

SUNRISE ONE EXAM

END TERM 1 2021

F1 CHEMISTRY

MARKING SCHEME

1. i) Study of the structure, properties, and composition of matter and the changes that matter undergoes. √ 1

- (ii) Manufacture of drugs to fight diseases√ 1
Manufacture of fertilizers to increase food production√ 1
Manufacture of alternative fabrics like nylon and polyester. √ 1
Manufacture of soap
2. (i) Any substance that alters the body function. √ 1

- (ii) Tobacco√ 1
Alcohol√ 1
Khat√ 1
Bhang
- (iii) Hallucination√ 1
Depression√ 1
Addiction
3. (a). Burette√ 1
Pipette√ 1
Volumetric flask
Syringe
- (b). Glass is used for heating. √ 1
Glass does not react with reagents√ 1 Any two
Glass is easy to clean
Glass is transparent
4. A mass of burning gas√ 1

5. Don't eat in the laboratory√ 1 Any three
Don't run in the laboratory√ 1
Always wait for teachers instruction√ 1
Open doors and window for fresh air
6. (i) A component of two or more substances that are not chemically combined√ 1

- (ii). *Filtering*√ 1
Decanting√ 1

Chemical change	Physical change
(i) Not easily reversible	Are reversible✓ 1
(ii) Always accompanied by heat change	No heat change✓ 1
(iii) Reactants have different masses compared to products formed	No change in mass✓ 1
(iv) Always produce new substance	No new substances formed✓ 1

8. a) Sublimation**1mk**
b) Chromatography**1mk**
c) Fractional Distillation**1mk**
d) Solvent extraction**1mk**
e) Filtration/Decantation**1mk**

9. a) Non luminous✓ 1
b) A – pale blue region✓ 1
B – Green –blue region✓ 1
b) A✓ 1 , it contains completely burnt gases. ✓ 1

10.

Luminous	Non-luminous
i. Produced when air hole is closed.	i. Produced when air hole is open. ✓ 1
ii. Used for lighting.	ii. Used for heating. ✓ 1
iii. Has 4 parts.	iii. Has 3 parts. ✓ 1
iv. Produces soot.	iv. Doesn't produce soot. ✓
v. Fairly hot	v. Very hot✓ 1

11. a) Separating funnel. ✓ 1
b) Water is denser than kerosene. ✓ 1
c) Water and petrol. ✓ 1
Water and oil
Water and diesel } Any one

12. a) Chemical✓ 1
b) Physical ✓ 1
c) Physical✓ 1
d) Chemical ✓ 1
e) Physical ✓ 1

13. i) A: Thermometer✓ 1

- B: Fractionating column✓ 1
C: Lie big condenser✓ 1
- ii) Distillate✓ 1
iii) A to measure the temperature at which the liquids boil. ✓ 1
B condense the vapour back into the flask before the boiling point is reached. ✓ 1
iv) Separating components of crude oil. ✓ 1//
Obtaining oxygen and nitrogen gases from liquefied air.
14. Mortar: ✓ 1 grinding solid substances✓ 1
Desiccator: ✓ 1 Keeping substances free of moisture✓ 1
15. Liquids✓ 1, Solid✓ 1, Gas✓ 1
16. Chemistry teacher✓ 1/Medicine✓ 1/Beautician
17. a) A: Melting ✓ 1 D: Condensation✓ 1
B: Freezing ✓ 1 E: Sublimation✓ 1
C: Evaporation✓ 1 F: deposition✓ 1
b) Alluminium Chloride✓ 1/Iron (III)Chloride✓ 1/iodine/Benzoic acid
18. Add water to the mixture and stir✓ 1
Filter to obtain sand as the residue and salt solution as the filtrate✓ 1
Evaporate the filtrate to obtain salt✓ 1
19. Diagram