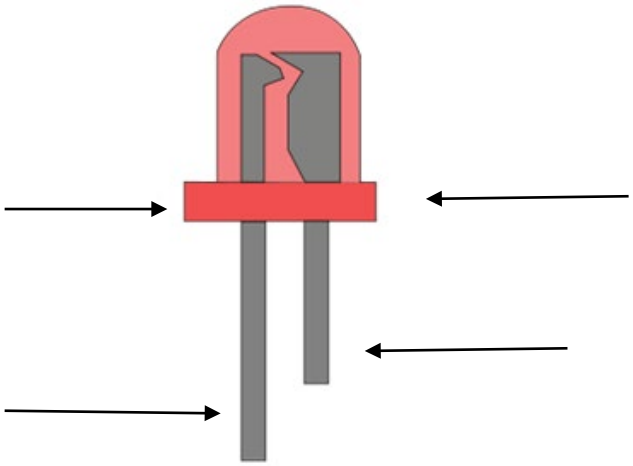
Year 9 Design and Technology Questions

Section A
Electronics Technology (10 marks)

1) Use the words below to complete the diagram below



a) Anode
b) -
c) Cathode
d) +

2) Name the part

a) Resistor □
b) Transistor □
c) Cell □
d) Capacitor □

3) Name the part

a) Needle nose pliers □
b) Wire gripes □
c) Wire cutters □
d) Crocodile clips □

4) name this tool

a) volt meter □
b) solder sucker □
c) Current meter □

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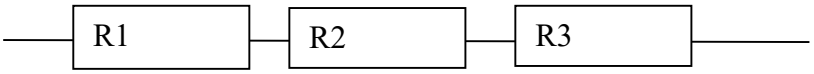
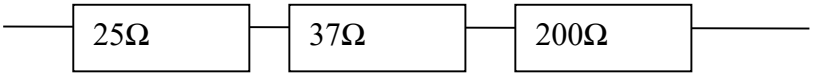
	d) Watt calculator □

When resistors are connected one after each other this is called a series connection.

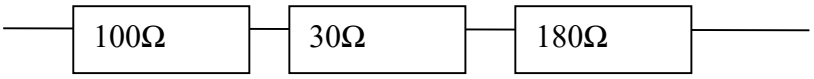


To calculate the total overall resistance of a number of resistors connected in this way you need to add up the individual resistances.
Rtotal = R1+R2+R3



Rtotal = 25+37+200
=262Ω

5) Try working the following resistances out for your self



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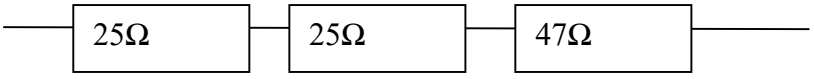
6) And this one.



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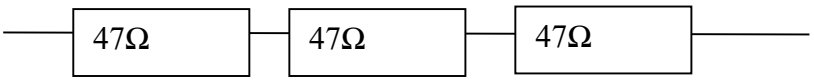
7) **<u>Final one.</u>**



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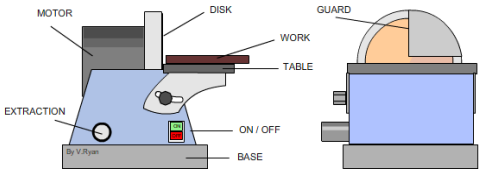
Resistant Materials

Name the tool

1)	a) Rotation moulder □ b) Line bender □ c) Injection moulder □ d) Vacuum former □
2)	a) welder □ b) Glue gun □ c) stapler □ d) screw driver □
3) 	a) Belt sander b) Disk sander c) Palm sander d) Pillar drill

4) 1 meter is equal to which of the following measurements?

a) 1000mm □
b) 10000mm □
c) 100mm □
d) 100000mm □

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5) Oak falls in to which of the following material types?

a) Man made wood □
b) Soft wood □
c) Hard wood □
d) Plastics □

6) Line bender is a machine in the work used to bend which of the follow materials?

a) Hardwoods □
b) Manufactured boards □
c) Metals □
d) Plastics. □

7) Which of the following tools tightens the drill piece in to a drilling machine?

a) Chuck key □
b) Allen key □
c) Yale key □
d) Screw driver □

8) Which of the following is **not** a marking out tool?

a) Pencil □
b) Rule □
c) Set square □
d) Tenon saw □

Design Process

Use the following words to answer the 4 questions below.

Design Problem Research Specification Evaluation Brief Design Idea Annotation

1) What is a list of rules used to aid your design work?

_____

2) Gathering information from the internet and books is called what?

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_____

3) At the end of any project you should carry out what?

_____

4) To add notes and further information to a design idea is known as?

_____

Manufacturing – means to make or assemble all the parts.

1 Which of the following processes is not a printing method?

a) Lithograph □
b) Ink jet □
c) Laser □
d) Trace □

2) What does CAD stand for?

a) Computer aided design □
b) Computer added design □
c) Click and design □
d) Click aided design □

Health and safety

1)	When using this machine, you must a) Wear safety glasses ☐ b) Wear sun glasses ☐ c) Wear hair tied back ☐ d) Wear breathing mask ☐

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2) **When using any piece of machinery which gives off dust or fumes you must turn what piece of equipment on?**	a) Dust buster ☐ b) Warning light ☐ c) Extraction unit ☐ d) Guards ☐
3) 	What does this sign mean? a) Floor may be wet ☐ b) Floor has been polished ☐ c) A sign has been left out ☐ d) No entry ☐

4) When you have finished with a piece of machinery what should you do with it?

a) Turn it off at the machine ☐

b) Leave it running ☐

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c) Turn it off at the mains, dust down and return any equipment □

5) You find a broken tool in the tool store what should you do with it?

a) Put it back □
b) Inform teacher and remove from store □
c) Hide it □
d) Put it on the teacher's desk □

6) When cooking or working in the workshops girls and boys with long hair should do what?

_____

7) On the pillar drill how many people should be using the machine at any one time?

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