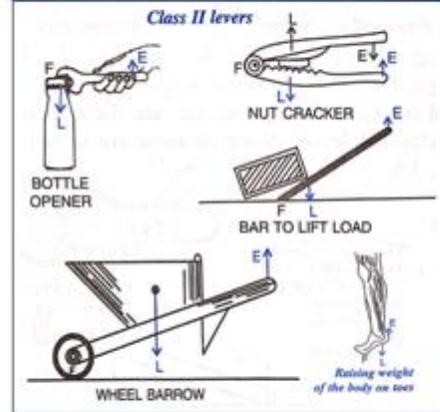
Levers and their kinds



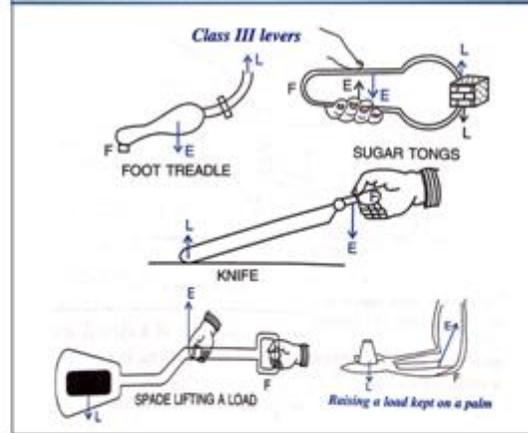
For class I levers, the mechanical advantage and velocity ratio can have any value either greater than 1, equal to 1 or less than 1.



The mechanical advantage and velocity ratio of class II levers are always more than 1.



The mechanical advantage and velocity ratio of class III levers are always less than 1.



ASSIGNMENT-9 CHAPTER-3: MACHINE (1ST CLASS) (F.M.-10)

Answer the following questions

(Question No-1 carries 1 mark, 2 carries 2 marks, 3 carries 3 marks, 4 carries 4 marks)

1. For speed multiplier M.A. is
2. Distinguish between ideal machine and actual machine.
3. Explain why scissors for cutting cloth may have blades longer than the handles, but shears for cutting metals have short blades and long handles? To which class of lever do these belong?
4. A lever of length 9 cm has its load arm 5 cm long and the effort arm is 9 cm long. (i) To which class does it belong? (ii) Draw diagram of the lever showing the position of fulcrum F and directions of both load L and effort E. (iii) What is the M.A. and V.R. if the efficiency is 100%? (iv) What will be the M.A. and V.R. if the efficiency becomes 75%?

Mathematics

Class-X

Measures of Central tendency

Date:-06.05.20 Assignment:-

Q1.

(a) Calculate the arithmetic mean of 5.7, 6.6, 7.2, 9.3, 6.2.

(b) The weights (in kg) of 8 new born babies are 3, 3.2, 3.4, 3.5, 4, 3.6, 4.1, 3.2. Find the mean weight of the babies.

Solution:

(a) Sum of 5 observations = $5.7 + 6.6 + 7.2 + 9.3 + 6.2 = 35.0$

$$\therefore \text{Mean} = \frac{35.0}{5} = 7$$

(b) Weights of 8 babies (in kg) are 3, 3.2, 3.4, 3.5, 4, 3.6, 4.1, 3.2

\therefore Total weights of 8 babies

$$= 3 + 3.2 + 3.4 + 3.5 + 4 + 3.6 + 4.1 + 3.2 = 28.0 \text{ kg}$$

$$\text{Mean weight} = \frac{\sum x_i}{n}$$

$$= \frac{28.0}{8} \text{ (Here } n = 8)$$

$$= 3.5 \text{ kg}$$

Q2.

(a) The mean of the numbers 6, y, 7, x, 14 is 8. Express y in terms of x.

(b) The mean of 9 variates is 11. If eight of them are 7, 12, 9, 14, 21, 3, 8 and 15 find the 9th variate.

Solution:

(a) Sum of numbers = $6 + y + 7 + x + 14$

$$= 27 + x + y \dots(i)$$

But mean of 5 numbers = 8

$$\therefore \text{Sum} = 8 \times 5 = 40 \dots(ii)$$

From (i) and (ii)

$$27 + x + y = 40$$

$$\Rightarrow x + y = 40 - 27 = 13$$

$$\therefore y = 13 - x$$

(b) Mean of 9 variates = 11

$$\therefore \text{Total sum} = 11 \times 9 = 99$$

But sum of 8 of these variates

$$= 7 + 12 + 9 + 14 + 21 + 3 + 8 + 15 = 89$$

$$\therefore \text{9th variate} = 99 - 89 = 10$$

Q3.

(a) The mean age of 33 students of a class is 13 years. If one girl leaves the class, the mean becomes $12\frac{15}{16}$ years. What is the age of the girl?

(b) In a class test, the mean of marks scored by a class of 40 students was calculated as 18.2. Later on, it was detected that marks of one student was wrongly copied as 21 instead of 29. Find the correct mean.

Solution:

(a) Mean age of 33 students = 13 years

Total age = $13 \times 33 = 429$ years

After leaving one girl, the mean of 32

$$\text{students} = 12\frac{15}{16} = \frac{207}{16} \text{ years.}$$

$$\begin{aligned} \therefore \text{Total age of 32 students} &= \frac{207}{16} \times 32 \\ &= 414 \text{ years} \end{aligned}$$

Hence, the age of the girl = $429 - 414$

$$= 15 \text{ years Ans.}$$

(b) Mean of marks obtained by 40 students = 18.2

$$\therefore \text{Total marks obtained by them} = 18.2 \times 40 = 728$$

Difference of marks copied wrongly = $29 - 21 = 8$

$$\therefore \text{Actual total marks} = 728 + 8 = 736$$

$$\text{New mean} = \frac{736}{40} = 18.4 \text{ Ans.}$$

Home Work-

Q1.

1	Category	A	B	C	D	E	F	G
	Wages in ₹ per day	50	60	70	80	90	100	110
	No. of workers	2	4	8	12	10	6	8

(i) Calculate the mean wage, correct to the nearest rupee.

(ii) If the number of workers in each category is doubled, what would be the new mean wage ?

2 If the mean of the following distribution is 7.5, find the missing frequency f :

Variate	5	6	7	8	9	10	11	12
Frequency	20	17	f	10	8	6	7	6

3 Find the value of the missing variate for the following distribution whose mean is 10:

Variate (x_i)	5	7	9	11	...	15	20
Frequency (f_i)	4	4	4	7	3	2	1

DREAMLAND SCHOOL
CLASS X
ENGLISH LANGUAGE
HOME ASSIGNMENT 9
ACADEMIC YEAR- 2020-21

DATE- 06.05.2020

- I. Write an essay in approximately 350-400 on the topic "Pandemic and modern education".
- II. Fill in the blanks with suitable words.
 1. Always be true ___ yourself.
 2. Do not go gentle ___ that good night!
 3. I dispense ___ your services immediately.
 4. He was born ___ humble parents.
 5. He was born ___ a rich family.
 6. Silkworms feed ___ mulberry trees.
 7. Oil is good ___ burns.
 8. The authorship of the book is wrongly ascribed ___ him.
 9. Cats are tenacious ___ life.
 10. Death is preferable ___ disgrace.
 11. He reverted ___ his former post.
 12. He is indebted ___ his friends ___ a large sum.
 13. Bribal is celebrated ___ his wits.
 14. The avaricious man greedy ___ gains.
 15. Long indulgence ___ vice impaired his once robust constitution.
 16. Industry is the key ___ success.
 17. Queen Elizabeth knew how to inspire her soldiers ___ hope.
 18. Adam assigned ___ every creature a name peculiar ___ its nature.
 19. Do not confide your secrets ___ everyone.
 20. He scoffed ___ the idea of revolution.