

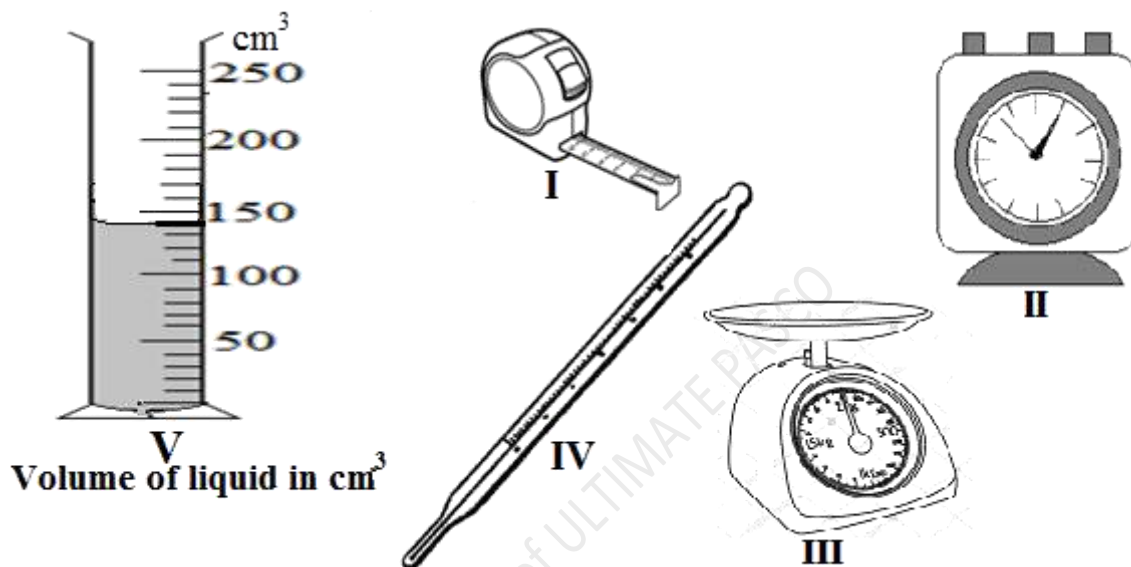
**AGONA PORT D/A BASIC SCHOOL**  
**END OF FIRST TERM EXAMINATION**  
**INTEGRATED SCIENCE – J. H. S ONE (1)**

*This paper is in two parts: I and II. Answer Question 1 in Part I and all other questions in Part II. Credit will be given for clarity of expression and orderly presentation of materials.*

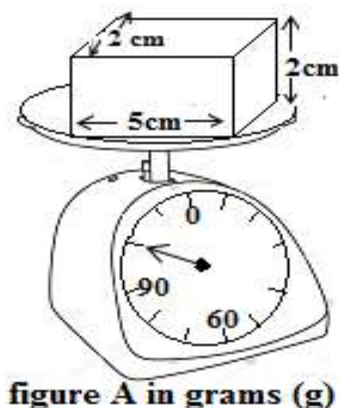
**PART I**  
**[ 40 marks]**

*Answer all questions in this part.*

- 1 (a) The diagrams below show some instruments used in the laboratory. *Study the diagrams carefully and answer the questions that follow:*



- (i) Identify each of the instruments labeled I, II, III, IV.
  - (ii) Name the physical quantity each instrument is used to measure.
  - (iii) Write the S.I unit of each of the physical quantity you have named in (ii) above.
  - (iv) State one use of each of the instruments labeled I, II, III and V.
  - (v) Read and record the volume of the liquid in the instrument labeled V.
- (b) In an experiment to determine the density of a cuboid box, the mass of the cuboid with dimension 5cm by 2cm by 2cm was measured in grams (g) using the weighing scale below:  
*Study the diagram carefully and use it to answer the questions that follow:*



**figure A in grams (g)**

- (i) Describe how you would measure the volume of the cuboid box in figure A.
- (ii) Calculate the volume of the cuboid box in cubic centimeter.
- (iii) Determine the mass of the cuboid box on the weighing scale.
- (iv) Calculate the density of the cuboid box

**PART II**  
**[60 marks]**

*Answer all questions in this part.*

2. (a) What is technology?  
(b) State three (3) differences between science and technology.  
(c) Name three (3) importance of science and technology.
3. a) What is scientific method?  
b) Distinguish between base units and derived units.  
c) Name four (4) steps scientists use to find out about our world.
4. (a) Describe briefly how you would measure the volume of a regular objects.  
(b) A cement block has length 6m, breadth of 4m and height of 10m. Calculate the volume of this cement block.  
(c) Give two (2) reasons why measurement should be accurate.

**OBJECTIVE QUESTIONS – [40 marks]**

*Answer all questions in this section*

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|---|---|
| <ol style="list-style-type: none"><li>1. Science can be defined as a method of obtaining knowledge through.....<br/>A. guess<br/>B. libation and ablution<br/>C. observation and experimentation<br/>D. prayer</li><li>2. Which of the following statements is <i>incorrect</i>?<br/>Natural science is the .....<br/>A. study of living and non- living things<br/>B. study of nature in an orderly way.<br/>C. step by step gathering of knowledge<br/>D. orderly study of human social group.</li><li>3. The space occupied by matter is its.....<br/>A. mass<br/>B. volume<br/>C. weight<br/>D. density</li><li>4. The instrument used to measure temperature is called.....<br/>A. hydrometer<br/>B. manometer<br/>C. barometer<br/>D. thermometer</li><li>5. The method used by scientists to solve problems is known as<br/>A. scientific manipulation<br/>B. natural investigation<br/>C. scientific method</li></ol> | <ol style="list-style-type: none"><li>D. technology research</li><li>6. Which of the following is not a base unit?<br/>A. kelvin                      B. second<br/>C. kilogramme              D. litre</li><li>7. Which of the following statements about science is <i>not</i> correct?<br/>A. Science has helped in the exploitation of natural resources.<br/>B. Science has made communication easier and faster.<br/>C. Science has provided all the solutions to the problems of this world.<br/>D. Science has brought about improved health and education.</li><li>8. A herbalist is a doctor who prepares medicines using plants or parts of plants. The herbalist uses these medicines to cure diseases. Which of the following best describes a herbalist?<br/>i) natural scientist<br/>ii) applied scientists<br/>iii) social scientist<br/>A. i only<br/>B. ii only<br/>C. i and ii only<br/>D. i and iii only</li><li>9. Which of the following may be concerned with the classification of plants?<br/>A. A Biologist</li></ol> |
|---|---|

- B. A Sociologist  
C. A Psychologist  
D. An Anthropologist
10. Which of the following skill is being applied when a student looks at the sky to tell the weather?  
A. Analysis  
B. Measuring  
C. Observation  
D. Experimentation
11. The use of computer to process information is known as  
A. Information Technology  
B. Food Technology  
C. Biotechnology  
D. Pathology
12. The S.I unit for temperature is the ...  
A. degree Fahrenheit  
B. candela  
C. degree Celsius  
D. kelvin
13. Which of the following instrument is used in measuring the volume of liquids?  
A. vernier caliper  
B. meter rule  
C. measuring cylinder  
D. thermometer
14. Which of the following statements about the scientific method is/are **correct**? It provides.....  
I – logical procedure for arriving at knowledge.  
II – knowledge that can be verified.  
III – knowledge that can never change.  
A. I only  
B. I and II only.  
C. I and III only.  
D. II and III only.
15. Which of the following is a base unit?  
A. newton  
B. candel  
C. pascal  
D. square meter
16. The field of natural science that studies the composition of matter is.....  
A. sociology  
B. chemistry  
C. agriculture  
D. physics
17. Science is concerned with the study of .....  
A. the nature of humans  
B. various social vices  
C. things in nature  
D. issues of life
18. The knowledge acquired through the study of science is called.....  
A. scientific method  
B. hypothesis  
C. scientific knowledge  
D. experimentation
19. All the following are products of technology **except**  
A. computer  
B. electric pressing iron  
C. mobile phone  
D. soil
20. Which of the following is a derived unit?  
A. meter  
B. kilogramme  
C. newton  
D. second
21. Which of the following fields of science does not fall under natural science?  
A. Physics  
B. Chemistry  
C. Botany  
D. History
22. Luminous intensity can be measured in.....  
A. mol  
B. ohm  
C. candela  
D. joule
23. Which of the following is a base unit?  
A.  $\text{kg/m}^3$   
B.  $\text{m}^3$   
C. mm  
D. kg
24. Integrated science is the holistic teaching and learning of  
A. few fields of science  
B. special fields of science  
C. one field of science

- D. several fields of science
25. One fields of social science is  
A. Biology      B. Geology  
C. Astronomy    D. Psychology
26. The newton is the unit for measuring.....  
A. volume      B. mass  
C. meter        D. weight
27. The three fundamental units are  
I – meter  
II – second  
III – ohm  
IV – kilogramme  
A. I, II and III  
B. II and III  
C. I, II and IV  
D. II, III and IV
28. Amount of substance can be measured in  
A. mol          B. kelvin  
C. candela     D. newton
29. All the following are examples of units of volumes *except*...  
A. inches  
B. litre  
C. gallon  
D. cubic millimeter.
30. Which of the following is *not* an S.I unit?  
A. Ampere  
B. Centimeter  
C. Meter  
D. Kilogramme
31. The instrument used to measure the distance around school compound is .....  
A. surveyor's tape  
B. ruler  
C. tape measure  
D. micrometer screw gauge
32. Pinto is a student who studies how the structure of the earth looks like. The subject of the study is called  
A. Geology                  B. Meteorology  
C. Agriculture              D. Physics
33. The raising of crops and the rearing of farm animals is called.....  
A. Engineering          B. Medicine
- C. Agriculture              D. Pharmacy
34. Pinto always uses his powerful microscope to study the stars in the sky. Pinto is said to be studying which field of natural science?  
A. Meteorology  
B. Nursing  
C. Astronomy  
D. Geology
35. The step involved in carrying out experiment that tells us about what you see or measure during the experiment is called.....  
A. Conclusion  
B. Method  
C. Observation  
D. Apparatus
36. Which skills of the scientist is Pinto likely to employ when he finds the height of his friends  
A. measuring  
B. communication  
C. observing  
D. analysis
37. An approach to the study of science such that no one field stands on its own is called .....  
A. natural science  
B. applied science  
C. integrated science  
D. pure science
38. Which of the following is equal to a meter?  
A. 1cm                  B. 10cm  
C. 100cm              D. 1000cm
39. The newton is the unit for measuring.....  
A. volume  
B. mass  
C. weight  
D. area
40. The curved surface of liquid in a graduated container is called  
A. manicure  
B. meniscus  
C. volume  
D. eye level