This question paper contains 4 printed pages.

75E

Agriculture (Micro-irrigation)

(English version)

Time : 2 hours] ***[Maximum Marks : 30***

NOTE : (1) Answer **all** the questions.

(2) Draw the diagrams wherever necessary.

SECTION - A

I. Select the correct answer & rewrite the sentence. **5×1=5**

1. A pump can be driven by an .....

(A) Electric motor.

(B) Internal combustion engine.

(C) Both 'A' and 'B'.

(D) None of the above.

2. The ..... valve permits flow of water in one direction and prevent reversal flow in piping by means of an Automatic check mechanism.

(A) Air release valve.

(B) Non - return valve.

(C) Flow - control valve.

(D) Bypass valve.

3. It is connected on the submain / mainline for cleaning purpose.

(A) Flush valve.

(B) Bypass valve.

(C) Flow control valve.

(D) None of the above.

4. The commonly used fertigation unit mainly consists of .....
   (A) Venturi injector.
   (B) Fertilizer tank.
   (C) Injector pump.
   (D) All of the above.

5. Emission devices are classified in two categories, they are .....
   (A) Online Emitters.
   (B) Inline Emitters.
   (C) Both A and B.
   (D) None of the above.

II. Match the following. **5×1=5**

1.	Non - return valve	*(a)*	Priming.
2.	Drippers	*(b)*	Make holes on polyethylene tubes.
3.	Punch	*(c)*	Desired water pressure.
4.	Pump	*(d)*	Lift check.
5.	Centrifugal pumps	*(e)*	LLDPE / Poly-propylene.

III. TRUE or FALSE. **5×1=5**

1. Pump is an electromechanical device which lifts water from one level to another level with pressure.

2. Application of water soluble fertilizer through micro-irrigation system is termed as fertigation.

3. Rain guns are different from impact sprinkler.

4. Sprinklers are water lubricated and using oil, grease or any other lubricant may stop them from working.

5. Flow control valve are used to control the flow of water.

SECTION - B

I. Answer the following questions. **5×1=5**

1. Write use of Take off tool.
2. Define Fertigation.
3. Expand the term LLDPE.
4. Enlist the different filters present in Head control unit.
5. Define Priming.

II. Answer **ANY TWO** questions : (Short answers). **2×1=2**

1. Write the function of Tee.
2. Write the function of main pipe.
3. What are benefits of Filters ?
4. What is the use of Bypass valve ?

III. Answer **ANY TWO** questions : (Brief answers). **2×2=4**

1. What is the function of Air release valve ? Where it is installed ?
2. Write about continuous injection and intermittent injection.
3. What are the functions of submain pipe and lateral pipe ?
4. Write Emitter types and uses.

IV. Answer **ANY ONE** question : (Long answers). **1×4=4**

1. Describe the installation of centrifugal pumps.

2. Write the functions of various components of Fertigation unit.

3. Describe Chlorine treatment of drip irrigation systems.
