

LEATHERWORK 2

1. GENERAL COMMENTS

The standard of the paper is comparable with that of the previous years. Questions were distributed over the various topics of the syllabus.

There was a slight improvement in candidates' performance as compared to last year.

2. SUMMARY OF CANDIDATES' STRENGTHS

The Chief examiner observed the following strengths in candidates' responses:

- (1) Quite a number of candidates conveyed their ideas with clear and good sentences with relevant examples to buttress their facts;
- (2) Majority of the candidates were able to define the term '*pelt*' as used in leatherwork;
- (3) The effects of patenting and embossing to the surface appearance of leather were well answered by most candidates';
- (4) Most candidates were able to state the similarities and differences between leather and leatherette; embossing and carving; burnishing and lacquering; and split leather and skiver.

3. SUMMARY OF CANDIDATES' WEAKNESSES

The following were weaknesses identified in the candidates' scripts:

- (1) A few candidates could not define '*pelt*' as demanded by question 1(a).
- (2) Candidates had challenges in explaining how improper treatment of pelt can affect the finished leather products.
- (3) Question 2, which seeks for political importance of leather and skins in the indigenous Ghanaian society, was poorly answered by candidates.
- (4) Majority of the candidates defined when they were supposed to have described processes or operations involved in 'eyeletting', 'rivetting' and 'handle fixing'.
- (5) Candidates were unable to explain why direct and indirect risks can lead to the collapse of a business.
- (6) Few candidates could not explain the term 'fittings and dehairing' as demanded by question 6 (b & c).

4. SUGGESTED REMEDIES

- (1) Tutors/Candidates should seek for clarification of '*term(s)*' from relevant sources of materials pertaining to leatherwork when they are in doubt. For instance, textbooks, syllabus, internet, magazines etc could be consulted.
- (2) Tutors should set questions for class work, mid-term and mock exams to be tailored to application of concepts, rather than recalling of facts/concepts.

- (3) Tutors should not hesitate, in inviting resource persons to help teach topics related to entrepreneurship and taking candidates on excursions to educative sites. These moves would enhance teaching-learning of concepts.
- (4) Teaching and learning of Leatherwork should be more practicable. Candidates could easily answer question 3, if they have had hands-on-learning in fixing eyelets, rivets and handles.
- (5) Candidates should be advised to spend enough time to read and understand questions very well before answering them.

5. DETAILED COMMENTS

QUESTION 1

a) Define the term *pelt* as used in Leatherwork.

SOME EXPECTED ANSWERS

- A collective term for *skins and hides* in their raw state. Pelts got from larger animals like cattle, buffalo are called *hides*, and those got from smaller animals like goat, sheep, deer, alligator, pig, fish are the ones we call *skins*. Those obtained from very small animals like hares, rabbits, rats, frogs, etc are called *kips*.
- **Pelt is an undressed or unfinished skin or hide of an animal with its fur or hair still on.** Usually, animal skins or hides that are unfinished are called pelts.
- Pelt is a general term given to the outer covering of an animal after it has been removed from a slaughtered animal.

b) Explain *two* ways by which improper treatment of pelts can affect a finished leather product.

SOME EXPECTED ANSWERS

- (i) Stained – tanning agents and dyes can cause stains.
- (ii) Mouldy/mildew – improper drying/preservation can cause moulds/mildew.
- (iii) Scent/pungent smell – improper curing and fleshing can cause skins or pelts to smell.
- (iv) Uneven shape – improper pegging or drying can make pelts have uneven shape.
- (v) Brittle/Hard and stiff – improper washing of chemicals/drying can cause pelts to be brittle/hard/stiff.
- (vi) Discolouration – tanning agents, dyes and oils can cause discolouration of pelts.
- (vii) Cuts and scars – during fleshing and unhairing, care should be taken to avoid cuts.

(viii) Short life-span – during pre-tanning process, different chemicals are introduced into the pelt, and if washing, pickling and bating are not done well, the re-actions of these chemicals affect the life-span of the pelt and leather

c) In two points each, how do the following surface treatments improve the appearance of leather?

i) Patenting

ii) Embossing

SOME EXPECTED ANSWERS

i) PATENTING

- Seals surface pores;
- Very shinny, glossy/bright;
- Beautiful – it brings out the aesthetic qualities in the leather
- Very smooth surface.

ii) EMBOSSING

- Textured surface – it helps to create designs which decorate the leather surface;
- Patterned surface;
- Relief surface – gives three-dimensional effect to the leather;
- Beautiful – it appeals to the senses, eg sight and touch;
- It can be used to create simulated surfaces.

Question 1 was a popular question; hence majority of the candidates attempted it. Their responses were very satisfactory; therefore, they scored the entire marks allotted to the question. However, a few had a challenge with question 1 (a), which demanded the definition of a “*pelt*”.

It was observed that some of the candidates misconstrued “*pelt*” to be “*leather*”. This can be confirmed from the following definition they gave to *pelt*:

i) “Pelt is leather which has been tanned for the production of articles or artefacts.”

ii) “Pelt is the raw leather that has been frayed from a slaughtered animal.”

iii) “Pelt refers to the raw skin or hide which has gone through a chemical process known as tanning.”

It should be noted that these definitions quoted by candidates are incorrect because a *pelt* still has the hair/fur on the skin/hide and it has not gone through tanning yet. Therefore, referring to “*pelt*” as “*leather*” is inappropriate.

Also, although some candidates indicated the effects of improper treatment of pelts to the finished leather products, they failed to include in their responses what attributes to such effects. This can be deduced from these responses to question 1 (b):

- i) **“When a pelt is not properly treated it affects the finished leather product by decaying.”**
- ii) **“By causing bacterial attack to the leather product.”**
- iii) **“The leather product could smell bad when kept for a period of time.”**

From the responses above, it can be realized that the candidates failed to address *what* would cause the leather to ‘decay’, ‘smell bad’ and ‘have bacterial attack’. This prevented such candidates from scoring the full marks allocated to question 1(b).

QUESTION 2

In five points, discuss the political value of leather and skins in the indigenous Ghanaian society.

SOME EXPECTED ANSWERS

- **The power of the chief/king:** In some areas of the Northern parts of Ghana, the type of skin a chief sit on during enskinment determines his power of authority among or over other chiefs;
- **Leather and skins are used to produce umbrellas for our chiefs:** In the production of umbrellas, the size of the umbrella and even the number of umbrellas used for a chief determines his power. This means that, the size of the umbrella for a paramount chief will be bigger than that of a sub-chief.
- **Leather Wall Hangings:** Leather is used as wall hangings behind chiefs when they sit in state, hence this serves as a decoration piece, for status and bravery;
- **Use of Talisman and Insignia:** Talisman and insignia are embedded in smocks to protect the wearer and this is worn by royals;
- **The use of palanquins:** Most chiefs in Ghana use palanquins when they are enstooled and on special occasions like festivals. These palanquins are made of wood and covered with leather and skins. This easily helps to identify the king/chief among the others in a gathering;
- **Body adornment items:** Headband/Crowns, bangles, wristband, pendants, etc are worn by chiefs, queens, and royals to show their position and also to decorate them during occasions like festivals, funerals, etc.

The demands of question 2 are about the importance/role of leather in chieftaincy or kingship in the indigenous Ghanaian society. Unfortunately, most candidates did not understand the question from that point, hence associated their responses to

Contemporary Political set-up/the Pre-historic era. They therefore could not answer the question as expected and denied themselves from getting encouraging scores.

However, few candidates were able to state some political values of leather but could not link them to chieftaincy.

Examples of such responses are stated below:

- ✓ The use of drums;
- ✓ The use of palanquins;
- ✓ The use of chief's umbrellas;
- ✓ Native sandals, bangles, crowns, beads, etc for chiefs and queens.

It was observed that candidates' performance for question 2 was below average.

QUESTION 3

Describe the following operations in Leatherwork:

- a. Eyeletting;
- b. Rivetting;
- c. Handle fixing.

SOME EXPECTED ANSWERS

a) Eyeletting

- Lay out the proper size of hole for the eyelet on the leather;
- Mark-out and punch the marked area to create a hole;
- Insert the eyelet in the punched hole;
- Place the eyelet on a hard surface/ an anvil of the setter;
- Hold the eyelet setter over the eyelet in a vertical position;
- Strike the setter with a mallet – the eyelet is set/ press the handle to set.

b) Rivetting

- Select the correct size of the rivet post;
- Mark-out and punch the marked area with an appropriate tool, eg. revolving punch to create a hole on the leather;
- Insert the post through the layers of the leather pieces to be rivetted;
- Place the post and the leather pieces on a hard surface;
- Place the cap on the post;
- Hit the cap with a mallet until the closure is completed – the rivet is set.

c) Handle fixing

A handle is any part of a leather article that helps in carrying and moving the article. The following outlines the processes involved in fixing a handle to a leather article:

- Select/Produce the handle appropriate for the size and weight of the article;
- Determine the position convenient for carrying/plan a layout or where to fix the handle;
- Mark the position(s) and create holes to fix in rivets to hold in place/ create holes for thonging;
- Use mallet to fix the rivets to hold the handle place permanently/use a thong to sew on it to fix it permanently.

With this question, candidates were required to give a step-by-step process/procedure in fixing eyelets, rivets and handles on leather products. The question was most popular since majority of the candidates answered it.

Unfortunately, almost all those who attempted this question defined these findings (eyelet, rivets and handle), stated what they are used for, and their importance on a leather product. Candidates failed to understand that the question is about operations that are performed in fixing such findings (eyelets, rivets and handle) onto leather products.

Candidates' performance for question 2 was also not encouraging, because they failed to meet the demands of the question.

NB: Tutors should handle this aspect of leatherwork in such a way that candidates can easily substantiate eyelets, rivets and handles (which are findings) from eyeletting, rivetting and handle fixing (these are operations in fixing findings such as eyelet, rivet and handle onto leather products).

QUESTION 4

Smart Learning Tools

- a) Identify two types of risk a leather worker can face in his business.

SOME EXPECTED ANSWERS

- Direct risks
- Indirect risks

- b) Explain in *three* points each, why the *two* types of risks identified in 4 (a) can lead to the collapse of the leather worker's business.

SOME EXPECTED ANSWERS

i. Direct risks

This is a type of risk that directly affects the enterprise bringing all activities to a stop; they are controlled by internal factors in a business venture. The following are some examples of direct risks:

- **Theft/larceny:** This is where workers or outsiders steal from the business. If the entrepreneur is not vigilant in his supervisory role, this can lead to the collapse of the business.
- **Fire:** A fire outbreak can collapse a business unexpectedly and this most of the time occurs as a result of faulty electrical connections and appliances. This happens when unqualified electrician is employed to do wiring of cables or when weak/faulty wires are not replaced or when inferior cables or switches/appliances are used.
- **Misuse of capital and profit through irresponsible expenses:** This happens when the leather worker decides to use the business capital for personal expenses instead of reinvesting into the business for further production.

ii. Indirect risks

- **Lack of sales due to:**
 - ✓ *low quality products:* This happens when the quality of products does not meet the standard of the customers;
 - ✓ *low quality materials:* This can affect one's output and the quality of the end product (leather article).
 - ✓ *faulty equipment/tools used:* This affects productivity
 - ✓ *wrong business location:* When the location of the business is far away from the target group/customers
- **Currency inflation:** This is an economic process which prices increase so that money becomes less valuable. This affects businesses where there is the need to buy new raw materials.
 - **Introduction of new taxes:** Introduction of new taxes by the Government can slowly collapse a business if the entrepreneur (leather worker) does not have contingency plan for them.
 - **Changes in labour laws:** This can affect the success of a business if the leather worker has more workers and is not abreast with these changes.

Question 4 was attracted by many candidates'; however, their performance was below average. The two types of risks as demanded by question 4 (a) were correctly stated by most of the candidates.

However, a few of them wrote at least two of these wrong answers for question 4 (a):

- ✓ **Financial problems;**
- ✓ **Lack of raw materials;**
- ✓ **Inadequate capital;**
- ✓ **Lack of work personnel;**
- ✓ **Improper wiring of the shop;**
- ✓ **Taking of loan as a start up capital, etc**

It was observed that most had a challenge with question 4 (b), where candidates were expected to explain why the risks identified in question 4 (a) could lead to the collapse of a business. One can confidently conclude that once responses for question 4 (a) are wrong; it would be translated into responses for question 4 (b). And that was exactly what happened to most candidates who attempted this question. Such candidates deviated and that made them scored below average.

Examples of some wrong answers were:

- ✓ **Flooding;**
- ✓ **Ghanaians do not go into leather business;**
- ✓ **Lack of capital;**
- ✓ **Workers attitude to work/Laziness, etc.**

It should be noted however that, few candidates got question 4 (b) correct: points were well spelt-out and expatiated with examples cited to buttress each point. Also, there were few candidates who stated their points correctly but failed to explain them.

QUESTION 5

State the *main* similarity and difference between the following pairs:

- a. **Leather and leatherette;**
- b. **Embossing and carving;**
- c. **Burnishing and lacquering;**
- d. **Split leather and skiver.**

SOME EXPECTED ANSWERS

S/N		SAMILARITY	DIFFERENCE
1	Leather and Leatherette	Both leather and leatherette are used in the production of leather items/articles.	Leather is produced from the outer covering of animals, while leatherette is produced from synthetic materials (cellulose)
2	Embossing and Carving	They are both techniques which involves casing and gives three-dimensional(relief) appearance to the surface of leather	Embossing is done to raise a portion of a design on the leather surface through hand tooling process or using interchangeable embossing wheel, whilst Carving is under cutting of designs on thick leather to give a raised or sunken effect.
3	Burnishing and Lacquering	Both make the surface of a leather durable and glossy	Burnishing involves the use of hard and smooth object to rub on a surface. On the other hand, lacquering involves the use of liquid (lacquer) substance to coat the grain side of a leather to achieve a glossy finish.
4	Split Leather and Skiver	Both are leathers separated into layers of sheets	Split leather is the under portion of a hide or skin that has been split into two or more thicknesses which can be finished or embossed to simulate a full grain, whilst skiver is a grain side split of a skin or hide split of a skin or hide which can be used for linings and bookbinding.

Majority of the candidates attempted this question and most of them scored the full marks allocated to it. Similarities and differences for each pair were well established just as indicated in the expected answers above for question 5.

A few candidates cited these incorrect responses

- ✓ “Burnishing is done by using glass bottle and lacquering is done by using solution.”
- ✓ “Split leather is obtained by using splitting knife and a skiver is done by using skiving knife.”

- ✓ “Embossing is made in leather and carving is done on wood”

QUESTION 6

Explain the following processes:

- a. Thonging;**
- b. Dehairing;**
- c. Fittings;**
- d. Tanning;**
- e. Finishing.**

SOME EXPECTED ANSWERS

a) Thonging

- This is an assembling process which involves the use of strips of leather of various thicknesses, colour and length to sew through already punched holes or slits in various decorative styles like running thonging, crisscross thonging, button hold thonging, etc.
- It is a decorative technique used to sew or cover edges of leather articles both as decoration and permanent joining.

b) De-hairing

- This is the removal of hairs from the surface of the leather from the grain side. It is done by both chemical and mechanical means.
- This is the removal of or detaching of hair/fur from the pelt after liming. After the pelt is taken through liming and loosening the hair roots of the fur, the pelt is taken to a machine which scrapes the fur from the pelt. The pelt could also be put on a wooden beam/scraping board and the scraping knife is used to scrape off the fur.

c) Fittings

- Fittings are used to protect and decorate leather products/articles. Fittings for leather products are offered in many various designs. They are usually made in gold or silver colour and decorated with different ornaments.
- Fixing of fittings. Is the process of decorating, joining, protecting and fastening parts of leather articles together. It is done using fittings such as grommets, rivets, cowries, etc.

d) Tanning

- It is the process of preparing or processing skins/hides into leather using tannic acid. This makes the leather durable and more susceptible to decomposition. Tanning can be performed with vegetable or mineral method.

- Tanning is described as the chemical process of treating animal skins and hides to convert them into leather, suitable for a wide variety of end application regardless of which method of tanning is employed. The purpose is to make the leather more resistant to heat and moisture, less susceptible to putrefaction, impeccable, tough yet flexible.

e) *Finishing*

- Finishing is the final treatment given to leather and leather products for enhancement. It involves waxing, polishing, burnishing, trimming, lacquering, etc. The term finishing is applied in the leather industries to help enhance the properties and the appearance of the final piece of the leather.
- Finishing is used in the leather industry to describe a whole series of processes and operators which improves the properties and appearance of the leather. Finishing includes: waxing, burnishing, lacquering, trimming, etc.

Most of the candidates were familiar with these leatherwork terminologies hence, majority were attracted to the question. It was observed that candidates' performance for question 6 was spectacular. Majority scored the full marks allotted for the question.

However, some candidates could not explain the term "*fittings*" and a few also had difficulty in explaining "*dehairing*".

