**ANNEX 1**

**Table of Specification**

The Table of Specification (TOS) shall follow the format and the details indicated in Table 1 below:

**Table 1. Sample TOS**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Subject Areas/Topics** | **Time Allocated**  **(Hours)** | **% of Teaching Time** | **Thinking Process Dimensions** | | | | | | **No. of Test Items/Topic** |
| **Knowledge, Skills, Values**  (30%) | | **Application**  (50%) | **Degree of Independence**  (20%) | | |
| Remembering | Understanding | Application | Analyzing | Evaluating | Creating |
| 1. Introduction | 0.5 | 1.3 | - | - | - | - | - | - | - |
| 1. Terms used in machinery spaces and names of machinery and equipment | 1.0 | 2.5 | 1 |  |  |  |  | 1 | 1 |
| 1. Names of machineries and equipment | 1.0 | 2.5 | 1 |  |  |  |  | 1 | 1 |
| 1. Engine-room watch keeping procedures | 10.0 | 25.0 | 1 | 3 | 6 | 1 | 1 | 12 | 12 |
| 1. Safe Working Practices as related to engine room operations | 6.0 | 15.0 | 1 | 1 | 4 | 1 | 1 | 8 | 8 |
| 1. Basic environmental protection procedures | 4.0 | 10.0 |  | 1 | 3 |  | 1 | 5 | 5 |
| 1. Internal communication system | 2.5 | 6.3 |  | 1 | 1 |  | 1 | 3 | 3 |
| 1. Engine-room alarm system | 3.0 | 7.5 |  | 1 | 2 | 1 |  | 4 | 4 |
| 1. Safe operation of boiler | 4.0 | 10.0 | 1 |  | 3 | 1 |  | 5 | 5 |
| 1. Emergency duties | 3.0 | 7.5 | 1 |  | 2 |  | 1 | 4 | 4 |
| 1. Escape routes from machinery spaces | 2.0 | 5.0 |  | 1 | 2 |  |  | 3 | 3 |
| 1. Location of fire-fighting equipment in the machinery spaces | 0.5 | 1.3 |  |  | 1 |  |  | 1 | 1 |
| 1. Use of fire-fighting equipment in the machinery spaces | 2.5 | 6.3 | 1 |  | 1 | 1 |  | 3 | 3 |
| **Total** | **40.0** | **100.0** | **7** | **8** | **25** | **5** | **5** | **50** | **50** |

For purposes of uniformity, the “weight” per subject area will be determined by the time allocated to it e.g. for the topic “*Safe operation of boiler*” we have 4 hours. Using the time allocated per topic, we can compute the Percent (%) of teaching time by applying the following formula:

Time allocated (per topic)

% of teaching time (per topic) = X 100 %

Total Time allocated for the course

Thus, for the topic *Safe operation of boiler*, the % of teaching time is

4 hours

% of teaching time (per topic) = X 100 % = 10 %

40 hours

To compute for the number of test items per topic, the following formula have to be used:

% of teaching time (per topic)

Number of test items per topic = X Total number of test items

100 %

Hence, for the topic *Safe operation of boiler*, the number of items will be:

10 %

Number of test items per topic = X 50 = 5 Test items for this particular topic

100 %

The total number of items per course or module will be determined by Table 2 below. The time allocated for written assessment shall be exclusive of the training hours and this must be reflected in Part B, the Course Timetable.

**Table 2. Minimum number of test items per course.**

|  |  |
| --- | --- |
| **Classification of courses/modules according to training hours** | **The total number of test items should not be less than the following:** |
| 1. Courses or modules with less than 24 training hours | 30 |
| 1. Courses or modules with training hours between 24 and 32 | 40 |
| 1. Courses or modules with training hours between 33 and 40 | 50 |
| 1. Courses or modules with training hours between 41 and 48 | 60 |
| 1. Courses or modules with training hours between 49 and 56 | 70 |
| 1. Courses or modules with training hours between 57 and 64 | 80 |
| 1. Courses or modules with training hours between 65 and 81 | 100 |
| 1. Courses or modules with training hours of 82 or more | 150 |

Note: All theoretical assessments must precede the practical assessments, and trainees are required to pass the former before being permitted to take the latter.