THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

010

QUALIFYING TEST
(For Private Candidates Only)

Time: 3 Hours **Year: 2020**

Instructions

1. This paper consists of sections A and B with a total of **twenty four (24)** questions.
2. Section A consists of **two (2)** parts and section B consists of **three (3)** parts.
3. Answer **all** questions in section A and choose **one (1)** part in section B and answer **all** questions in that part.
4. All questions should be answered in English Language **except** Kiswahili subject in section A part II that should be answered in Kiswahili.
5. Cellular phones, Calculators and any unauthorised materials are **not** allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s).



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SECTION A

PART I: CIVICS (20 Marks)

Answer **all** questions.

1. For each of the items (i) – (v), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer booklet provided.

(i) The following countries have a written constitution **except**

A India B Canada C Britain D France E Germany

(ii) Which of the following constitute a single parent family?

A One of the parent and children
B Parents and a child
C Father, mother and children
D Grandparents, mother and children
E Parent, children and aunt

(iii) The following are union affairs in Tanzania **except**

A citizenship
B defence and security
C aviation and airport
D local Government
E The police force

(iv) Which of the following is the condition for applying for citizenship in Tanzania?

A 18 years of age and above
B 21 years of age and above
C To be registered as refugee
D To stay in Tanzania for one year
E One parent should be Tanzanian

(v) Which of the following is the first generation of human rights?

A Equal pay
B Right to social security
C The right to work
D The right to clean environment
E Freedom of expression

2. Match the items in **List A** by writing the letter of the correct response from **List B** beside the item number in the answer booklet provided.

List A	List B
(i) A voting system whereby people vote for or against specific issues.	A Ballot paper
(ii) A geographical area that people elect their own representative to the Parliament.	B Periodic election
(iii) An election of a **new** member of the Parliament to replace the one who has died or disqualified.	C Polling station
(iv) People who are eligible to vote.	D Referendum
(v) A place where voting takes place.	E By election
	F Electorate
	G Constituency

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3. Complete the following sentences by writing the correct answer in the answer booklet provided.

(i) The Uhuru torch in Tanzania symbolise_____.

(ii) A social skill that enables a person to make decision when facing difficultes is known as _____.

(iii) The Presidential Commission which recommended the reintroduction of Multiparty system in Tanzania in 1992 was known as _____.

(iv) The information conveyed by the green traffic light to road users is_____.

(v) A responsibility or duty that a certain sex is supposed to do in a given society is known as _____.

4. Why is responsible decision making a useful asset in your daily life? Give five points.

PART II: KISWAHILI AND ENGLISH LANGUAGE (40 Marks)

KISWAHILI (Alama 20)

Jibu maswali **yote.**

UFAHAMU

5. Soma kwa makini kifungu cha habari kifuatacho na kisha jibu maswali yanayofuata kwa kuchagua jibu sahihi na kuliandika kwenye kijitabu chako cha kujibia.

Wavuvi walilazimika kusimamisha kazi zao kwa takribani wiki mbili tatu. Hii ilitokana na mtumbwi wao kuharibika ukawa unaingiza maji mengi sana kupitia katika mianya iliyokuwa imejitokeza kwenye maungio ya mbao zake, ingawa kulikuwa na ndau nzuri za kufanyia kazi walizokuwa wakizitumia kukumbia maji lakini uvujaji wa maji ulikuwa mkubwa mno, kiasi kwamba kazi ya kukumba maji hayo ilikuwa haiwezekani. Hata hivyo, tatizo hilo lilitokana na uzembe wa wahusika wenyewe. Wangechukua tahadhari mapema tatizo hilo lisingekuwa kubwa kiasi hicho.

Kutokana na hali hiyo, ikabidi mtumbwi usimamishwe kufanya kazi ili ukakarafatiwe kwanza. Hata hivyo, kazi ya ukarafati yenyewe haikuwa kubwa na isingeweza kuchukua muda mrefu kiasi hicho, lakini kuliibuka mustukeli kidogo. Fundi aliyekuwa anaifanya kazi hiyo aliishiwa na karafati ikabidi waagize nyingine kutoka Tanga. Baada ya karafati kufika fundi alilazimika kuchapusha kazi, kwani walikuwa wamechelewa sana kufanya kazi yao ya uvuvi. Kutokana na kazi kufanywa kwa njia hiyo, baada ya siku sita tu kazi ikawa imemalizika. Kazi yao ya uvuvi ilianza mara moja, hapakuwa na ajizi yoyote.

Walifanya kazi usiku na mchana ili kufidia siku walizopoteza. Aidha, waliamua kuhama kule walikokuwa wakivulia samaki siku zote, wakaenda sehemu nyingine kwa matumaini kwamba wangepata samaki wengi zaidi. Lakini wapi! Hawakupata samaki wengi kama walivyotarajia na baadhi yao wakaandamwa na magonjwa. Wakaamua kurudi kule walikokuzoea na ambako siku zote kulikuwa hakuwatupi mkono.

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At the moment that Bizimana was thinking how she could swim, Muungano was about twenty feet away from her. Bizimana turned back quickly and saw her brother running fast towards her. Bizimana had no option but to get into the river. She got trouble on how to swim. She remembered what she was taught by her teacher on how to swim. She tried to swim but she got tired. At that moment Muungano also jumped into the river and swum fast.

Bizimana was swimming while shouting for help and her voice was so high that, fishermen heard her and thought that there was someone in trouble. Muungano got closer too, and Bizimana lost hope because her brother was good at swimming. Bizimana cried loudly seeking for help as she was tired.

One of the fishermen got into the river to help Bizimana. The fisherman rescued Bizimana and swum with her to the other side of the river. Muungano continued chasing them but he gave up when other fishermen came from the other side of the river. There were seven of them. He was scared and decided to swim back.

Bizimana safely arrived at the other side of the river but she was tired. There were seven fishermen, some of them had no shirts on. Bizimana was scared but she knew she was now in the safe hands of unknown people. "Should I run?", Bizimana asked herself "no, let me see their intention", she thought to herself. One of the fishermen asked her why she was running and who was chasing her.

Bizimana told them that her parents and her brother who was chasing her, wanted her to get married at the age of fourteen. She decided to run away because she wanted to go to school and get married later at the age of twenty seven. The words from Bizimana sunk into Kapapike, one of the fishermen who decided to help her. Kapapike was a married man who had no child despite the fact that he was married for five years. Kapapike took Bizimana to his house and decided to take her to school.

Questions

(a) (i) Who was chasing Bizimana?

(ii) Who came to rescue her?

(b) Why did Bizimana run away from her home?

(c) What have you learnt from the story?

(d) What did Bizimana do after running for a while to avoid her parents?

(e) Why did Muungano give up on chasing Bizimana?

11. For each of the items (i) – (v), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer booklets provided.

(i) She will take lunch _____ 2:00 pm.
A with B at C for
D but E yet

(ii) Ali is my enemy _____ he used to visit my family.
A or B either C with
D neither E but

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(iii) Josephine came home early _____she did not have lessons in the morning.

A for B unless C by

D so E or

(iv) He finished school last month _____he wishes to pass all examinations.

A if B neither C even though

D and E with

(v) I do not eat chicken _____ I eat their eggs.

A unless B with C however

D whether E and

12. Fill in the blank spaces by writing the correct tense of the verbs in brackets.

(a) We (do)_____ a lot of work yesterday.

(b) She (teach)_____ us English Language last year.

(c) The Prime Minister (is)_____in Zanzibar the day before yesterday.

(d) The house maid (set)_____ the table for dinner last Tuesday.

(e) John (sit)_____ for his final examinations last week.

SECTION B

Choose only **one (01)** part and answer **all** questions in that part.

PART 1: GEOGRAPHY AND HISTORY (40 Marks)

GEOGRAPHY (20 Marks)

Answer **all** questions.

13. For each of the items (i)-(x), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer booklet provided.

(i) What is the name of the central body in the solar system?

A Planet. B The sun. C The earth.

D The moon. E Satellite.

(ii) What is the name of the scale of a map which shows measurements in line segments representing units on the ground?

A Linear scale. B Ratio scale. C Small scale.

D Statement scale. E Large scale.

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(iii) Which of the following arrangements show the order in which the four seasons of the year occur?

A Winter, Spring, Autumn and Summer.
B Autumn, Winter, Spring and Summer.
C Spring, Winter, Summer and Autumn.
D Summer, Autumn Winter and Spring.
E Winter, Summer, Spring and Autumn.

(iv) What is the name of the depression of varying sizes where underground water reaches the surface in the desert?

A Stream B River C Lake
D Ocean E Oasis

(v) Which of the following is the negative effect of forest management?

A Provision of employment B Climate change
C Availability of fuel wood D Development of trade activities
E Availability of poles

(vi) Which of the following cereal crops is produced at a large scale in Tanzania?

A Maize B Rice C Millet
D Ground nuts E Beans

(vii) Which mineral is responsible for the production of nuclear power?

A Gold B Copper C Uranium
D Iron E Coal.

(viii) Which of the following is the cheapest way of transporting liquid and gas products over a long distance?

A Road B Air C Animals
D Water E Pipeline

(ix) The minimum temperature recorded in a day is 13° C and the maximum temperature is 36 °C. Calculate the daily range of temperature for the area.

A 13 ° C B 36 ° C C 49 ° C D -13 ° C E 23 ° C

(x) Which of the following is **not** a factor for the existence of manufacturing industries in a country?

A Availability of adequate raw materials
B Presence of good infrastructure
C Inadequate market
D Availability of labour force
E Availability of capital

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14. (a) Write the correct word or words which complete the following sentences:

(i) The person who creates or makes maps is called a_____.

(ii) The precipitation formed as a result of freezing of tinny water droplets to form ice crystals in high temperatures is called_____.

(iii) The addition of unwanted materials into the farm land is known as_____.

(iv) The major elements of weather that determine the climate of a place are_____ and _____.

(v) The seasonal movement of farmers with their livestock away from home in search of pastures is called_____.

(b) Mention four sources of energy used for domestic and industrial activities in Tanzania.

HISTORY (20 Marks)

Answer **all** questions.

15. For each of the items (i – x), choose the correct answer from among the given alternatives and write its letter beside the item number.

(i) Which of the following methods is used by the archaeologist to determine the age of fossils?

A Time graph B Computer C Family tree
D Carbon14 E Time line.

(ii) Which were the two modes of production practiced in Africa before colonialism?

A Feudalism and communism
B Capitalism and feudalism
C Feudalism and primitive communalism
D Primitive communalism and socialism
E Socialism and capitalism

(iii) Which were the major slave markets in East Africa?

A Lamu, Ujiji and Malindi. B Malindi, Bagamoyo and Zanzibar.
C Pemba, Zanzibar and Ujiji. D Kilwa, Mpwapwa and Bagamoyo.
E Zanzibar, Bagamoyo and Mombasa.

(iv) In which trade did the people in the Sudanic states participate?

A Trans – Saharan trade B Trans – Atlantic slave trade
C Local distance trade D Legitimate trade
E East African local trade

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(v) How can you characterise the growing of trees in the same fields where food crops are cultivated?

A Crop rotation B Agro forestry C Intercropping
D Mixed farming E Permanent cultivation.

(vi) Who were the earliest inhabitants of South Africa?

A Cushites B Ngoni C Bantu D Khoisan E Nilotes

(vii) Which of the following is the negative effect of the early contact between East Africa, the Middle East and Far East?

A The rise of coastal city states B Development of Swahili language
C Spread of Islamic religion D Introduction of new architectural design
E Introduction of social stratification

(viii) Which of the following country was founded by Britain as a settlement for freed slaves?

A Sierra Leone B Ethiopia C Liberia D Ghana E Egypt.

(ix) Who was the first human ancestor to move out of Africa to Asia and Europe?

A Homo sapiens B Homo erectus
C Primates D Homo habilis
E Homo sapiens

(x) Which was the first European country to undergo industrial revolution?

A Germany B Britain C Portugal D France E Italy

16. (a) Write the correct word or words which complete(s) the following sentences in the answer booklet provided.

(i) Which treaty whose main aspect was to prohibit the sultan of zanzibar to export slaves outside East Africa?_____.

(ii) The use of channels or pipes to supply water to a piece of land so that crops can grow is known as_____.

(iii) Which kingdom emerged due to the decline of Bunyoro - Kitara kingdom? _____.

(iv) A group of Europeans who came to Africa to confirm the reports provided by traders from their various travels in the interior of Africa during the 19th century were known as_____.

(v) Who argued that among the many individuals who are born, only the strongest or the fittest survive? _____

(b) Explain five positive effects of the regional trade in East Africa.

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PART II: PHYSICS AND BASIC MATHEMATICS (40 Marks)

PHYSICS (20 Marks)

Answer **all** questions.

17. For each of the items (i) - (x), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer booklet provided.

(i) While catching a ball a player extends his hands forward so that he has enough room to let his hands move backwards. What are the quantities which are represented by this example?

A Impulse and time.
B Velocity and momentum.
C Momentum and impulse.
D Momentum and acceleration.
E Force and time.

(ii) What is the name of the force that one surface or object encounters when resting or moving over another?

A Friction B Viscosity C Stretching D Air resistance E Torsion.

(iii) An empty aluminium cup is placed on a digital balance and its mass is measured to be 55.2 g. Water is then added to the cup and it is again placed on the digital balance. If the mass is now 210.5 g , what is the mass of water added to the cup?

A 210.5g B 265.7g C 250.0g D 195.5g E 155.3g.

(iv) Which of the following device utilizes the atmospheric pressure used to draw a liquid from one vessel to another?

A Automatic flushing tank
B The siphon
C The lift pump
D The bicycle pump
E The syringe.

(v) Which of the following pairs of physical quantities have the same meaning?

A Mass and weight.
B Impulse and momentum.
C Energy and power.
D Velocity and speed.
E Latent heat and specific heat capacity.

(vi) What form of energy stimulates the sensation of vision?

A Rays B Beams C Light D Heat E Luminous.

(vii) A body weighs 3.0 N in air. When it is completely immersed in a liquid it weighs 2.2 N. Calculate the upthrust experienced by the body.

A 1.8N B 0.8N C 5.2N D 3.2N E 2.2N.

(viii) Why do metals conduct heat better than non-metals?

A Metals are good conductors of electricity.
B Metals have free electrons while non-metals have no free electrons.
C Molecules are free to move in metals than in non-metals.
D Metals are normally denser than non-metals.
E The crystalline structure of metals is more compact than that of non-metals.

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(ix) An ohmic conductor has a voltage drop of 6 V measured across it. The current flow in the conductor is 2 mA. Determine the resistance of the conductor.

A 3000Ω B 300Ω C 30Ω D 3Ω E 0.3Ω.

(x) Which region around magnetic materials are attracted by the magnet?

A Magnetic lines of force B Magnetic field lines C Magnetic flux
D Magnetic field E Magnetometer

18. (a) (i) Distinguish between heat and temperature.

(ii) Analyze two limitations and two precautions to be taken when using a clinical thermometer.

(b) A relative density bottle has a mass of 18.50 g when empty, 54.50 g when filled with water and 38.30 g when filled with a second liquid. Calculate the density of the second liquid.

(c) A 100 kg gentleman runs up a staircase of 100 steps each 30 cm in 10 seconds. If the gravitational force = 10 N/kg; Find:

(i) the work done against gravity.

(ii) the power developed by the gentleman.

BASIC MATHEMATICS (20 Marks)

Answer **all** questions.

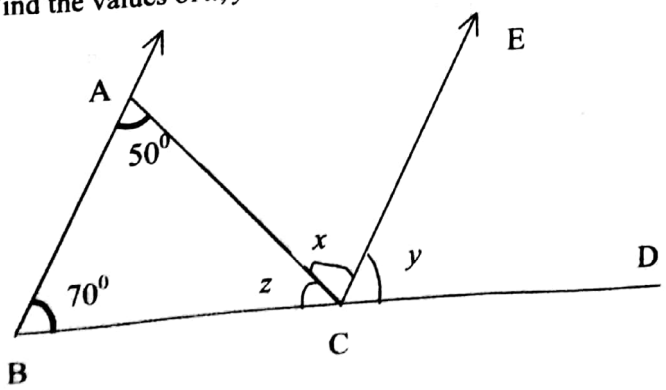
19. (a) Find the Lowest Common Multiple (LCM) of 33, 165 and 105 by the prime factorization method.

(b) Evaluate $\frac{1}{9}+\frac{1}{3}\times\frac{1}{2}-\frac{1}{3}\div 3=$

(c) Change 54 hours into (i) minutes and (ii) seconds.

(d) In 2005, three hundred and fifteen students completed Form Four at Mapinduzi Secondary School. In the year 2008 the number of students increased by 20 percent. How many students completed Form Four in the year 2008?

(e) Find the values of x, y and z in the following figure:



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20. (a) Use the elimination method to solve the following simultaneous equations:

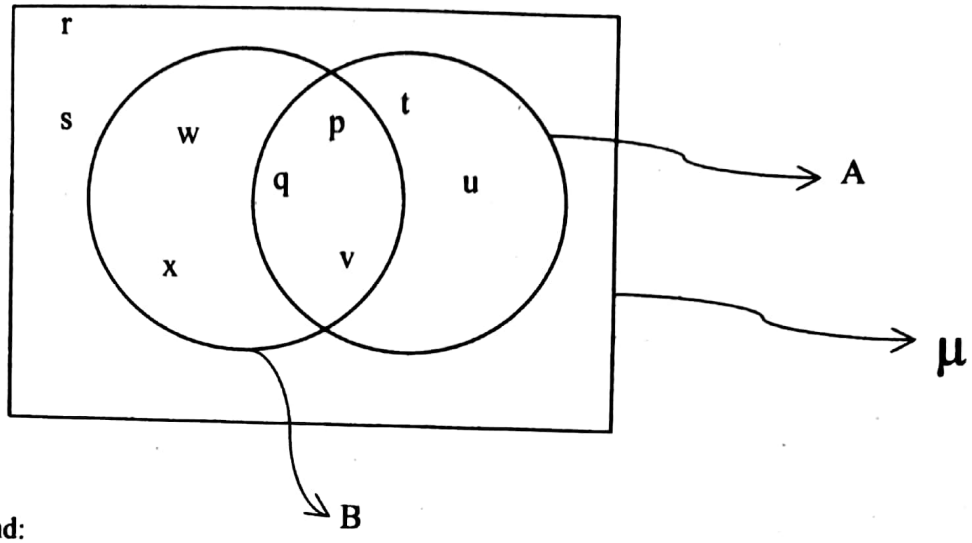
$$\begin{cases} 3x+4y=3 \\ 2x-5y=-5 \end{cases}$$

(b) The area of a trapezium is 300 cm^2. If the parallel sides are 35 cm and 25 cm long, find the height of the trapezium.

(c) A computer costing shs 525,000 is sold at a profit of 20%. What is the selling price?

(d) Find the equation of the line which passes through the points (2, 6) and (0, 3).

(e) Study the following Venn diagram and then answer the questions that follow.



Find:

(i) the elements of set A.

(ii) the elements of set $A \cup B$.

(iii) the elements of set B'.

(iv) $n(\mu)$.

PART III: BIOLOGY AND CHEMISTRY (40 Marks)

BIOLOGY (20 Marks)

Answer **all** questions.

21. (a) For each of the item (i) - (v), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer booklet provided.

(i) Which of the following symptoms appears to a person suffering from Malaria?

A Blood sputum B Sunken eyes C Bleeding

D Periodic fever E Weight loss

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(ii) Which part gives shape and support to the plant cell?

A Cytoplasm B Cell wall C Chloroplast
D Cell membrane E Nucleus

(iii) Which of the following is a distinctive feature of the Kingdom Plantae?

A They have cell wall made of chitin.
B They store food as glycogen.
C They have chrolophyll to make their own food.
D They feed on dead and decayed organic matter.
E They have membrane bound organelles.

(iv) Why red blood cells are important to the human body?

A Remove excess water. B Prevent diseases.
C Helps in blood cloting. D Remove excess food.
E Helps to transport oxgen.

(v) Which of the following apparatuses are used to measure the volume of liquids?

A Beaker and measuring cylinder B Filter funnel and beaker
C Measuring cylinder and test tube D Test tube and beaker
E Measuring cylinder and spatula

(b) Complete the following sentences by writing the correct word or phrases in the answer booklet provided.

(i) An involuntary ejection of substances from the stomach through the mouth is called _____

(ii) Study the following sequence of organism.

Grass → Rabbit → Wolves → Fleas

The sequence is an example of _____

(iii) A Division of the Kingdom Plantae which consists of organism with **no** true leaves, stems and roots is known as _____

(iv) A protozoan disease which can be prevented by killing snails and proper disposal of sewage is called _____

(v) A Form Two student opened a perfume bottle and placed it at the corner of the classroom. After two minutes the smell spread in the whole class. What process was he/she investigating? _____

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22. (a) Match the functions of a leaf in **List A** with the parts in **List B** by writing the letter of the correct response beside the item number in the answer booklet provided.

List A	List B
(i) The part of a leaf involved in transportation of water and mineral salts from the stem to the leaf.	A Stomata
(ii) The upper most thin layer which protects the leaf.	B Cuticle
(iii) A part of a leaf consisting of abundant chlorophyll for photosynthesis to take place.	C Palisade mesophyll
(iv) A pore through which carbondioxide enters into the leaf.	D Epidermis
(v) The part of a leaf responsible for translocation of manufactured food within a plant.	E Xylem
	F Phloem
	G Guard cells

(b) (i) Why fish can not survive when taken from water?

(iii) In three points, explain how anaerobic respiration is applied in industries.

(c) Why toxic substances are dangerous to human beings? Briefly explain.

CHEMISTRY (20 Marks)

Answer **all** questions.

23. (a) For each of the items (i) – (v), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer booklet provided.

(i) Which of the following is the application of chemistry in the field of medicine?

A Vaccine B Fertilizer C Isecticide
D Polish E Pesticide

(ii) What type of a fire is associated with electrical equipment?

A Class E B Class B C Class F
D Class C E Class D

(iii) Which substance should come into contact with iron for rusting to occur?

A Air and fire B Air and water
C Water and oil D Oil and fire
E Water vapour

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(iv) Which of the following is a characteristic of solid particles?
A Packed together but do not have definite size
B Compact packed and have definite shape and size
C Loosely packed with irregular order
D Far apart from one another with regular order/shape
E Closely packed with irregular order/shape.

(v) What causes **burning back** of a bunsen burner to occur?
A Small air hole
B Fully opened air hole
C Closed air hole
D Partially opened air hole
E Adjusted air hole

(b) Fill in the blanks by writing the correct answer in the answer booklet provided.

(i) The materials that catch fire and burn easily are described as _____ _____.

(ii) The three components of fire triangle are heat, fuel and _____ _____.

(iii) The mixture of liquids that do not completely mix with each other and forms smaller droplets when shaken is called_____.

(iv) The process whereby a solid changes its state directly to gas is known as _____.

(v) The first step in the scientific procedure is called _____.

24. (a) What are the five benefits of the changes in the state of matter?

(b) Match the chemical composition of fire extinguisher in **List A** with the corresponding extinguisher in **List B** by writing the letter of the correct response beside the item number in the answer booklet provided.

List A	List B
(i) The extinguisher composed of tap water pressurised by air.	A Dry chemical extinguisher
(ii) The extinguisher composed of fine sodium bicarbonate powder pressurised by nitrogen.	B Carbon dioxide extinguisher
(iii) The extinguisher composed of bromochloro-difluoro-methane.	C Wet chemical extinguisher
(iv) The extinguisher composed of proteins and fluoro-proteins.	D ABC extinguisher
(v) The extinguisher composed of potassium acetate.	E Foam extinguisher
	F Halon extinguisher
	G APW extinguisher

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