БПОУ ВО «Грязовецкий политехнический техникум»

Согласовано

Утверждаю
Директор БПОУ ВО «Грязовецкий политехнический техникум»
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ФОНД ОЦЕНОЧНЫХ СРЕДСТВ УЧЕБНОЙ ДИСЦИПЛИНЫ ОГСЭ.03 «Иностранный язык»

Специальность: 35.02.07 Механизация сельского хозяйства

Форма обучения – заочная

Грязовец
2018

ФОС учебной дисциплины разработан на основе Федерального государственного образовательного стандарта по специальности среднего профессионального образования 35.02.07 «Механизация сельского хозяйства».

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Рассмотрен
на заседании цикловой комиссии
общеобразовательных, общегуманитарных
и социально-экономических дисциплин
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по программе учебной дисциплины

Иностранный язык

основной профессиональной образовательной программы (ОПОП)

по специальности СПО

35.02.07 «Механизация сельского хозяйства» (заочное отделение)

1. Общие положения

Фонд оценочных средств (ФОС) предназначен для контроля и оценки образовательных достижений обучающихся, освоивших программу учебной дисциплины ОГСЭ.03 Иностранный язык

ФОС включает контрольные материалы для проведения промежуточной аттестации в форме зачёта дифференцированного зачета в 1 и 2 семестрах.

ФОС разработаны на основании положений:

ФГОС СПО специальности 35.02.07 Механизация сельского хозяйства,

основной профессиональной образовательной программы по специальности 35.02.07 Механизация сельского хозяйства;

программы учебной дисциплины ОГСЭ.3 Иностранный язык.

2. Перечень основных показателей оценки результатов, элементов практического опыта, знаний и умений, подлежащих текущему контролю и промежуточной аттестации

Код и наименование основных показателей оценки результатов (ОПОР)	Код и наименование элемента практического опыта	Код и наименование элемента умений	Код и наименование элемента знаний
1	2	3	4
ОК 1,3,4,6		У1. Общаться устно на иностранном языке на повседневные темы	З.1. Лексические единицы (1200-1400) З.2.Грамматический минимум, необходимый для устного общения
		У2. Общаться устно на иностранном языке на профессиональные темы	З.1. Лексические единицы (1200-1400) З.2.Грамматический минимум, необходимый для устного общения
		У3. Общаться письменно на иностранном языке на повседневные темы	З.1. Лексические единицы (1200-1400) З.2.Грамматический минимум, необходимый для письма
		У4. Общаться письменно на иностранном языке на профессиональные темы	З.1. Лексические единицы (1200-1400) З.2.Грамматический минимум, необходимый для письма
ОК 1,4,7,8,9		У5. Переводить (со словарём) иностранные тексты профессиональной направленности	З.1. Лексические единицы (1200-1400) З.2.Грамматический минимум, необходимый для перевода

ОК 6,7,8		У6. Совершенствовать самостоятельно устную и письменную речь	З1. Лексические единицы (1200-1400) З.2.Грамматический минимум, необходимый для перевода
		У7 Пополнять словарный запас	З1. Лексические единицы (1200-1400)

2. Общие компетенции

ОК 1. Понимать сущность и социальную значимость своей будущей профессии, проявлять к ней устойчивый интерес.

ОК 2. Организовывать собственную деятельность, выбирать типовые методы и способы выполнения профессиональных задач, оценивать их эффективность и качество.

ОК 3. Принимать решения в стандартных и нестандартных ситуациях и нести за них ответственность.

ОК 4. Осуществлять поиск и использование информации, необходимой для эффективного выполнения профессиональных задач, профессионального и личностного развития.

ОК 5. Использовать информационно-коммуникационные технологии в профессиональной деятельности.

ОК 6. Работать в коллективе и в команде, эффективно общаться с коллегами, руководством, потребителями.

ОК 7. Брать на себя ответственность за работу членов команды (подчиненных), за результат выполнения заданий.

ОК 8. Самостоятельно определять задачи профессионального и личностного развития, заниматься самообразованием, осознанно планировать повышение квалификации.

ОК 9. Ориентироваться в условиях частой смены технологий в профессиональной деятельности.

Тема 1 Введение в сельское хозяйство.

Пояснительная записка

Данный тест предназначен для проведения промежуточного контроля в форме дифференцированного зачёта за 1 курс обучения. При составлении теста использован лексический материал и грамматический, изучаемый в рамках данной темы. Тест представлен в пяти вариантах. Каждый вариант состоит из трех заданий. Все задания направлены на контроль усвоения лексического материала темы.

Задание № 1 - первого уровня сложности. Студенты должны найти правильное написание слова и дать его перевод. За каждый правильный ответ начисляется 1 балл, максимальное количество баллов за всё задание – 10.

Задание № 2 – второго уровня сложности. Необходимо правильно составить словосочетания и дать их перевод. Каждое составленное словосочетание оценивается в 2 балла, перевод ещё 2 балла. При наличии ошибок количество баллов может быть снижено. Максимальное количество баллов – 16.

Задание № 3 – третьего уровня сложности. Для его выполнения студенту необходимо применить не только знание лексического и грамматического материала, но и умение перевода. Студенту необходимо правильно вставить в предложение пропущенное словосочетание (2 балла), и грамматически правильно его перевести (3 балла). Максимальное количество баллов – 20.

В зависимости от количества баллов обучающиеся получают следующие оценки:

«отлично» - 41-46 баллов;

«хорошо» - 34 -40 баллов;

«удовлетворительно» - 27-33 балл;

«неудовлетворительно» - менее 27 баллов.

Introduction to Agriculture. Test

Variant I

I. Выберите правильное написание слова и переведите его (по 2 балла, макс. - 10 баллов.)

1. A. germination; B. garnineition; C. germenation.
2. A. control; B. controle; C. cantrole D. cantrol.
3. A. aplication; B. application; C. aplicaition; D. appliceition.

4. A. yelde; B. yeeld; C. yield; D. yielde.
5. A. affect; B. effect; C. afecte; D. effact.

II. Составьте словосочетания и переведите их (по 2+2 балла, макс.-16 баллов)

1. under
2. of
3. depends
4. hectare
5. on
6. conditions
7. most
8. per.

III. Вставьте подходящее по смыслу слово или словосочетание и переведите предложения. (по 2 +3 балла, максимальное – 20 баллов).

1. _____ is an important branch of economy.
2. The country has very _____ climate, soil and topography (рельеф) for farming.
3. Many foods are obtained from _____. They are meat, milk and eggs.
4. Cattle breeding is the most important branch of _____.

A. favourable
B. agriculture
C. farm animals
D. animal husbandry.

Introduction to Agriculture. Test

Variant II

I. Выберите правильное написание слова и переведите его (по 2 балла, макс. - 10 баллов.)

1. A. agriculture; B. agreculture; C. agrecalture; D. agricalture.
2. A. harvest; B. havest; C. harvist D. havist.
3. A. levestock; B. livestock; C. livstock; D. levestock.
4. A. njutrient; B. njutriant; C. nutrient; D. nutriant.
5. A. envaronement; B. invaronment; C. environment; D. invironmant..

II. Составьте словосочетания и переведите их (по 2+2 балла, макс.-16 баллов)

1. with
2. at
3. production
4. varies
5. in such
6. least
7. a way
8. crop

III. Вставьте подходящее по смыслу слово или словосочетание и переведите предложения. (по 2 +3 балла, максимальное – 20 баллов).

1. Without _____many important processes in plants do not take place.

2. More food is obtained by growing new crop _____.
3. _____ used by farmers accumulate (скапливается) in the soil and in plants and may become harmful for people.
4. _____ are highly important sources of food for man.

A.	fertilizers	C.	sunlight
B.	varieties	D.	farm animals.

Introduction to Agriculture. **Test**

Variant III

I. Выберите правильное написание слова и переведите его (по 2 балла, макс. - 10 баллов.)

1. A. fartilizer; B. fertelizer; C. fertileze; D. fertilizer.
2. A. emprove; B. empruve; C. improve; D. impruve.
3. A. maisture; B. moistare; C. moisture; D. moysture.
4. A. cultivation; B. caltiveition; C. cultivation; D. caltevation..
5. A. weate; B. wheet; C. weete; D. wheat.

II. Составьте словосочетания и переведите их (по 2+2 балла, макс.-16 баллов)

1. as not	5. to damage
2. highly	6. the
3. practices	7. cultural
4. same	8. developed

III. Вставьте подходящее по смыслу слово или словосочетание и переведите предложения. (по 2 +3 балла, максимальное – 20 баллов).

1. _____ are widely applied on the farm in order to increase crop yields.
2. Many crops grown by man are used in feeding _____.
3. At present agriculture is not so dependent on _____ as in the past.
4. The optimum temperature for _____ and growth varies with different kinds (вид) of crops.

A.	livestock	C.	intensive technologies
B.	germination	D.	the environment.

Introduction to Agriculture. **Test**

Variant IV

I. Выберите правильное написание слова и переведите его (по 2 балла, макс. - 10 баллов.)

1. A. feild; B. fielde; C. field; D. feilde.
2. A. desease; B. disease; C. deseese; D. diseese.
3. A. manure; B. meinure; C. manjur; D. manjure.
4. A. raquire; B. requir; C. require; D. require.
5. A. encreese; B. encrease; C. inceese; D. increase.

II. Составьте словосочетания и переведите их (по 2+2 балла, макс.-16 баллов)

1. instance	5. animal
2. least	6. husbandry
3. both	7. and
4. for	8. at

III. Вставьте подходящее по смыслу слово или словосочетание и переведите предложения. (по 2 +3 балла, максимальное – 20 баллов).

1. Agriculture and _____ are closely connected with each other.
2. Man cannot regulate the amount (количество) of _____ but he can prevent the loss of moisture from the soil.
3. In order to produce highest _____ crops should be provided with water.
4. _____ is the practice of growing and harvesting crops.

A. rainfall	C. environment
B. yield	D. crop production.

Introduction to Agriculture. **Test**

Variant V

I. Выберите правильное написание слова и переведите его (по 2 балла, макс. - 10 баллов.)

1. A. berley; B. barley; C. barlay; D. berlay.
2. A. reinfall; B. reinfoll; C. rainfall; D. rainfoll.
3. A. poultry; B. paultry; C. poultrie; D. paultre.
4. A. feivourable; B. feivorable; C. favorable; D. favourable.
5. A. divelopment; B. development; C. developmant; D. divalopment.

II. Составьте словосочетания и переведите их (по 2+2 балла, макс.-16 баллов)

1. yielding	5. with

2. order
3. cultural
4. high
6. practices
7. each other
8. in

III. Вставьте подходящее по смыслу слово или словосочетание и переведите предложения. (по 2 +3 балла, максимальное – 20 баллов).

1. _____ is a branch of agriculture including the breeding of farm animals and their use.
2. The use of _____ and other chemicals increase crop yields and animal products.
3. Crop yields and animal productivity depend on soil and _____ of the region in which they are grown.
4. Weeds can be controlled with special _____.

A. climatic conditions
B. animal husbandry
C. cultural practices
D. fertilizers

Эталон ответов

Вариант I

I.

1. **A**; прорастание
2. **A**; борьба, бороться
3. **B**; применение
4. **C**; урожай
5. **A**; влиять

II.

1. under conditions – при (в) … условиях
2. depends on – зависит от…
3. most of - большинство
4. per hectare – с гектара, на гектар

III.

1. **B**; Сельское хозяйство – важная отрасль экономики.
2. **A**; Страна имеет очень благоприятный климат, почву и рельеф для хозяйственной деятельности (фермерства)
3. **C**; Много пищи получают от хозяйственных животных. Это – мясо, молоко и яйца.
4. D; Разведение крупного рогатого скота – самая важная отрасль животноводства.

Вариант II

I.

1. **A**; сельское хозяйство
2. **A**; убирать

II.

1. at least – по крайней мере
2. crop production – растениеводство

3. **B**; скот
4. **C**; питательное вещество
5. **C**; окружающая среда

3. in such a way – таким образом
4. varies with – зависит от

III.

1. **C**; Без солнечного света многие важные процессы в растениях не происходят.
2. **B**; Больше пищи получают выращивая новые сорта культур.
3. **A**; Удобрения, используемые фермерами, скапливаются в почве и растениях и могут стать вредными для людей.
4. **D**; С/х животные – очень важный источник пищи для человека.

Вариант III

I.

1. **D**; удобрение
2. **C**; улучшать
3. **C**; влага
4. **A**; обработка
5. **D**; пшеница

II.

1. as not to damage – чтобы не повредить
2. highly developed – высокоразвитый
3. cultural practices – агротехнические приемы
4. the same – тот же самый, один и тот же

III.

1. **C**; Интенсивные технологии широко применяются в хозяйстве, чтобы увеличит урожай культур.
2. **A**; Много культур, которые выращивает человек, используются для кормления скота.
3. **D**; В настоящее время сельское хозяйство не так зависимо от окружающей среды как в прошлом.
4. **B**; Оптимальная температура для прорастания и роста зависит от различных видов культур.

Вариант IV

I.

1. **C**; поле
2. **B**; болезнь
3. **A**; навоз
4. **C**; требовать
5. **D**; увеличивать

II.

1. for instance – например
2. at least – по крайней мере
3. animal husbandry - животноводство
4. both…and – как …так и

III.

1. **C**; Сельское хозяйство и окружающая среда тесно связаны друг с другом.
2. **A**; Человек не может регулировать количество осадков, но он может предотвратить потерю влаги из почвы.
3. **B**; Для того, чтобы произвести высокий урожай культуры должны быть обеспечены водой..
4. **D**; Растениеводство – деятельность (практика) по выращиванию и уборке культур.

Вариант V

I.

1. **B**; ячмень
2. **C**; осадки
3. **A**; домашняя птица
4. **D**; благоприятный
5. **B**; развитие

II.

1. high-yielding – высокоурожайный
2. cultural practices – агротехнические приемы
3. in order – чтобы, для того чтобы
4. with each other – друг с другом

III.

1. **B**; Животноводство – это отрасль сельского хозяйства. Включающая в себя разведение с/х животных и из использование.
2. **D**; Использование удобрений и других химических веществ увеличивает урожай культур и продукцию животноводства.
3. **A**; Урожайность культур и продуктивность животных зависят от почвы и климатических условий региона, в котором они выращиваются.
4. **C**; Сорняки можно контролировать при помощи специальных агротехнических приемов.

2 курс

Тема 2 Перевод профессионально-ориентированных текстов по специальности.

2.1 Дифференцированный зачёт

Пояснительная записка

Данная работа предназначена для проведения промежуточной аттестации на 2 курсе. При составлении контрольной работы использован грамматический и лексический материал, изучаемый в рамках данных тем.

Контрольная работа представлена в трех вариантах. Каждый вариант состоит из четырех заданий.

Задание № 1 – первого уровня сложности. Оно направлено на контроль усвоения лексического материала тем. Студентам необходимо сопоставить русские и английские эквиваленты слов. За каждый правильный ответ начисляется 1 балл. Максимальное количество баллов за всё задание – 10.

Задание № 2 – второго уровня сложности. Оно направлено на контроль понимания технического текста. Студентам необходимо найти в прочитанном тексте выражения и словосочетания, поставив их в начальную форму. За каждый правильный ответ начисляется 2 балла, максимальное количество баллов за всё задание – 20.

Задание № 3 – второго уровня сложности. Оно направлено на контроль общего понимания прочитанного технического текста, знания особенностей построения вопросительных предложений и умения отвечать на вопросы. За каждый правильный ответ начисляется 2 балла, максимальное количество баллов за всё задание – 10.

Задание № 4 – третьего уровня сложности. Оно направлено на контроль усвоения как грамматического, так и лексического материала, а также предметов специальности. Студентам необходимо выполнить письменный перевод технического текста по специальности, опираясь на изученные грамматические структуры и лексический материал. Максимальное количество баллов - 15. При наличии ошибок баллы вычитаются.

В зависимости от количества баллов обучающиеся получают следующие оценки:

«отлично» - 50 - 55 баллов;

«хорошо» - 44 - 49 баллов;

«удовлетворительно» - 37 - 43 балла;

«неудовлетворительно» - менее 37 баллов.

Вариант 1

I. Find the Russian equivalents in the right column.

1. to plough	A. вредный
2. mower	B. рядами
3. harmful	C. навоз
4. to fruit	D. стебель
5. rake	E. вредитель
6. manure	F. пахать
7. harrow	G. сенокосилка
8. in rows	H. плодоносить
9. pest	I. грабли
10. stalk	J. борона

II. Find the following word combinations in the text.

1. копать и рыхлить почву
2. современная сельскохозяйственная техника
3. электрический генератор
4. убирать созревший урожай
5. насос
6. дождевальная установка
7. вспаханная земля
8. способность впитывать воду
9. бункер для зерна
10. отдельное зернышко

III. Answer the questions.

1. What are agricultural machines used for?
2. What hand tools do you know?
3. What does tractor provide?
4. What does a plough consist of?
5. What are harrows used for?

IV. Translate the text “Implements for Growing Crops” (paragraphs 1-3)

Implements for Growing Crops

Agricultural machines are used to till soil and to plant, cultivate, and harvest crops. Since ancient times, when cultures first began cultivating plants, people have used tools to help them grow and harvest crops. They used pointed tools to dig and keep soil

loosened, and sharp, knife-like objects to harvest ripened crops. Modifications of these early implements led to the development of small hand tools that are still used in gardening, such as the spade, hoe, rake and trowel, and larger implements, such as ploughs and larger rakes that are drawn by humans, animals, or simple machines.

Modern machinery is used extensively in Western Europe, Australia, the United States, the Russian Federation and Canada.

Modern large agricultural implements, adapted to large-scale farming methods, are usually powered by diesel- or petrol-fuelled internal-combustion engines. The most important implement of modern agriculture is the tractor. It provides locomotion for many other implements and can furnish power, via its power shaft, for the operation of machines drawn behind the tractor. The power shafts of tractors can also be set up to drive belts that operate equipment such as feed grinders, pumps, and electric-power generators. Small implements, such as portable irrigators, may be powered by individual motors.

Many types of implements have been developed for the activities involved in growing crops. These activities include breaking ground, planting, weeding, fertilizing and combating pests.

Ground is broken by ploughs to prepare the seed-bed. A plough consists of a blade-like ploughshare that cuts under, then lifts, turns and pulverized the soil. Modern tractors ploughs are usually equipped with two or more ploughshares so that a wide area of ground can be broken at a single sweep. Harrows are used to smooth the ploughed land and sometimes to cover seeds and fertilizer with earth. The disk harrow, which has curved, sharp-edged disks, is used mainly to cut up crop residues before ploughing and bury weeds during seed-bed preparation. Rollers with V-shaped wheels break up clods of soil to improve the aeration of the soil and its capacity for taking in water.

Some cereal crops are still planted by broadcasting seeds – that is, by scattering the seeds over a wide area. Machines for broadcasting usually consist of a long seed-box mounted on wheels and equipped with an agitator to distribute the seeds. Broadcast seeds are not always covered by a uniform or sufficient depth of soil, so seeding is more often done with drills, which produce continuous furrows of uniform depth. Specialized implements called planters are necessary for sowing crops that are planted in rows, such as maize. Maize planters and other similar machines have a special feed wheel that picks up small quantities of grain or separate kernels and places them in the ground.

Вариант 2

I. Find the Russian equivalents in the right column.

1. kernel	A. колос
2. dust	B. битер
3. to loosen	C. зернышко
4. ear	D. собирать, рвать
5. hay	E. стойкий
6. culture	F. сено
7. beater	G. земледелие
8. resistant	H. очищать
9. to pick	I. разрыхлять
10. to clean	J. пыль

II. Find the following word combinations in the text.

1. непосредственно перед посевной
2. распределитель органических удобрений
3. уничтожение сорняков
4. прочная кора
5. в виде спрея, в виде гранул
6. уничтожение вредителей
7. струя горячего воздуха
8. поверхность почвы и растений
9. авиация, самолеты
10. севооборот

III. Answer the questions.

1. When are fertilizers distributed?
2. What does manure spreader look like?
3. What crops is a flame weeder used for?
4. What are insecticides used for?
5. What alternative forms of pest control do farmers use?

IV. Translate the text “Implements for fertilizing, weeding and combating pests” (paragraphs 1-2)

Implements for Fertilizing, Weeding and Combating Pests.

Fertilizers can be distributed during the winter or shortly before seeding time. Commercial fertilizers are commonly distributed, along with seeds, by drills and planters. Manure is distributed most efficiently by a manure spreader, which is a wagon equipped with a bottom conveyor to carry the fertilizer back to a beater attachment, which disintegrates it and then scatters it on the ground.

After crops have begun to grow, a cultivator is used to destroy weeds and loosen and aerate the soil. A flame weeder, which produces a hot-air blast, can be used to destroy weeds growing around crops< such as cotton, that have stems of tough bark. The weeds are vulnerable to the hot air, but the tough stems protect the crops from damage. Chemical herbicides applied in the form of a spray or as granules are used extensively for weed control.

Insecticides for pest control are applied to soil and crops in the form of granules, dust, or liquid sprays. A variety of mechanical spraying and dusting equipment is used to spread chemicals on crops and fields; the machinery may be self-powered, or drown and powered by a tractor. In areas where large crops of vegetables and grain are grown, aircraft are sometimes used to dust or spray pesticides.

Chemicals pesticides are used in nearly all farming operations undertaken in developed countries. However, increasing concern over the harmful effects that pesticides may have on the environment has led to the use of alternative forms of pest control. For example, farmers use crop rotation to prevent pests that feed on a certain crop. Also, certain pests are controlled by introducing an organism that damages or kills the pests, but leaves the crops unharmed. Finally, some crops are being genetically engineered to be more resistant to pests.

Вариант 3

I. Find the Russian equivalents in the right column.

1. petrol	A. убирать
2. to ripen	B. силосная яма
3. silo	C. ровный
4. damage	D. борозда
5. ploughshare	E. зреть, созревать
6. furrow	F. проволока
7. to harvest	G. лемех
8. wire	H. бензин
9. spoilage	I. повреждение, вред
10. smooth	J. порча

II. Find the following word combinations in the text.

1. плодоносящая верхушка
2. очищенное зерно
3. бункер для зерна
4. обрывать колосья от стеблей
5. очищать зерно от шелухи
6. уборка сена
7. тюк, кипа
8. корма устойчивые к порче
9. приспособление для сбора фруктов
10. снижать количество человеческого труда

III. Answer the questions.

1. What are cereal crops harvested by?
2. How does a combine harvester operate?
3. What is the first step in harvesting hay?
4. What machines are used for harvest fruits and vegetables?
5. Does use of agricultural machinery reduce the amount of human labour needed for growing crops?

IV. Translate the text “Implements for Harvesting Crops” (paragraphs 1,3)

Implements for Harvesting Crops.

Most cereal crops are harvested by using a combine – a machine that removes the fruiting heads, beats off the grain kernels, and cleans the grain as combine moves through the fields. The cleaned grain is accumulated in an attached grain tank.

Wheat and other cereal crops are harvested by a combine which, as it moves along the rows, picks the ears from the stalks and husks them. The ears are then transferred either to a sheller, which removes the kernels from the ear, or to a vehicle trailing behind the machine.

Hay harvesting usually requires several steps. First, the hay is cut close to the ground with a mower. After drying in the sun, most hay is baked. In baling, the pick up baler lifts the hay to a conveyor that carries it to a baling chamber, which compresses the hay into bales weighing up to 57 kg or more and ties each bale with heavy twine or wire. A machine called a field chopper cuts down green hay or field-cured hay for use as animal feed. After being cut down, the hay is stored in a silo and allowed to ferment; this type of animal feed is nutritious and resistant to spoilage.

Specialized machinery is also used to harvest large root crops such as potatoes and sugar beet and to harvest fruits and vegetables. Some mechanical fruit-pickers that are used to harvest tree fruits, such as plums, cherries, and apricots shake the fruit tree, causing the fruit to fall on to a raised catching frame that surrounds the tree. Nut crops can also be harvested in this manner.

Use of agricultural machinery substantially reduces the amount of human labour needed for growing crops. The average amount of labour required per hectare to produce and harvest corn, hay and cereal crops has fallen to less than a quarter of what was required only a few decades ago. There are also corn pickers, cotton pickers, tea pickers, tomato harvesters ets. Thus, at present nearly every branch of agronomy uses specialized harvesters.

2.2 Практическая работа по теме «Устройство автомобиля»

Пояснительная записка

Данная практическая работа предназначена для проведения текущего контроля по теме «Устройство автомобиля» и направлена на контроль усвоения лексического и грамматического материала по теме.

Система и критерии оценок результатов практической работы.

В зависимости от количества баллов обучающиеся получают следующие оценки:

«отлично» - 11 - 12 баллов;

«хорошо» - 9 - 10 баллов;

«удовлетворительно» - 7 - 8 баллов;

«неудовлетворительно» - менее 7 баллов.

Put together the beginning and the end of the sentences:

1.	The primary components of a car are …	A.	… in the carburetor.
2.	The power plant includes …	B.	… the rear-axle drive shafts.
3.	Air is mixed with the vapour of the petrol …	C.	… the battery-and-coil system.
4.	Modern carburetors are fitted with …	D.	… a hand wheel.
5.	The principal type of ignition now commonly used is …	E.	… to allow the water to pass through tubing with a large area, the outer surface of which can be cooled by the atmosphere.
6.	Electricity operates various automatic devices and accessories including …	F.	… the engine, the carburetor, ignition, lubrication and cooling systems and the starter motor.
7.	Radiators are used to …	G.	…the power plant, the power transmission, the running gear and the control system.
8.	The use of gear and clutches permit the engine …	H.	… windscreen wipers, directional signals, heating and air

conditioning, cigarette lighter, powered windows and audio equipment.

9. The differential delivers the power to each of the rear wheels through …
I. … a float-feed chamber and a mixing or spraying chamber.

10. The running gear of the car includes …
J. … the wheel-suspension system, the stabilizers and the wheels.

11. Steering is controlled by …
K. … a convex strip of material is forced against a concave steel brake drum.

12. The wheel brakes are generally of the internally expanding type in which …
L. … to work at a speed higher than that of the wheels and to work when the vehicle is at rest.

Key:

1	2	3	4	5	6	7	8	9	10	11	12
G	F	A	I	C	H	E	L	B	J	D	K

2.3 Тест по теме «Согласование времён».

Task: choose the right form of the verb in brackets.

1. At last I decided that Tom (come) at 7.

a) will come b) would come c) came

2. He said he (send) a telegram if he (non hear) from me.

a) would send; didn't hear b) sent; doesn't hear c) will send; won't hear

3. She told me everything because she (trust) me.

a) had trusted b) trusted c)would trust

4. Didn't you know that I (go) to Paris?

a) went b) will go c) had gone

5. Joy hoped that her mother (let) her go to the disco.

a) let b) will let c) would let

6. Didn’t you know that it (be) a very difficult task?

a) is b) was c) had been

7. Mary said that her husband (be) still in hospital and that she (go) to see him.

a) was; would go b) is; will go c) had been; goes

8. She knew they usually (have) supper at 7 p.m.

a) had b) have c) had had

9. We decided he (be) free and (be able) to see us.

a) is; will be able b) had been; had been able c) was; would be able

10. I didn’t know you (be fond) of music.

a) was fond b) are fond c) were fond

Система и критерии оценок результатов практической работы.

Keys:

№	Вариант 1
1	b
2	a
3	b
4	c
5	c
6	b
7	a
8	a
9	c
10	c

За каждое правильно выполненное задание ставится 1 балл.

Диапазон оценки в баллах	**Описание оценок**
9-10	**Отлично- «5»** - теоретическое содержание материала освоено полностью, без пробелов, необходимые практические навыки работы с освоенным материалом в основном сформированы, все предусмотренные программой обучения учебные задания выполнены, качество выполнения большинства из них оценено числом баллов, близким к максимальному.
7-8	**Хорошо-«4»** - теоретическое содержание материала освоено полностью, без пробелов, некоторые практические навыки работы с освоенным материалом

	сформированы недостаточно, все предусмотренные программой обучения учебные задания выполнены, качество выполнения ни одного из них не оценено минимальным числом баллов, некоторые виды заданий выполнены с ошибками.
5-6	**Удовлетворительно-«3»** - теоретическое содержание материала освоено частично, но пробелы не носят существенного характера, необходимые практические навыки работы с освоенным материалом в основном сформированы, большинство предусмотренных программой обучения учебных заданий выполнено, некоторые из выполненных заданий, содержат ошибки.
Менее 5	**неудовлетворительно-«2»** - теоретическое содержание материала освоено частично, необходимые практические навыки работы не сформированы, большинство предусмотренных программой обучения учебных заданий не выполнено, либо качество их выполнения оценено числом баллов, близким к минимальному; при дополнительной самостоятельной работе над материалом курса возможно повышение качества выполнения учебных заданий.

2.4 Тест по теме «Условные предложения».

Вариант 1

Task: ***choose the correct response for each of the sentences.***

1. If my grandfather were younger, He ___ so many things.
   a) wouldn't forget b) didn't forget
2. If I ___ more money, I would buy a new car.
   a) would have b) had
3. If she had an umbrella, she ___ wet.
   a) wouldn't get b) didn't get
4. If we ___ a car, we would get there in 30 minutes.
   a) would have b) had
5. I ___ more careful if I were you.
   a) would be b) were
6. If animals could talk, I wonder what they ___?
   a) said b) would say
7. If she ___ harder, she would make more money.
   a) will work b) worked
8. If he changed jobs, He ___ much happier.
   a) will be b) would be
9. If it wasn't raining, we ___ to the beach.
   a) would go b) will go
10. You wouldn't feel so tired if you ___ more.
    a) will sleep b) slept

Вариант 2

Task: ***choose the correct response for each of the sentences.***

1. If his nose were smaller, he ___ very handsome.
   a) would be b) was
2. I would come if I ___ a car.
   a) would have b) had
3. If she ___, she would tell him.
   a) knows b) knew
4. If his parents didn't give him money, he ___ so much.
   a) wouldn't go out b) didn't go out
5. If she ___ me, she would have told me.
   a) didn't believe b) wouldn't believe
6. He wouldn't say that if he ___ it.
   a) wouldn't mean b) didn't mean
7. I ___ on a trip around the world if I won the lottery.
   a) would go b) will go
8. I ___ that if I were you.
   a) will not do b) would not do
9. If these walls ___ thicker, we wouldn't hear the neighbours.
   a) would be b) were
10. If I were a millionaire, ___ a mansion.
    a) I'd buy b) I'm going to buy

Система и критерии оценок результатов практической работы.

Keys:

№	Вариант 1	Вариант 2
1	a	a
2	b	b
3	a	b
4	b	a
5	a	a
6	b	b
7	b	a
8	b	b
9	a	b
10	b	a

За каждое правильно выполненное задание ставится 1 балл.

Диапазон оценки в баллах	Описание оценок
9-10	**Отлично- «5»** - теоретическое содержание материала освоено полностью, без пробелов, необходимые практические навыки работы с освоенным материалом в основном сформированы, все предусмотренные программой обучения учебные задания выполнены, качество выполнения большинства из них оценено числом баллов, близким к максимальному.
7-8	**Хорошо-«4»** - теоретическое содержание материала освоено полностью, без пробелов, некоторые практические навыки работы с освоенным материалом сформированы недостаточно, все предусмотренные программой обучения учебные задания выполнены, качество выполнения ни одного из них не оценено минимальным числом баллов, некоторые виды заданий выполнены с ошибками.
5-6	**Удовлетворительно-«3»** - теоретическое содержание материала освоено частично, но пробелы не носят существенного характера, необходимые практические навыки работы с освоенным материалом в основном сформированы, большинство предусмотренных программой обучения учебных заданий выполнено, некоторые из выполненных заданий, содержат ошибки.
Менее 5	**неудовлетворительно-«2»** - теоретическое содержание материала освоено частично, необходимые практические навыки работы не сформированы, большинство предусмотренных программой обучения учебных заданий не выполнено, либо качество их выполнения оценено числом баллов, близким к минимальному; при дополнительной самостоятельной работе над материалом курса возможно повышение качества выполнения учебных заданий.

Тема 3 Формы делового общения

3.1 Практическое задание по теме «Написание резюме при устройстве на работу».

Проанализируйте образцы резюме на английском языке и, пользуясь конспектами в тетради, напишите своё резюме для устройства на работу по специальности.

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Objective	**Sales Manager**
Personal Details	Date of birth: 12 April 1973 Marital status: married Children: son, 10 years old
Summary of Qualifications	6 years experience as a Sales Manager. Provide sales, sales promotion, customers counselling, sales forecasting, new advertising strategies, sales increasing. Proficient with Windows, Microsoft office programs, and use of database programs.

Education	1990–1995 **Student** Kiev State University
Additional Education	1990–1991 **Course of French** Kiev school of foreign languages
Professional Experience	2006–present **Sales Manager** ABC Company, Kiev
	Recommended computerized bookkeeping and supervised all data entry, resulting in reduced bookkeeping time, detailed department reports, improved sales projections, and enhanced business, advertising and budget planning. **Accomplishments:** Organized special holiday sales promotion and recommended special holiday gift line, which increased sales by 35%.
	2000–2006 **Sales Manager** FDG Company, Kiev
	Handled sales of company products. Counseled customers on company products. Forecasted sales revenue, volumes, discounting and profit. **Accomplishments:** Increased number of customers by 20% in two years. Initiated new advertising strategies, which enhanced customer image of store and increased customer traffic. Recognized as one of company's top 10 salespeople each year since 1992.
	1996–2000 **Manager Assistant** JSM Company, Kiev
	Provided customer service via telephone. Ascertained order accuracy. Tracked orders. Cooperated in team.
Additional Skills	**Languages:** English – Intermediate Level German – Elementary Level
	Computer skills: Windows, Word for Windows, Excel, Outlook Express, Internet Explorer
	Driving Licence: Driving Licence Category B
References	References are available on request

Приложение

Тексты для чтения

Construction of an Automobile: Carburetion

Air is mixed with the vapour of the petrol in the carburrettor. To prevent the air and the carburetor from becoming too cold for successful evaporation of the fuel, the air for the carburetor is usually taken from a point close to a heated part of the engine. Modern carburetors are fitted with a so-called float-feed chamber and a mixing or spraying chamber. The first is a small chamber in which a small supply of petrol is maintained at a constant level. The petrol is pumped from the main tank to this chamber, the float rising as the petrol flows in until the desired level is reached, when the inlet closes. The carburetor is equipped with such devices as accelerating pumps and economizer valves, which automatically control the mixture ratio for efficient operation under varying conditions. Level-road driving at constant speed requires a lower ratio of petrol to air then that needed for climbing hills, for acceleration, pr for starting the engine in cold weather. When a mixture extremely rich in petrol is necessary, a valve known as the choke cuts down the air intake, permitting large quantities of unvaporized fuel to enter the cylinder.

2

Construction of an Automobile: Ignition

The mixture of air and petrol vapour delivered to the cylinder from the carburettor is compressed by the first upstroke of the piston. This heats the gas, and higher temperature and pressure facilitate ignition and quick combustion. The next operation is that of igniting the charge by a spark plug. One electrode is insulated by porcelain or mica; the other is grounded through the metal of the plug, and both form part of the secondary circuit of an induction system.

The principal type of ignition now commonly used is the battery-and-coil system/ the current from the battery flows through the coil and magnetizes the iron core. When this circuit is interrupted at the distributor points by the interrupter cam, a current is produced in the primary coil with the assistance of the condenser. This induces a high-voltage current in the secondary winding. This secondary high voltage is needed to cause the spark to jump the gap in the spark plug. The spark is directed to the proper cylinder by the distributor, which connects the secondary coil to the spark plugs in the several cylinders in their proper firing sequence. The interrupter cam and distributor are

driven from the same shaft, the number of breaking points on the interrupter cam being the same as the number of cylinders.

The electrical equipment controls the starting of the engine, its ignition system, and the lighting of the car. It consists of the battery, a starter and the necessary wiring. Electricity also operates various automatic devices and accessories, including windscreen wipers, directional signals, heating and air conditioning, cigarette lighters, powered windows and audio equipment.

3

Construction of an Automobile: The Engine

The greatest number of cars use piston engines. The four-cycle piston engine requires four strokes of the piston per cycle. The first downstroke draws in the petrol mixture. The first upstroke compresses it. The second downstroke – the power stroke – following the combustion of the fuel, supplies the power, and the second upstroke evacuates the burned gases. Intake and exhaust valves in the cylinder control the intake of fuel and the release of burned gases. At the end of the power stroke the pressure of the burned gases in the cylinder is 2.8 to 3.5 kg/sq cm. These gases escape with the sudden opening of the exhaust valve. They rush to a silencer (muffler), an enlarged section of piping containing expanding ducts and perforated plates through which the gases expand and are released into the atmosphere.

Greater smoothness of operation of the four-cycle engine were provided by the development of the four-cylinder engine, which supplies power from one or another of the cylinders on each stroke of the cycle. A further increase in power and smoothness is obtained in engine of 6,12, and 16 cylinders, which are arranged in either a straight line or two banks assembled in the form of a V.

4

Machine-tools: Shapers, Planers and Grinders

The shaper is used mainly to produce different flat surfaces. The tool slides against the stationary workpiece and cuts on one stroke, returns to its starting position, and then cuts the next stroke after a slight lateral displacement. In general, the shaper can make any surface having straight-line elements. It uses only one cutting-tool and relatively slow, because the return stroke is idle. That is why the shaper is seldom found on a mass production line. It is, however, valuable for tool production and for workshops where flexibility is important and relative slowness is unimportant.

The planer is the largest of the reciprocating machine tools. It differs from the shaper, which moves a tool past a fixed workpiece because the planer moves the workpiece to expose a new section to the tool. Like the shaper, the planer is intended to produce vertical, horizontal, or diagonal cuts. It is also possible to mount several tools at one time in any or all tool holders of a planer to execute multiple simultaneous cuts.

Grinders remove metal by a rotating abrasive wheel. The wheel is composed of many small grains of abrasive, bounded together, with each grain acting as a miniature cutting tool. The process gives very smooth and accurate finishes. Only a small amount of material is removed at each pass of the wheel, so grinding machines require fine wheel regulation. The pressure of the wheel against the workpiece is usually very light, so that grinding can be carried out on fragile materials that cannot be machined by other conventional devices.

5

Machine-tools: Milling, Drilling and Boring Machines

Machine-tools are used to shape metals and other materials. The material to be shaped is called the workpiece. Most machine-tools are now electrically driven.

Machine-tools with electrical drive are faster and more accurate than hand tools: they were an important element in the development of mass-production processes, as they allowed individual parts to be made in large numbers so as to be interchangeable.

In a milling machine the cutter is a circular device with a series of cutting edges on its circumference. The workpiece is held on a table that controls the feed against the cutter. The table has three possible movements: longitudinal, horizontal and vertical; in some cases it can also rotate. Milling machine are the most versatile of all machine tools. Flat or contoured surfaces may be machined with excellent finish and accuracy. Angles, slots, gear teeth and cuts can be made by using various shapes of cutters.

To drill a hole usually hole-making machine-tools are used. They can drill a hole according to some specification, they can enlarge it, or they can cut threads for a screw or to create an accurate size or a smooth finish of a hole.

Drilling machines are different in size and function, from portable drills to radial drilling machines, multispindle units, automatic production machines and deep-hole-drilling machines.

Boring is a process that enlarges holes previously drilled, usually with a rotating single-point cutter held on a boring bar and fed against a stationary workpiece.

6

Machine-tools: Lathe

Machine-tools are used to shape metals and other materials. The material to be shaped is called the workpiece. Most machine-tools are now electrically driven.

Machine-tools with electrical drive are faster and more accurate than hand tools: they were an important element in the development of mass-production processes, as they allowed individual parts to be made in large numbers so as to be interchangeable.

All machine-tools have facilities for holding both the workpiece and the tool, and for accurately controlling the movement of the cutting tool relative to the workpiece. Most machining operations generate large amounts of heat, and use cooling fluids (usually a mixture of water and oil) for cooling and lubrication.

Lathe is still the most important machine-tool. It produces parts of circular cross-section by turning the workpiece on its axis and cutting its surface with a sharp stationary tool. The tool may be moved sideways to produce a cylindrical part and moved towards the workpiece to control the depth of cut. Nowadays all lathes are power-driven by electric motors. That allows continuous rotation of the workpiece at a variety of speeds. The modern lathe is driven by means of a headstock supporting a hollow spindle on accurate bearings and carrying either a chuck or a faceplate, to which the workpiece is clamped. The movement of the tool, both along the lathe bed and at right angle to it, can be accurately controlled, so enabling a part to be machined to close tolerances. Modern lathes are often under numerical control.

7

Welding: Gas Welding, Arc Welding and Resistance Welding.

Gas welding is a non-pressured process using heat from a gas flame. The flame applied directly to the metal edges to be joined and simultaneously to a filler metal in the form of wire or rod, called the welding rod, which is melted to the joint. Gas welding has the advantage of using equipment that is portable and does not require an electric power source. The surfaces to be welded and the welding rod are coated with flux, a fusible material that shields the material from air, which would result in a defective weld.

Arc Welding is the most important welding process for joining steels. It requires a continuous supply of either direct or alternating electrical current. This current is used to create an electric arc, which generates enough heat to melt metal and create a weld.

Arc welding has several advantages over other welding methods. Arc welding is faster because the concentration of heat is high. Also, fluxes are necessary in certain methods of arc welding.

In resistance welding, heat is obtained from the resistance of metal to the flow of an electric current. Electrodes are clamped on each side of the parts to be welded, the parts are subjected to great pressure, and a heavy current is applied for a short period of time. The point where the two metals touch creates resistance to the flow of current. This resistance causes heat, which melts the metals and creates the weld. Resistance welding is widely employed in many fields of sheet metal or wire manufacturing and is often used for welds made by automatic or semi-automatic machines especially in automobile industry.

8

Construction of an Automobile: The Running Gear and The Control System

The running gear of the car includes the Wheel-suspension system, the stabilizers, and the wheel and tires. The frame of the car may be considered the integrating member of the running dear. It is attached to the rear axle and to the front wheels by springs. These springs, along with the axles, the control and support arms, and the shock absorbers, constitute the wheel-suspension system. In modern cars the front wheels are independently suspended from the frame in a manner that permits either wheel to change its plane without appreciably affecting the other. This type of front-wheel suspensions is known popularly as independent suspension.

Steering is controlled by a hand wheel, mounted on an inclined column and attached to a steering tube inside the column. The other end of the tube is connected to the steering gear, which is designed to provide maximum ease of operation. Power steering, adapted for passenger cars in the early 1950s, is generally a hydraulic mechanism used as a booster to reduce the effort of steering.

A car has two sets of brakes: the hand emergency brake and the foot brake. The emergency brake generally operates on the rear wheels only. The foot brake in modern cars is always of the four-wheel type, operating on all wheels. Hydraulic brakes on cars and hydraulic vacuum, air, or power brakes on lorries apply the braking force to the wheels with much less force on the brake pedal than is required with ordinary mechanical brakes.

9

Diesel Engines: Two-Stroke Engine

The efficiency of the diesel engine is greater than that of any petrol engine. They are generally more heavily built than petrol engines, but this disadvantage is counterbalanced by their greater efficiency and the fact that they can be operated on less expensive fuel.

Most diesels are four-stroke engines. But by suitable design it is possible to operate a diesel as a two-stroke or two-cycle engine with a power stroke every other stroke of the piston instead of once every four strokes. The efficiency of such engines is less than that of four-stroke engines, and therefore the power of a two-stroke engine is always less then half that of a four-stroke engine of comparable size.

The general principle of the two-stroke engine is to shorten the period in which fuel is introduced to the combustion chamber and in which the spent gases are exhausted to a small fraction of the duration of a stroke instead of allowing each of these operations to occupy a full stroke.

In the simple type of two-stroke engine, the valves are the openings in the cylinder wall that are uncovered by the piston at the end of its outward travel. In the two-stroke cycle the fuel mixture or air is introduced through the intake port when the piston is fully withdrawn from the cylinder. The compression stroke follows and the charge is ignited when the piston reaches the end of this stroke. The piston then moves outward on the power stroke, uncovering the exhaust port and permitting the gases to escape from the combustion chamber.

10

Agricultural Machinery: Implements for Growing Crops

Many types of implements have been developed for the activities involved in growing crops. These activities include breaking ground, planting, weeding, fertilizing and combating pests.

Ground is broken by ploughs to prepare the seed-bed. A plough consists of a blade-like ploughshare that cuts under, then lifts, turns and pulverized the soil. Modern tractors ploughs are usually equipped with two or more ploughshares so that a wide area of ground can be broken at a single sweep. Harrows are used to smooth the ploughed land and sometimes to cover seeds and fertilizer with earth. The disk harrow, which has curved, sharp-edged disks, is used mainly to cut up crop residues before ploughing and

bury weeds during seed-bed preparation. Rollers with V-shaped wheels break up clods of soil to improve the aeration of the soil and its capacity for taking in water.

Some cereal crops are still planted by broadcasting seeds – that is, by scattering the seeds over a wide area. Machines for broadcasting usually consist of a long seed-box mounted on wheels and equipped with an agitator to distribute the seeds. Broadcast seeds are not always covered by a uniform or sufficient depth of soil, so seeding is more often done with drills, which produce continuous furrows of uniform depth. Specialized implements called planters are necessary for sowing crops that are planted in rows, such as maize. Maize planters and other similar machines have a special feed wheel that picks up small quantities of grain or separate kernels and places them in the ground.

11

Mechanization in Crop Production

Tillage practices vary with soil and climatic conditions and the crop that is to be grown. Tillage includes plowing, harrowing and rolling the soil. There are some purposes of tilling the soil. They are to improve the aeration and temperature conditions, to produce a firm soil and to control weeds. Different types of plows, harrows and rollers are now available to till the soil.

Seeds should be sown in a firm, moist soil and covered at a proper depth to germinate rapidly and uniformly. Many various types of grain drills and planters have been developed to suit varying farm requirements. Some modern drills are equipped with attachments for seeding legumes and grass seed and for spreading fertilizers. So, seed can be sown and fertilizer spread in one operation. Fertilizers can also be broadcast before planting. Recently attachments have been added to planters for applying insecticides and herbicides to the soil.

Harvesting crops is the final field operation. Combines that harvest and thresh small grains and some other crops have displaced most threshing machines or threshers. For harvesting to be successful, one should grow a variety that is adapted to mechanical harvesting. The plants should be of uniform height and should mature uniformly. Root crops and potatoes are harvested with root lifters and potato diggers respectively.

12

Mechanization in Livestock Raising.

Further increase in animal productivity is achieved both by the introduction of new machinery and by wider electrification and automation of different processes on livestock farms.

Some kinds of livestock equipment are almost completely automatic, thus eliminating most of the hand labour. Many farms are using now automatic waterers which provide water to livestock at all times. At the press of the button silage unloaders remove silage from the silo and drop it into the conveyer that carries the silage to the feed troughs. The feeding of grain and hay to dairy cattle has also been almost completely mechanized on some farms. On most farms manure is collected and transported automatically.

Different machines are now being used which permit a better digestion of various feeds by livestock. For instance, grain grinders, feed mixers, forage cutters increase the feeding value of grain, roughages and other feeds.

Milk pipelines connected to milking machines carry the milk to milk tanks where it is automatically cooled to the proper temperature.

In some poultry houses time clock devices are installed so that chickens can be fed automatically at the desired time of the day. On many poultry farms eggs are cleaned, graded and packed primarily by automation.

13

Agricultural Machinery: Implements for Harvesting Crops.

Most cereal crops are harvested by using a combine – a machine that removes the fruiting heads, beats off the grain kernels, and cleans the grain as combine moves through the fields. The cleaned grain is accumulated in an attached grain tank.

Wheat and other cereal crops are harvested by a combine which, as it moves along the rows, picks the ears from the stalks and husks them. The ears are then transferred either to a sheller, which removes the kernels from the ear, or to a vehicle trailing behind the machine.

Hay harvesting usually requires several steps. First, the hay is cut close to the ground with a mower. After drying in the sun, most hay is baked. In baling, the pick up baler lifts the hay to a conveyor that carries it to a baling chamber, which compresses the hay into bales weighing up to 57 kg or more and ties each bale with heavy twine or

wire. A machine called a field chopper cuts down green hay or field-cured hay for use as animal feed. After being cut down, the hay is stored in a silo and allowed to ferment; this type of animal feed is nutritious and resistant to spoilage.

Specialized machinery is also used to harvest large root crops such as potatoes and sugar beet and to harvest fruits and vegetables. Some mechanical fruit-pickers that are used to harvest tree fruits, such as plums, cherries, and apricots shake the fruit tree, causing the fruit to fall on to a raised catching frame that surrounds the tree. Nut crops can also be harvested in this manner.

Use of agricultural machinery substantially reduces the amount of human labour needed for growing crops.

14

Agricultural Machinery: Implements for Fertilizing, Weeding and Combating Pests.

Fertilizers can be distributed during the winter or shortly before seeding time. Commercial fertilizers are commonly distributed, along with seeds, by drills and planters. Manure is distributed most efficiently by a manure spreader.

After crops have begun to grow, a cultivator is used to destroy weeds and loosen and aerate the soil. A flame weeder, which produces a hot-air blast, can be used to destroy weeds growing around crops, such as cotton, that have stems of tough bark. The weeds are vulnerable to the hot air, but the tough stems protect the crops from damage. Chemical herbicides applied in the form of a spray or as granules are used extensively for weed control.

Insecticides for pest control are applied to soil and crops in the form of granules, dust, or liquid sprays. A variety of mechanical spraying and dusting equipment is used to spread chemicals on crops and fields. In areas where large crops of vegetables and grain are grown, aircraft are sometimes used to dust or spray pesticides.

Chemicals pesticides are used in nearly all farming operations undertaken in developed countries. However, increasing concern over the harmful effects that pesticides may have on the environment has led to the use of alternative forms of pest control. For example, farmers use crop rotation to prevent pests that feed on a certain crop. Also, certain pests are controlled by introducing an organism those damages or kill the pests, but leaves the crops unharmed. Finally, some crops are being genetically engineered to be more resistant to pests.

15

Intensive Technologies in Agriculture.

There are two ways of increasing the yield of farm crops. They are the cultivation of new lands and the increase in yields per hectare. In the recent past the first way was more popular. At present more agricultural products are obtained by intensification of agricultural production.

Intensification is based on mechanization, electrification and chemization which are the main sources of progress in agriculture. Most of agricultural processes in crop production and animal husbandry are mechanized now. They are the preparation of the soil, planting and harvesting crops, feeding farm animals and cleaning livestock buildings. Chemization of agriculture is increased by higher production and use of mineral fertilizers and other chemicals. They increase crop yields and quality.

Some other important intensive technologies are the development of better high-yielding varieties of crops, the application of most effective cultural practices, the breeding of better farm animals, the control of weeds, insects and diseases.

All intensification factors must be used in such a way as not to damage the land which is the basis of agriculture.

16

Care and Management of Farm Animals.

A lot of work has to be done by a farmer in caring for his livestock and their products. Barns and other buildings are to be provided in order to protect the animals from unfavourable weather conditions. Young animals – lambs, calves and pigs are known to require special care and protection. During the first days after birth animals are weak and may die if proper care is not provided.

At present separate building are usually provided for each kind of livestock such as cattle, hogs, sheep, and poultry. Cowsheds, sheep-pens, pigsties and poultry houses should be comfortable for livestock and workers who take care of the animals. Much attention is now paid to lighting, ventilation, temperature, and humidity in animal buildings. Very often farmers keep bulls in separate barns.

Probably no farm animal is more responsive to good care than is the dairy cow. Regularity in feeding and milking and kindness result in more milk and greater profits. Dairy cows are to be provided with plenty of bedding, such as clean, dry straw in the

barns where they are kept. When not on pasture cows should take exercise to be in good breeding condition.

17

Factors Affecting the Development of Plants.

All plants require certain conditions of the environment for their best growth and development. The most important of them are water, soil, sunlight and temperature.

Man cannot regulate the amount of rainfall but he can prevent the loss of moisture from the soil by proper cultivation or by irrigation.

Proper temperature is also essential for crop production. The optimum temperature for germination and growth varies with different kinds of crops. Grain crops such as wheat and barley, for instance, grow at lower temperature than cotton or corn. Many crops are more adapted to the temperate conditions than to colder or warmer environment.

Without sunlight many important processes in plants do not take place. One of them is photosynthesis by which plants produce food from inorganic materials.

Besides water the soil in which crops are grown is to be provided with air and all the necessary nutrients. The most important plant nutrients are nitrogen, phosphorus and potassium. There are at least 14 elements that are essential for proper plant growth. Farmers have to apply the nutrients taken by growing crops from the soil.

In order to produce highest yields crops should not only be provided with enough water, proper soil and necessary nutrients but they should be well adapted to both soil and climatic conditions.

18

Wheat.

Wheat is widely cultivated throughout the world. It is one of the most valuable crop plants. The countries leading in wheat production are the Russian Federation, The United States, China, Canada, India, France and Italy.

Wheat is known to be to different soil and climatic conditions. Only rye, barley, potatoes and some other crops are grown under colder conditions than wheat.

The wheat plant is an annual. There are spring wheat varieties sown early in spring and harvested in the late summer. There are also winter wheat varieties sown in the fall and maturing early the following summer.

Wheat grows best when it is sown in a well-prepared, fine and mellow seedbed. Sufficient moisture should be present for wheat seed to germinate quickly and for young plants to grow well.

Most of the wheat grown is sown with a drill. The rate and depth of sowing are more accurate and uniform with this method of sowing and less seed is required.

To obtain more and higher0quality grain and to reduce labour costs farmers harvest wheat with combines. Wheat is considered to be ready for combine harvesting when moisture content of the grain is 14 % or less.

19

Cereal or Grain Crops.

Cereals are those members of the grass family which produce edible seed. Wheat, barley, rye, oats, corn and rice are known to be most common and most valuable cereals. The cereals grown in the temperate zone are known as small grains. They are wheat, barley, oats and rye. They may be spring or winter annuals. Corn and rice are warm season crops. They are to be seeded in spring or early summer and mature in the fall.

Of the cereals raised wheat, rice and corn are the world's three most important grain crops. Although rice is the main food of more people, wheat is the first in importance as to the area sown and the total annual production.

There are some reasons why cereals are considered to be the man's leading food source. They produce food in a relatively short period of time, for they are annuals. In addition, they are adapted well to different soil and climatic conditions. Cultural practices required in growing grain crops are quite similar. Grain is easily drilled, harvested, cleaned and stored. All these operations are known to be highly mechanized.

For cereals to grow well they are to be grown on moderately fine and mellow seeded supplied with enough moisture. Though cereals do not supply much protein and vitamins, they are believed to remain a major source of food for people.

20

Manual and Automatic Transmissions

The transmission is a mechanism that changes speed and power ratios between the engine and the driving wheels. Three general types of transmission are in current use: conventional or sliding-gear, Hydra-Matic, and torque-converter systems.

The conventional transmission provides for three or foor forward speeds and one reverse speed. It consists of two shafts, each with gears of varying diameters. One shaft drives the other at a preselected speed by meshing the appropriate set of gears. For reverse speed, an extra gear, known as the idler gear, is required to turn the driven shaft in the opposite direction from normal rotation. In high gear, the two shafts usually turn at the same speed. In low, second, and reverse gears, driven shaft turns more slowly than the driving shaft. When a pair of gears permits the driven shaft to turn more rapidly than the driving shaft, the transmission is said to have overdrive. Overdrive is designed to increase the speed of a car.

The Hydra-Matic type of transmission combines the automatic clutch provided by fluid coupling with a semi-automatic transmission. A mechanical governor, controlled by the pressure exerted on the accelerator pedal, regulates gear selection through a system of hydraulically controlled shift valves. Hydra-Matic transmission provides for several forward gears.

The torque-converter type of transmission provides an unlimited number of gear ratios with no shifting of gears. The torque converter is a hydraulic mechanism using engine power to drive a pump, which impels streams of oil against the blades of a turbine. The turbine is connected to the drive shaft and causes it to rotate.