

**दुग्ध विकास संस्थान**  
**केन्द्रीय कार्यालय, लैनचौर**

संस्थानको सहायक स्तर तह ४ प्राविधिक सेवा “ फोरम्यान ” पदका लागि खुल्ला/आन्तरिक प्रतियोगितात्मक परिक्षाको पाठ्यक्रम ।

यस पाठ्यक्रमको आधारमा निम्नानुसार तीन चरणमा परीक्षा लिइने छ :

प्रथम चरण :

लिखित परीक्षा पूर्णाङ्क : ६०

द्वितीय चरण :

प्रयोगात्मक पूर्णाङ्क : ४०

तेस्रो चरण :

अन्तर्वार्ता पूर्णाङ्क : २०

प्रथम चरणको लिखित परीक्षा योजना :-

विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्या	अंकभार	समय
सेवा सम्बन्धी	६०	२४	वस्तुगत बहुउत्तर Multiple Choice	३०	२ अंक	४५ मिनेट

द्वितीय चरण :-

विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्या	अंकभार	समय
प्रयोगात्मक	४०	१६	प्रयोगात्मक	४	१० अंक	२ घण्टा

तेस्रो चरण :-

विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्या	अंकभार	समय
व्यक्तिगत अन्तर्वार्ता	२०	-	मौखिक	-	-	-

परीक्षाका विषयहरु :-

1. Safety Practices (सुरक्षा विधिहरु)

1.1 Importance of Safety

1.2 Types of Safety

1.2.1 Personal Safety

1.2.2 Machine's Safety

1.2.3 Tools Safety

1.2.4 Workplace Safety

1.3 Knowledge of Industrial safety and hygiene

1.4 Safety tools and devices

## **2. General Workshop Practices (मेकानिकल वर्कशप सम्बन्धी ज्ञान)**

- 1.1 Basic knowledge of measuring system and calculation
- 2. Basic knowledge of measuring tools and equipment
  - 2.2.1 Scale, Try square, Bevel, Protector
  - 2.2.2 Vernier Caliper, Micrometer, Gauges
- 2.3 Basic knowledge of hand tools and special tools used in general mechanical, refrigeration, auto and electrical.
  - 2.3.1 Files, Hacksaw, Chisels, Hammer, Marking Tools, Screwdriver, Wrenches, Torque Wrenches
  - 2.3.2 Tube Cutting, Flaring, Gauge manifold, Vacuum pump
  - 2.3.3 Tester, Multi meter, Clamp on meter
- 2.4 Material Joining
  - 2.4.1 Arc welding – Principle, Tools, Equipment, Welding procedure
  - 2.4.2 Oxygen-acetylene welding – Principle, Tools, Equipment, Procedure
  - 2.4.3 Soldering – Principle, Tools, Equipment, Procedure
- 2.5 Plumbing
  - 2.5.1 Marking, Cutting, Threading, Joining of GI Pipes
  - 2.5.2 Marking, Cutting, Welding Joining of Copper Pipes
  - 2.5.3 Marking, Cutting, Joining and Sealing of PVC Pipes
- 2.6 Basic knowledge of lifting devices used in workshop and their operation
  - 2.6.1 Chain pulley
  - 2.6.2 Jacks
  - 2.6.3 Fork

## **3 Maintenance System (मर्मत सम्भार प्रणाली)**

- 3.1 Importance of maintenance
- 3.2 Basic knowledge of maintenance system
- 3.3 Preventive & Breakdown

## **4. Basic Drawing (आधारभूत ड्राइंग सम्बन्धी ज्ञान)**

- 4.1 Scale and dimensions
- 4.2 Symbols

## **5. Record keeping (अभिलेख रखने कार्य)**

- 5.1 Importance of record keeping
- 5.2 Basic knowledge of maintenance job card
- 5.3 Basic knowledge of operation log sheet

## **6. Fuels and Lubricants (ईंधन तथा लुब्रिकेन्ट्स)**

- 6.1 General knowledge of different types of fuels and lubricants used in machinery, automobiles and generator.
- 6.2 Knowledge of application and changing intervals of lubricants

**7. General knowledge on maintenance of automobiles components**

(अटोमोवाइलका कम्पोनेन्ट मर्मत सम्भार सम्बन्धी साधारण ज्ञान)

7.1 Engine, Gear Box, Clutch, Brake, Differential, Wheels and Axles

7.2 Electrical system, Hydraulic system, Lubrication system, cooling system, Fuel system, Suspension system, Steering system, Instruments and controls.

**8. Basic knowledge of various dairy machineries**

(दूध उत्पादन गर्ने मेशिन सम्बन्धी साधारण ज्ञान)

8.1 Milk Chilling Equipments

8.2 Cream Separator

8.3 Plate Heat Exchanger

8.4 Milk Pump

**9. Basic maintenance based mechanical knowledge on production line/assembling line in Industries. (र्मत सम्भारसंग आधारित उद्योगको प्रोडक्सन र एसेम्बली लाइन सम्बन्धी ज्ञान)**

9.1 Pulleys and conveyer belts

9.2 Pumps

9.3 Refrigeration

9.4 Boiler and Generator