

**Scale of Heat Strain Score Index (HSSI)**

**Q1 - How do you feel the temperature at your workplace?**

- (a) Very cold (-3)
- (b) Cold (-2)
- (c) Slightly Cool (- 1)
- (d) Normal (0)
- (e) Slightly warm (1)
- (f) Warm (2)
- (g) Very warm (3)

**Q2 - How do you feel the humidity level of your workplace?**

- (a) Dry (a feeling of dryness in my mouth and throat) (-2)
- (b) Appropriate and desirable (0)
- (c) Wet skin (1)
- (d) Clothes sticking to the skin surface (2)
- (e) Clothes partly drenched with sweat (3)
- (f) Clothes fully drenched with sweat (4)

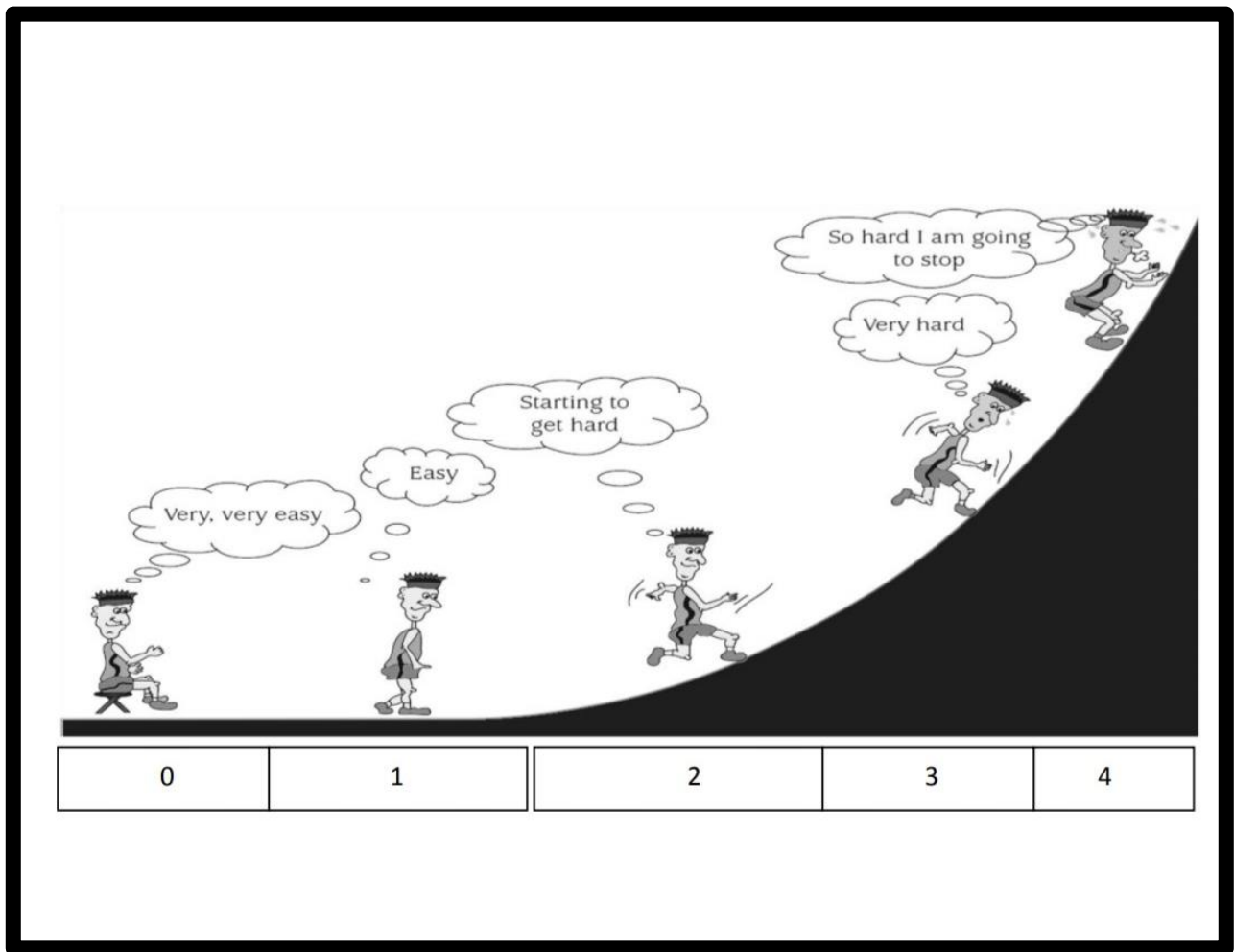
**Q3 - How do you feel the temperature of adjacent surfaces when your hand comes in contact with it?**

- (a) I feel too cold (-3)
- (b) I feel cold (-2)
- (c) I feel cool (-1)
- (d) I do not feel cold or hot (0)
- (e) I feel hot (1)
- (f) Extremely hot to touch (2)
- (g) I feel my skin will get burnt on touching adjacent surfaces (3)

**Q4 - How do you feel the flow of air at your workplace?**

- (a) The existence of cold winds (-3)
- (b) The existence of cold weather (-2)
- (c) Gentle stream of pleasing air (-1)
- (d) Gentle flow of warm air (1)
- (e) Moderate flow of warm air (2)
- (f) Extreme current of hot weather (3)

**Q5 - While you are working, the intensity of physical activity you do is like which of the following conditions?**



**Q6 – How much is the amount of sweating throughout your work shift?**

- (a) I do not sweat (0)
- (b) I feel the sweat on my armpit and groin (1)

- (c) I feel the sweat on my chest and back (2)
- (d) Sweating is so severe that the underwear clothing gets wet (3)
- (e) Sweating is so severe that I feel it on my face (4)
- (f) Sweating is so severe that it is flowing all over my body (5)

**Q7 - How much fatigue you are at work?**

- (a) I'm not tired at all (0)
- (b) I'm a little tired (1)
- (c) I'm tired (2)
- (d) I'm exhausted (3)
- (e) I'm so exhausted that I desire to have a break (4)

**Q8 - How much is the intensity of thirst when you are at work?**

- (a) I don't get thirsty (0)
- (b) I get a little thirsty (1)
- (c) I get thirsty (2)
- (d) I get very thirsty (3)
- (e) I get so thirsty that my mouth and throat get dry. (4)

**Q9 – How much annoyed are you because of the heat at your work place?**

- (a) I'm not annoyed (0)
- (b) I'm a little annoyed (1)
- (c) I'm annoyed (2)
- (d) I'm very annoyed (3)
- (e) I'm so annoyed that I want to quit my job post (4)

**Q10 - How do you feel about the size of working space within the building you are posted?**

- (a) Spacious (0)
- (b) Appropriate common space (1)

(c)Limited cramped space (2)

**Q11 - How is the ventilation system in your workplace?**

(a) Very good ventilation (-1)

(b) Good ventilation (0)

(c)Inadequate ventilation (1)

(d)No ventilation at all (2)

Q12 - In which environments below are you doing your own tasks now?

(a) Outdoors (0)

(b)Indoor (2)

(c)Both (1)

**Q13 - What kind of clothes do you wear at your work place?**

(a)Normal work clothing (underwear+ half shirts and pants) (1)

(b)Full suits (underwear+ full shirt + pants) (2)

(c)Heavy or wool clothing or winter work clothing (underwear + full shirt + pants + jacket/sweater) (3)

(d)Water -proof clothing (underwear + full shirt + pants + raincoat)(5)

(e)Fully enclosed suit with hood and gloves (7)

**Q14 - What color is your work clothing?**

(a) Light colors (e.g. white, cream, yellow, light blue, orange, etc.) (0)

(b) Dark colors (e.g. Black, dark brown, dark red and dark blue) (1)

**Q15 - What material is your work clothing?**

(a) Cotton (1)

(b) Cotton and synthetic fibers (2)

(c)Fireproof and water proof (3)

**Q16 –Which of the personal protective equipment do you use at work place?**

(a) Self-contained breathing apparatus (2)

- (b) Full- face respirator (1.5)
- (c) Half-face respirator (1)
- (d) Water proof boot (1)
- (e) Leather apron (1)
- (f) Anti-dust mask (0.5)
- (g) Face shield (0.5)
- (h) Non cotton gloves (0.5)
- (i) Helmet (0.5)
- (j) Ear muff (0.5)

**Q17 – What is your more often body posture when you are at work?**

- (a) Usually sitting (1)
- (b) Usually standing with low mobility (2)
- (c) Standing with a high mobility (3)
- (d) Usually I am Walking (4)

**Q18 - Now which of the following symptoms do you have while you are working?**

- (a) Mild headache (0.5)
- (b) Dizziness (0.5)
- (c) Weakness (0.5)
- (d) Muscle pain (0.5)
- (e) Red rashes on face (0.5)
- (f) Inability to concentrate (0.5)
- (g) None (0)

## Calculation of Heat Strain score Index

### Total Scores Calculation Sheet

Number of Questions	Primary score	Effect coefficient	Final Score
Q1		0.73	
Q2		0.67	
Q3		0.65	
Q4		0.61	
Q5		0.63	
Q6		0.67	
Q7		0.57	
Q8		0.84	
Q9		0.81	
Q10		0.28	
Q11		0.68	
Q12		0.31	
Q13		0.36	
Q14		0.29	
Q15		0.33	
Q16		0.50	
Q17		0.37	
Q18		0.57	
Total Score			

Evaluation result:

1- The total score which is less than 13.5 indicates that the person has no or low heat strain (Green Zone or safe level).

2- The total score between 13.6 to 18 indicated that there is a potential of heat-induced illnesses occurring and it is needed to further evaluation of heat stress more precisely (Yellow Zone or alarm level)

3- The total score greater than 18 indicated that the onsets of heat-induced illnesses are very likely and appropriate control measures should be taken as soon as possible to reduce heat strain (Red Zone or danger level).