

PRINCIPAL EXAMINER'S REPORT



BOTSWANA
EXAMINATIONS
COUNCIL

JCE DESIGN & TECHNOLOGY

2021

Paper 2

General Comments

Section A

Question 1

Most of the candidates were able to state one of the safety precautions that must be chosen when using hot melt adhesives.

Question 2

Few candidates were able to name the two sources of renewable energy while most of the candidates stated one (1) source.

Question 3

Most of the candidates gave the general property and the uses instead of the working property.

Question 4

Almost all the candidates were writing screw for their answers for sheet metal as a temporary joining method instead of writing a specific screw such as engineering screws and machine screws. However, all the candidates wrote the correct response for joining softwood with screws.

Question 5

Most of the candidates were able to write the proper advertising strategies whilst others wrote the general terms or umbrella words like social media and media complex.

Question 6

For the tools and materials candidates showed good knowledge however, they failed to get the process correct because instead of writing checking for squareness they wrote marking for squareness.

Question 7

- (a) Almost all candidates did not state the name of the component which is a Rocker switch but instead they wrote switch or ON & OFF.
- (b) Instead of getting two marks almost all the candidates got a single mark because they failed to sketch the proper contacts points for the switch.

Question 8

- (a) Majority of the candidates were able to state the gear mechanisms.
- (b) Majority were able to describe the movement of the gears but failed to write the movement of the correction tape description.

Question 9

- (a) A few candidates stated the correct tool which is the hole saw and the drill bit.
- (b) Most of the candidates gave specific materials instead of commercial available forms.

Question 10

Most of the candidates failed to come up with a specific term that would describe what could happen when chiselling as shown in the diagram (which is splitting).

Section B

Question 11

- (a)
 - i. Almost all the candidates got the suitable material that could be used for making the top.
 - ii. Almost all of the candidates failed to explain the reason why they chose the material in (i)
- (b)
 - i. Instead of linking the material to the diagram and the form they wrote incorrect forms like pipes and tube.
 - ii. They performed poorly in this question because they wrote general properties of materials.
- (c) An average number of candidates were giving a general name like hinges instead of writing specific ones that will allow the legs to fold easily.
- (d) Most of the candidates indicated incomplete process of joining the fitting to the legs and top because they did not state the tools.

Question 12

- (a) The candidates fairly got the question correctly because they managed to state the specific materials that can be used for the steps and the frame.
- (b) Candidates managed to write the correct finish for the wood which is varnish but failed to state a suitable finish for metals appropriate for the kitchen environment.
- (c) Instead of modifying the existing idea, candidates came up with completely new ideas and this made them perform so badly on this question.
- (d) Almost all candidates did not consider the material chosen at (a) hence making them to perform poorly on this question.

Question 13

- (a)
 - i. Most of the candidates did not consider the stem of the question because the question wanted wood and metals only to be used to make the container (no plastic)
 - ii. Candidates wrote the wrong materials and others gave the general properties.
- (b) Most of the candidates gave inappropriate tools for the marking and measuring out. Most of the candidates were able to drill the wall and the organised Most of the candidates gave the fixing without a fisher plug.
- (c) Most of the candidates did not answer the question correctly because they were misled by the word securing because they wrote installing alarms and using padlocks to secure the organiser.

Question 14

It was exceptionally done very well because candidates were able to sketch an idea with compartments even though most of them graphically presented their ideas in 2D. It shows that candidates lack practical skills. Candidates however, were able to label the items to be put inside the holder.