



AICTE-IDEA (Idea Development, Evaluation & Application) LAB SCHEME



AICTE
IDEALab

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Date: 09.01.2023

To,
The Principal,
SJC Institute of Technology,
Chickballapur-562101

Through,
Dr. B N Shobha,
HOD, Electronics & Communication Engineering,
SJC Institute of Technology,
Chickballapur-562101

Respected Sir,

Sub: Requesting permission to conduct 3 Days Hands-on workshop on PCB Designing for the students.

With reference to the above subject, we are planning to conduct "3 Days Hands on Workshop on PCB Designing", for V Sem students under AICTE Activity Idea Lab scheme, on 10th-12th January 2023. The program schedule, brochure and the contents to be covered are attached here within.

Kindly grant the permission for conducting the same.

Thanking you Sir,

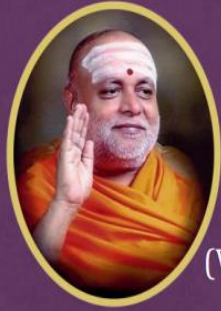
Permitted
Dr. B N Shobha

Yours faithfully,

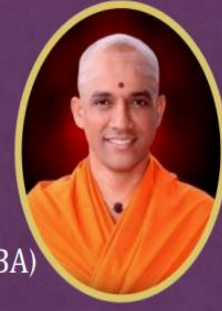
B. N. Shobha
09/01/2023

(Dr. B N Shobha)
Prof. & Head

Dept. of Electronics & Communication Engg
S.J.C. Institute of Technology
CHICKBALLAPUR - 562 101



|| Jai Sri Gurudev ||



Adichunchanagiri Shikshana Trust ®
SJC INSTITUTE OF TECHNOLOGY

Chickballapur- 562101, Karnataka, India
(VTU Affiliated, AICTE Approved, Accredited by NAAC & NBA)



SJCIT
Chickballapur



AICTE IDEA LAB

is organising

3-days Hands on Workshop on PCB Designing



DATE: 10-12TH JAN 2023

Venue: IDEA Lab, SJCIT



TECH GURUS

Dr. Pranjala Tiwari
Dr. Krushitha Shetty
Prof. E. N. Srivani

Faculty Coordinator

Dr. Bhaskar S.
ECE, SJCIT
Chickballapur

Faculty Co-coordinator

Dr. B. N. Shobha
HOD, ECE, SJCIT
Chickballapur

Organising chair

Mr. Suresh J.
Registrar, SJCIT
Chickballapur

Chief Mentor

Dr. G. T. Raju
PRINCIPAL, SJCIT
Chickballapur



||Jai Sri Gurudev||
S J C Institute of Technology
P B No.20, BB Road, Chicklapur-562101
Department of Mechanical Engineering



AICTE IDEA LAB
3-days Hands on Workshop on PCB Designing

10-12th January 2023
Venue: IDEA Lab, SJCIT

Program Schedule

Day/Date	Time	Name and Organization of the Resource Person	Topic
Day-1 Tuesday [10/01/2023]	9:30-10:30 am	Dr. Pranjala Tiwari Associate Professor, ECE, SJCIT	Introduction to Advanced PCB designing technology.
	10:30-11:30 pm		Familiarization with Ki-cad software for building and designing the circuit
	11:30-12:00 pm	Dr. Krushitha Shetty Assistant Professor, ECE, SJCIT	Steps involved in manual PCB designing process
	1:00 -2:00 pm	Dr. Pranjala Tiwari Dr. Krushitha Shetty Prof. E.N.Srivani	Circuit implementation on breadboard
	2:00-3:30 pm		Circuit designing on Ki-cad software
Day-2 Wednesday [11/01/2023]	1:00- 4:00 pm	Assigning topics and components to each group with the circuit diagram	
Day-3 Thursday [12/01/2023]	9:30-4:00 pm	Implementation on Breadboard	
		Designing on Ki-cad software Hands on PCB designing individually for each group	

Contents to be covered:

1. History and evolution of PCB circuits
2. THT vs SMD PCB technology
3. Familiarization with Ki-cad software interface
4. Designing of basic circuits using the software library
5. Fabrication of PCB boards using CNC router
6. Hands-on manual fabrication process
7. Preparation of custom designed PCB Boards

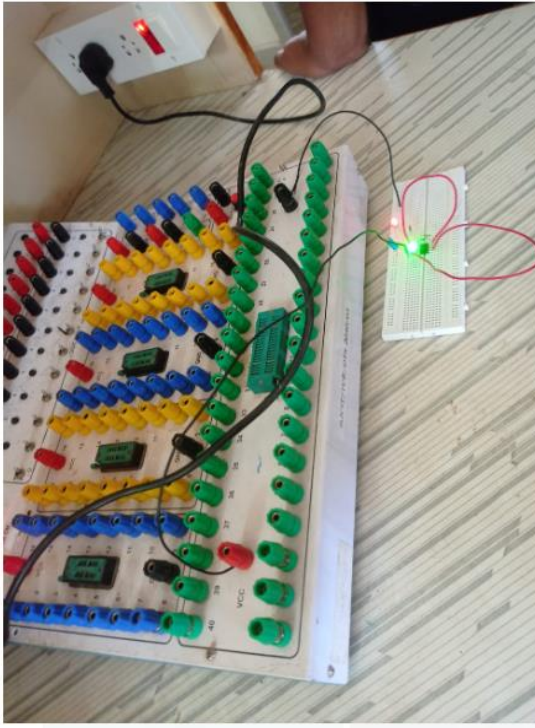
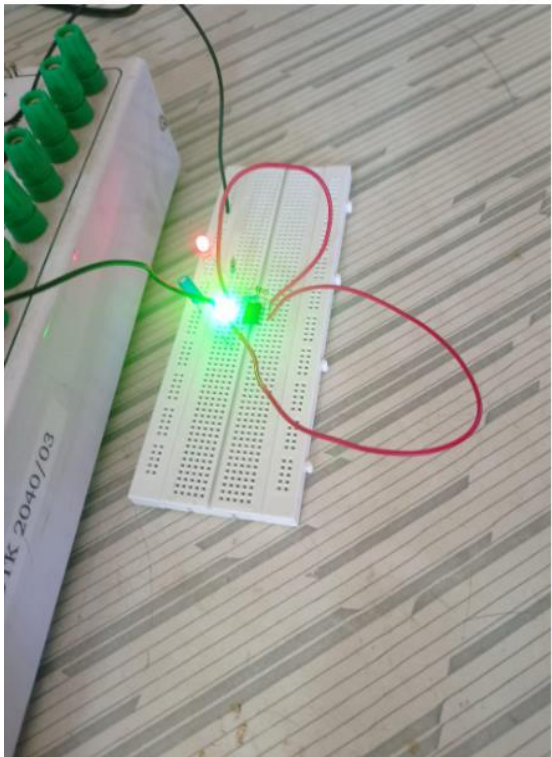
Registration List

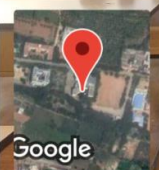
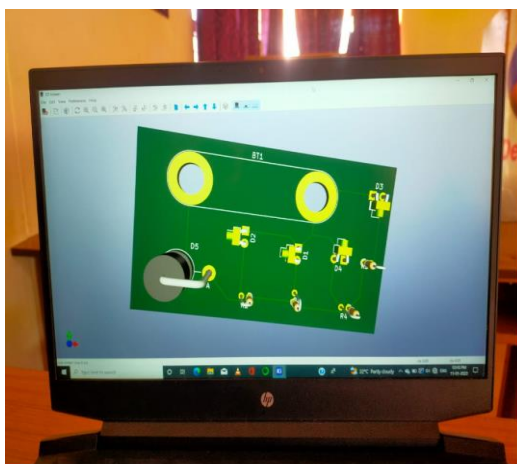
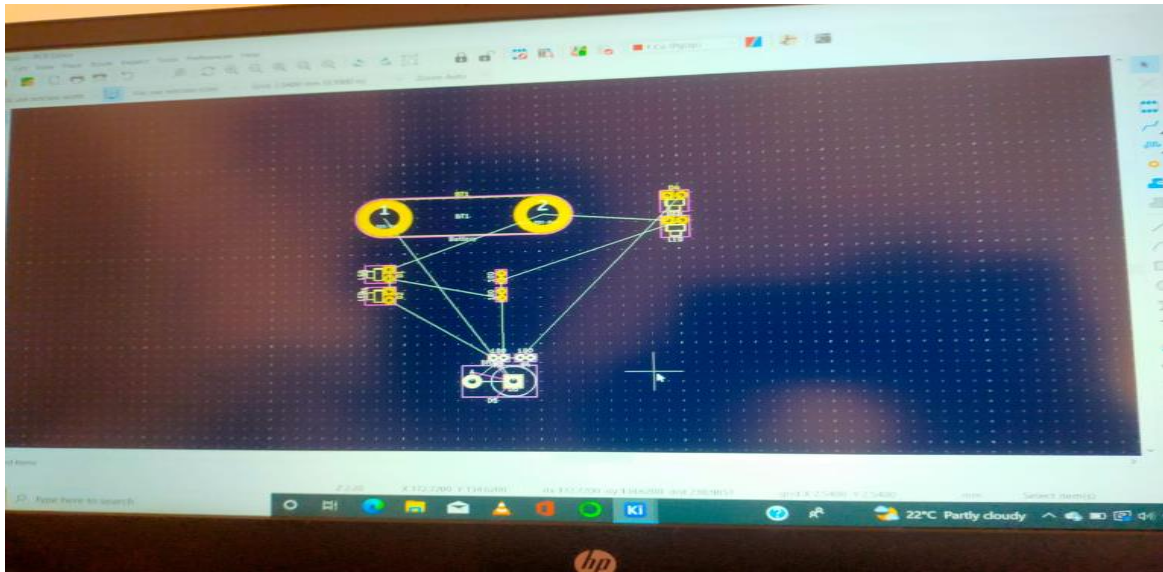
Meher ujjwala N R 1SJ20EC090	Saurabh (1SJ20EC133)	Namitha K S 1SJ20EC094
Madhushree N 1SJ20EC080	Meghana N	Megha shree Y V 1SJ20EC089
Navitha K 1SJ20EC098	Prathima S 1SJ20EC112	Neha V 1SJ20EC100
Meher ujjwala - 1SJ20EC090	R Saikrithi - 1SJ20EC116	Namitha k s -1SJ20EC094
MANOJ.M 1SJ20EC083	KEERTHI KUMARA 1SJ20EC067	LAKSHMI SAGAR.D 1SJ20EC075
LOKESH G V (1sj20ec078)	Ramesh g v(1SJ20EC121)	Naveen K N(1SJ20EC097)
Shreyas.S.R [1SJ20EC136]	Sudarshan.G [1SJ20EC147]	Varsha siri.M [1SJ20EC172]
Shahameer,Taj 1SJ20EC134	Sahana D 1SJ20EC131	Roushini 1SJ20EC126
Kavyana H (1SJ20EC064)	Keerthana S (1SJ20EC066)	Meghana K (1SJ20EC072)
Rajini H S_(1SJ20EC118)	Rakshitha B A (1SJ20EC119)	Meghana M (1SJ20EC086)
Shahameer,Taj (1SJ20EC134)	Sahana D (1SJ20EC131)	Roushini (1SJ20EC126)
Shahameer,taj (1SJ20EC134)	Sahana D(1SJ20EC131)	Roushini (1SJ20EC126)
Thimmarreddy,K B 1SJ20EC159	Ravikiran,H K 1SJ20EC123	Bharath Gowda A S 1SJ21EC401
Bhavana H N (1SJ20EC022)	Deeksha R (1SJ20EC038)	Adlin Ananya V (1SJ20EC002)
Lokesh G V 1sj20ec078	Naveen K N 1sj20ec097	Pavan Kumar T J 1sj20ec104
1SJ20EC058	1SJ20EC044	1SJ20EC043
Srilakshmi A=1SJ20EC144	Tharu shree S=1SJ20EC156	Varshini S=1SJ20EC174
SAMYAMA C 1SJ20EC132	SHUBHA D_1SJ20EC137	RUKSAR R 1SJ20EC127
Samyama C 1SJ20EC132	Shubha D 1SJ20EC137	Ruksar R 1SJ20EC127
SAMYAMA C 1SJ20EC132	SHUBHA D 1SJ20EC137	RUKSAR R 1SJ20EC127
SAMYAMA C 1SJ20EC132	SHUBHA D 1SJ20EC137	RUKSAR R 1SJ20EC127
Annayajala Niketh Sandilya_(1SJ20EC010)	Gottipati Prem Kumar (1SJ20EC050)	Sudeep Reddy (1SJ20EC051)
Tejas Gowda. R	Tharun. V	Sri kiran
Sonika.N(1SJ20EC143)	Poornima.L (1SJ20EC105)	Likhitha.N.M (1SJ20EC076)
DILIP BE (1SJ20EC041)	AKASH V (1SJ20EC004)	AJAY KUMAR R (1SJ20EC003)
Bhanushree.K.M	Chandan S	Anusha KM
1SJ20EC036	1SJ20EC031	1SJ20EC046
Chandan Kumar A V (1SJ20EC028)	Abhishek H (1SJ20EC001)	Ankith.gowda M (1SJ20EC009)
Bhargavi S (1SJ20EC021)	Chinmaye C G(1SJ20EC033)	K Bhuminpriya (1SJ20EC059)
Punith H 1SJ20EC115	Puneeth M 1SJ20EC114	Prashant D R 1SJ20EC109
P S Vishwanath Koushik _1SJ20EC103	Pranith S V _1SJ20EC108	Manoj N C_1SJ20EC084
VYSHNAVI L (1SJ20EC179)	TARIGOPULA DINESH KARTHIK CHOWDHARY (1SJ20EC150)	VARSHA MAHESHWAR (1SJ20EC171)
Chandu shree T A (1SJ20EC030)	Bhargavi A S (1SJ20EC020)	Divya Reddy P R (1SJ20EC042)
Rakshitha k	Hari Prasad N	Anvitha L
T Jithendra (1SJ20EC158)	Shreyas Kumar A (1SJ20EC135)	Nizamuddin V S (1SJ20EC176)
Harshitha A-1SJ20EC056	Chirayu N-1SJ20EC035	Anusha G M-1SJ20EC012
Chinmaye C G - 1SJ20EC033	Bhargavi S - 1S20EC021	Gandhuri Kiran Kumar - 1SJ20EC048
Hemanth Kumar C 1SJ20EC057	Kondurukoushikkumarraju1SJ20EC071	Hari Krishna G 1SJ20EC053
Gongati.geethika(1SJ20EC049)	B V DEEPIKAPOORNIMA (1SJ20EC017)	K Nandini (1SJ20EC061)
subhan c (1SJ20EC146)	s upendra (1SJ20EC130)	saurabh (1SJ20EC133)
Gongati Geethika-1SJ20EC049	B. V Deepika poornima-1SJ20EC017	Boyapati Harshitha- 1SJ20EC025
D V MADHURI(1SJ20EC37)	T VYSHNAVI(1SJ20EC149)	N DHANA SREE(1SJ20EC099)
SAMYAMA C 1SJ20EC132	VYSHNAVI R 1SJ20EC180	SMITHA N 1SJ20EC141
Vandana Gangothri.V (1SJ20EC168)	1SJ20EC166	1SJ20EC095
Uday Kiran j ,1SJ20EC162	Tejas G S 1SJ20EC152	Vankadaru Sai gavathri 1SJ20EC170
Prajwal C 1SJ20EC107	Rajendra R S 1SJ21EC405	Praveen Kumar D C 1SJ20EC113

Event photos



GPS Map Camera
Kothanoor, Karnataka, India
9PVH+VGX, Kothanoor, Karnataka 562103, India
Lat 13.394726°
Long 77.728766°
10/01/23 11:28 AM GMT +05:30
Google





Kothanoor, Karnataka, India
 9PWH+3HF, Kothanoor, Karnataka 562103, India
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 Long 77.729015°
 11/01/23 03:10 PM GMT +05:30



Kothanoor, Karnataka, India
 9PWH+3HF, Kothanoor, Karnataka 562103, India
 Lat 13.394963°
 Long 77.7291°
 12/01/23 11:53 AM GMT +05:30

Quiz Questions

- 1. Which technology makes the components to be inserted on board with pre-drilled holes?**
- 2. Where the components placed on the board are soldered?**
- 3. How many layers does a PCB have?**
- 4. Traces and planes utilized in PCB designing comprises of _____?**
- 5. How a PCB board can be designed initially?**
- 6. What is the further step in PCB design after the libraries get ready?**
- 7. What verifies whether the circuit connections work properly?**
- 8. What is the further step in PCB design after the schematic?**
- 9. What is the common variety of PCBs available?**
- 10. How many conducting layers are present in Single-sided PCB?**

Quiz report

Row	Score	Name	QID	Type	Text	Score
42	10.00 / 10	cmsubhan	1s120ec14	Through-F	1.00 / 1	1.00 / 1
43	10.00 / 10	0	Sindhu BS	Through-F	1.00 / 1	1.00 / 1
44	8.00 / 10	Anushree	1s120ec01	Through-F	1.00 / 1	1.00 / 1
45	10.00 / 10	Anusha bt	1S120EC01	Through-F	1.00 / 1	1.00 / 1
46	10.00 / 10	Sudarshar	1S120EC14	Through-F	1.00 / 1	1.00 / 1
47	10.00 / 10	10	1s120ec09	Through-F	1.00 / 1	1.00 / 1
48	10.00 / 10	10	1S120EC12	Through-F	1.00 / 1	1.00 / 1
49	8.00 / 10	mokshasa	S MOKSHA	Through-F	1.00 / 1	1.00 / 1
50	7.00 / 10	Thimmap	1S120EC15	Through-F	1.00 / 1	1.00 / 1
51	10.00 / 10	5	1S120EC14	Through-F	1.00 / 1	1.00 / 1
52	10.00 / 10	D.V.MADH	1S120EC03	Through-F	1.00 / 1	1.00 / 1
53	9.00 / 10	10	1S120EC4C	Through-F	1.00 / 1	1.00 / 1
54	10.00 / 10	Good	1S121EC4C	Through-F	1.00 / 1	1.00 / 1
55	10.00 / 10	ravikiran6	1S120EC12	Through-F	1.00 / 1	1.00 / 1
56	7.00 / 10	S.Upendra	1S120EC13	Through-F	1.00 / 1	1.00 / 1
57	7.00 / 10	vv784432	Vandana f	Through-F	1.00 / 1	1.00 / 1
58	10.00 / 10	Good	1S120EC16	Through-F	1.00 / 1	1.00 / 1
59	10.00 / 10	Vishwas K	1s120ec17	Through-F	1.00 / 1	1.00 / 1
60	9.00 / 10	PCB	1S120EC14	Through-F	1.00 / 1	1.00 / 1
61	10.00 / 10	reethum3	1S120EC12	Through-F	1.00 / 1	1.00 / 1
62	10.00 / 10	Navabathi	1S120EC05	Through-F	1.00 / 1	1.00 / 1

Row	Score	Name	QID	Type	Text	Score
21	3.00 / 10	Chandana	1S120EC02	Surface M	0.00 / 1	0.00 / 1
22	4.00 / 10	sharadwa	1s121ec40	Through-F	1.00 / 1	1.00 / 1
23	4.00 / 10	Nothing	1S120EC06	Through-F	1.00 / 1	1.00 / 1
24	6.00 / 10	Quiz	1S120EC05	a & b	0.00 / 1	0.00 / 1
25	10.00 / 10	Nothing	1S120EC08	Through-F	1.00 / 1	1.00 / 1
26	10.00 / 10	No	1S120EC1C	Through-F	1.00 / 1	1.00 / 1
27	8.00 / 10	gowdat77	1S120E153	Through-F	1.00 / 1	1.00 / 1
28	9.00 / 10	Nothing	1S120EC07	Through-F	1.00 / 1	1.00 / 1
29	7.00 / 10	thimmar	1S120EC15	Through-F	1.00 / 1	1.00 / 1
30	8.00 / 10	Trupthi s	1s120ec16	Through-F	1.00 / 1	1.00 / 1
31	8.00 / 10	10	1S119EC14	Through-F	1.00 / 1	1.00 / 1
32	9.00 / 10	Trupthi	1s120ec16	Through-F	1.00 / 1	1.00 / 1
33	10.00 / 10	Tayiba Fat	Tayiba Fat	Through-F	1.00 / 1	1.00 / 1
34	10.00 / 10	Bharath G	1S121EC4C	Through-F	1.00 / 1	1.00 / 1
35	10.00 / 10	Trupthi	1s120ec16	Through-F	1.00 / 1	1.00 / 1
36	9.00 / 10	10	1S120EC14	Through-F	1.00 / 1	1.00 / 1
37	10.00 / 10	0	1S120EC14	Through-F	1.00 / 1	1.00 / 1
38	10.00 / 10	subhanc9	1s120ec14	Through-F	1.00 / 1	1.00 / 1
39	10.00 / 10	Bhargavi A	1S120EC02	Through-F	1.00 / 1	1.00 / 1
40	10.00 / 10	subhanc9	1s120ec14	Through-F	1.00 / 1	1.00 / 1
41	7.00 / 10	Excellent	Vasu M N	Through-F	1.00 / 1	1.00 / 1

Row	Score	Name	QID	Type	Text	Score		
1	Total score	[Score]	[Feedback]	USN with USN with USN with	1. Which 1. Which 1. Which 2.Where 2.Where 2.Where	3. How m 3. How m 3. How m	4. Traces 4. Traces 4. Traces	5.
2	6.00 / 10	1S120EC04	Through-F	1.00 / 1	Metal Pad 1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
3	6.00 / 10	krishnakiti	Through-F	1.00 / 1	Metal Pad 1.00 / 1	Multiple 0.00 / 1	Copper 1.00 / 1	Us
4	5.00 / 10	smithanar	Through-F	1.00 / 1	Traces 0.00 / 1	Multiple 0.00 / 1	Copper 1.00 / 1	Us
5	8.00 / 10	S BHAVAN	Through-F	1.00 / 1	Metal Pad 1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
6	8.00 / 10	Monika Sli	Through-F	1.00 / 1	Metal Pad 1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
7	8.00 / 10	R SAIKRITI	Through-F	1.00 / 1	Metal Pad 1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
8	9.00 / 10	krishnakiti	Through-F	1.00 / 1	Metal Pad 1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
9	10.00 / 10	smithanar	1S120EC14	Through-F	1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
10	5.00 / 10	1S120EC05	Surface M	0.00 / 1	Metal Pad 1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
11	3.00 / 10	Gagan TS	Gagan TS	None	0.00 / 1	Traces 0.00 / 1	Copper 1.00 / 1	Us
12	4.00 / 10	Sneha Latl	1S120EC14	Through-F	1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
13	10.00 / 10	Thanushri	1S120EC15	Through-F	1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
14	10.00 / 10	Sai Gayath	1s120ec17	Through-F	1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
15	10.00 / 10	Sneha Latl	1S120EC14	Through-F	1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
16	5.00 / 10	10	1S120EC16	Surface M	0.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
17	6.00 / 10	10	1S120EC04	a & b	0.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
18	4.00 / 10	prathimas	1S120EC11	a & b	0.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
19	10.00 / 10	harsithare	1S120EC11	Through-F	1.00 / 1	All Mentio 1.00 / 1	Copper 1.00 / 1	Us
20	5.00 / 10	Tejas Gow	1S120EC15	Surface M	0.00 / 1	Single 0.00 / 1	Silver 0.00 / 1	Us
21	3.00 / 10	Chandana	1S120EC02	Surface M	0.00 / 1	Regions 0.00 / 1	Silver 0.00 / 1	Us

Summary

Question

Individual

Insights

Average
8.3 / 10 points

Median
10 / 10 points

Range
3 - 10 points

Total points distribution

