INTERNATIONAL LABOUR ORGANISATION

13TH INTERNATIONAL CONFERENCE OF LABOUR STATISTICIANS
(Geneva, 18 – 29 October 1982)

DESCRIPTIONS OF SELECTED OCCUPATIONS
FOR THE
REVISED ILO OCTOBER INQUIRY ON OCCUPATIONAL WAGES

1 The descriptions provided in this document refer to the occupations listed in Annex I of Report IV: Revision of the ILO October Inquiry on Occupational Wages (ICLS/13/IV).
PART. 1
1. **PLANTATION SUPERVISOR**

Supervises operations in connection with growing, harvesting and marketing of plantation produce and maintenance of machinery, implements and equipment, under direction of plantation manager:

1) assists in examining soil, irrigation facilities, marketing, etc. to determine type of crop to be grown;

2) helps in selection and purchase of seed, fertilisers and equipment and stores them;

3) guides operations of ploughing, manuring, sowing, watering, weeding and hoeing;

4) supervises making of channels for irrigation, preparing manure, grafting and budding of plants, harvesting, threshing, winnowing, etc.;

5) looks after bagging, storing and transporting of produce;

6) controls field staff;

7) assists in preparation of cost and production statement, payment of wages, etc.;

8) attends to any other tasks assigned to him.
AGRICULTURE AND LIVESTOCK PRODUCTION - PLANTATIONS

2. PLANTATION WORKER

Performs a variety of tasks relating to propagation, cultivation and harvesting of plantation products, as for example:

Nursery worker:
Prepares beds in prescribed manner and germinates seeds, etc.; prunes, weeds out wild growth and performs related tasks.

Planting worker:
Prepares land for cultivation, digs holes for planting germinated seeds and plants shade trees to protect plants from heat.

Weeding worker:
Weeds out wild growth around plants using spade, sickle, knife, etc.

Picker, plucker:
Picks ripe berries, leaves, cotton, etc. from plants by hand, cuts off protruding branches of bush using tipping knife and performs a variety of low skilled tasks on plantation.

Tapper:
Cuts channels or grooves on trunk of trees in prescribed manner and gathers sap or juice.

Should be designated according to type of work done and type of plantation, as for example:

Cotton plantation worker
Sugar-cane plantation worker
Vineyard worker
Tea plantation worker
Coffee plantation worker
Rubber plantation worker
Rubber tapper
Tea garden pruner
Palm juice tapper
Tea picker
Coffee picker
Cotton picker
Spice harvester
etc.
FORESTRY

3. FOREST SUPERVISOR

Directly supervises and co-ordinates tree cultivation, conservation and harvesting operations and enforces safety and preservation regulations in forest:

1) Supervises and directs seed harvesting, propagation, and cultivation of young trees in forest nursery, tree planting, thinning, pruning, spraying with insecticides and other pest and disease control activities, and execution of flood control and soil conservation projects.

2) Selects and marks trees for felling and inspects logging operations to ensure conformity with forest exploitation programme.

3) Inspects recreation areas in forest and advises visitors on recreation facilities and safety, sanitary and other regulations.

4) Enforces regulations concerning fire prevention and preservation of wildlife and vegetation in forest.

5) Investigates and reports on accidents, acts of vandalism, thefts and fires occurring in forest.

6) Checks areas to ensure that boundaries are correctly placed and maintained.

7) Supervises revenue collection at forest checking station accounts are properly recorded.
4. **FORESTRY WORKER**

Performs a variety of tasks in the establishing and care of forest stands under the direction of the forest supervisor:

1) Collects, prepares and stores tree seeds.
2) Cleans, ploughs, drains, irrigates, fertilises and otherwise prepares seed beds and afforestation areas.
3) Sows cones, acorns and tree seeds and raises seedlings.
4) Transplants seedlings in afforestation areas.
5) Sprays insecticide, builds fences and performs other tasks to protect trees against insects, diseases and predatory animals.
6) Prunes trees, thins out dense stands and removes damaged timber and excessive undergrowth.
7) Cuts fire lanes and keeps them clear.
LOGGING

5. LOGGER, GENERAL

Fells trees, saws them into logs and performs other logging tasks:

1) Identifies tree to be felled, according to markings or other instructions and clears undergrowth.

2) Fells tree, using axe and powered or hand saw, trims branches and saws trunks into logs.

3) Selects, trims and tops anchor trees for log hauling, attaches hauling tackle and sets up winching equipment.

4) Fastens noose of winching or hauling cable about logs and performs other tasks in skidding or hauling them to transportation point.
6. **TREE FELLER AND Bucker**

Fells trees and saws them into logs, using axe and manual or powered saw, for timber or firewood:

1) Identifies tree to be felled, determines mode of felling (such as cutting through stem, digging out roots from earth, etc.) and direction in which it should fall.

2) Cuts undergrowth from around butt of tree and prepares bed for tree if necessary.

3) Climbs tree and lops off branches using axe, bill hook and hand saw.

4) Attaches ropes or cables to tree, and to anchor tree if necessary, to control direction of fall.

5) Makes V-shaped cut (undercut) in tree on side to which it should fall.

6) Makes saw cut (back cut) on opposite side to undercut and slightly above it.

7) Trims branches from felled tree and saws trunk into logs of required size.

8) Separates usable timber from fuel wood.
7. DEEP-SEA FISHERMAN

Performs a variety of tasks in the catching, storing and unloading of fish caught in deep sea, often working as fishing vessel crew member. Performs some or all of the following:

1) Prepares nets, other fishing tackle and fish bait.

2) Catches fish by trawling nets and trolling lines, laying seines or using other appropriate kinds of deep sea fishing equipment.

3) Sorts catch, stows on ice in refrigerated compartments in hold, or in hold.

4) Washes down deck.

5) Maintains and repairs fishing equipment.

6) Usually performs some duties in operation and maintenance of vessel.

7) Handles equipment to unload fish from vessel.
8. INSHORE (COASTAL) MARITIME FISHERMAN

Performs a variety of tasks in the catching of fish in coastal waters:

1) Repairs fishing tackle, baits hooks, lays nets or sets traps and other devices to catch fish.

2) Catches fish by such methods as laying and anchoring lines, drawing lines through water, laying nets parallel to shore and pulling them onto land, or using spears, fish corrals, traps or fish wheels.

3) Maintains and repairs fishing equipment.
MINER (COAL HEWER, UNDERGROUND)

Hews and/or clears coal, stone and other materials from working faces and headings manually:

1) Hews coal or stone using hand or powered hand tools.
2) Breaks up large lumps of coal with pick.
3) Shovels or lifts on to conveyor or into trams coal got by hand, machine or by blasting
4) Shovels stone and other debris into area from which coal has been removed (waste, gob, goaf).
COAL MINING

10. UNDERGROUND HELPER, LOADER

Performs a variety of low-skilled and routine manual tasks, requiring a minimum of training, little or no previous experience and mainly physical effort:

1) Breaks up large lumps of coal with pick.

2) Loads coal into tubs or mine cars.

3) Loads tubs on tram lines.

4) Shovels stone and other debris into area from which coal has been removed.
Supervises production activities at well-drilling site and controls and co-ordinates the activities of workers at the site engaged in various well-drilling, well pulling, cementing and related occupations, and liaises between workers and senior staff:

1) Studies production programme and estimates manpower requirements.
2) Interprets specifications, blueprints, plans, job orders and determines sequence of operations.
3) Estimates supplies, equipment and materials needed and makes requisitions.
4) Establishes or adjusts work procedures to meet production schedules and assigns duties to workers.
5) Co-ordinates work of unit at well-drilling site with that of other units.
6) Recommends measures to improve production methods, equipment performance and quality of output, and suggests changes in working conditions and use of equipment to increase efficiency.
7) Analyses and resolves work problems.
8) Trains workers.
9) Interprets enterprise policies to workers and enforces safety regulations.
10) Supervises and co-ordinates activities of subordinate foremen.
11) Recommends or initiates personnel action, such as promotions, transfers, discharges and disciplinary measures.
12) Maintains necessary records and registers and submits prescribed returns.
CRUDE PETROLEUM AND NATURAL GAS PRODUCTION
ONSORE/OF S SHORE OPERATIONS
12. DERRICKMAN (OIL AND GAS WELLS)

Sets up and operates derrick equipment and pumps to
circulate mud through drill hole:

1) Sets up pulley supports at top of derrick and strings
cables through pulleys and blocks, to provide means
of raising and lowering pipes and cables.

2) Guides and attaches and detaches lifting equipment to
lower or raise sections of drill pipe into or out of
bore hole.

3) Weighs clay and mixes drilling mud to required
consistency or ensures that it is so mixed.

4) Controls pumps to circulate mud through drill pipe
and bore hole while drilling progresses, to flush it
out or cool drill bit.

5) Assists in other rigging tasks and dismantling
equipment.

6) Maintains and repairs pulleys, blocks and cables.

7) Relieves and assists in supervising other members of
drilling crew.

8) Cleans splashed oil from derrick floor.
13. **Rotary Driller**

Operates rotary drilling plant to drill oil or gas wells:

1) Selects and fixes drill bits according to nature of strata encountered and changes them when blunt or strata change.

2) Checks operation of slush pumps to ensure proper circulation and consistency of drilling mud.

3) Observes pressure gauge and controls pressure and speed of rotation of tools in borehole.

4) Connects and disconnects sections of drill pipe being run into or out of well.

5) Manipulates levers, pedals and brakes to control machinery which supplies power for lowering or raising drill pipe and casing into or out of well.

6) Examines cores or cuttings while drilling to ascertain nature of strata encountered.

7) Uses special tools to retrieve broken drill equipment from bore hole.

8) Caps well or regulates valves to control outflow of oil or gas.

9) Keeps drilling record.
CRUDE PETROLEUM AND NATURAL GAS PRODUCTION
ONSHORE/OFFSHORE OPERATIONS

14. **WELL PULLER**

Cleans and services oil and gas wells and removes, repairs and replaces pumping rods, casings and tubings, and controls flow of oil or gas according to pressure charts:

1) Operates winching or jacking equipment to raise rods, casings and tubings from well.

2) Cleans, straightens and repairs rods, casings and tubings.

3) Places plug device into well to control flow of oil or gas.

4) Lowers and operates special equipment to clear mud and slush from well.

5) Lowers pressure-recording device into well and interprets readings.

6) Lowers special tools to retrieve broken drill equipment from well and to clean casings and tubings.

7) Informs supervisor of defects and repairs done to pump and casing.
CRUDE PETROLEUM AND NATURAL GAS PRODUCTION
ONSHORE/OFFSHORE OPERATIONS
15. OIL AND GAS WELL DRILLING RIGGER

Works as member of crew in erecting and repairing derricks used for drilling oil and gas wells and installing cables, hoisting and drilling equipment:

1) Erects and installs working platform.
2) Selects and places sheave blocks, tackle and cables.
3) Splices cables.
4) Draws cable through sheave blocks.
5) Fastens cables to fixed objects for anchorage.
16. **BUTCHER**

Bones and cuts up carcasses, and prepares carcass sections for processing or in standard meat cuts:

1) Splits carcass by sawing and cleaving.
2) Removes edible offal and washes meat.
3) Cuts, saws and chops carcass into sections for processing or standard or smaller meat cuts, as required.
17. HAND PACKER

Packs meat products by hand in containers such as bags, sacks, bottles, jars, cans, tubes, cartons or boxes for shipment or storage:

1) Examines container and product and rejects any which are defective or otherwise unsuitable.

2) Places container on filling platform or conveyor, or positions it under feed spout or chute.

3) Places or pours product into container, or operates hand controlled mechanism to release specified quantity from feed spout.

4) Where appropriate, wraps product in paper, cellophane or other protective material, or packs product with cushioning material or preserving agent.

5) Checks and adjusts weight of filled containers or quantity of items.

6) Closes and seals packages, and affixes identification tag or label or records identifying information on container.
MANUFACTURE OF DAIRY PRODUCTS

18. DAIRY PRODUCT PROCESSOR, GENERAL

Performs one or more tasks in the preparation of various dairy products, setting up and operating equipment to process milk, cream, and other dairy products, following specified methods and formulae:

1) Connects pipes between vats and processing equipment.
2) Assembles fittings, valves and other parts to equipment to prepare for operation.
3) Turns valves to pump sterilising solution and line water through pipes and equipment.
4) Starts pumps and equipment, observes temperature and pressure gauges, and opens valves to allow milk to flow into homogeniser to produce specified emulsion and through filter to remove sediment.
5) Turns valves to admit steam and water into pipes to pasteurise milk and circulate refrigerant through coils to cool milk.
6) Develops bacterial culture for use in making butter, buttermilk, cheese and other products.
7) Operates equipment to separate cream from milk and make butter.
8) Curdles milk and converts milk into cheese.
9) Records specified time, temperature, pressure and volume readings.
GRAIN MILL PRODUCTS

19. GRAIN MILLER

Operates machinery for processing grain (including rice):

1) Ascertains from instructions quantities and types of grain to be broken down and/or mixed together or husked.
2) Adjusts as necessary and starts machinery, such as cleaners, conveyors, grinders, hammer mills and sifters, and flow of grain to processing equipment.
3) Observes milling process, keeping grain moving at regular rate by tapping dogged spouts with mallet and by adjusting gates.
4) Examines product periodically and adjusts grinder as necessary.
5) Makes blend of flour, meal or feed by regulating flow of ingredients in specified proportions from bins to blending machines.
6) Closes feeder valves and allows machine to empty before changing over to different grain or mixture.
7) Takes samples for laboratory analysis.
8) Keeps records of materials received and products milled.
MANUFACTURE OF BAKERY PRODUCTS

20. OVENMAN

Sets and operates oven to bake bread or flour confectionery products:

1) Arranges sequence of baking to ensure that most economical use is made of ovens.
2) Heats oven to required temperature.
3) Loads or supervises loading of ovens when correct temperature has been reached.
4) Regulates and controls heat and humidity in oven by observing gauges, turning valves and other methods.
5) Notes colour of products during baking to ensure uniformity of finished products.
6) Removes or supervises removal of baked goods from ovens and places them on tiered racks for cooling.
SPINNING, WEAVING, AND FINISHING TEXTILES

21. THREAD AND YARN SPINNER

Operates machine to spin thread and yarn from roving onto spindles or other output packages:

1) Loads spinning machine with bobbins or packages of roving.

2) Threads ends from input packages through guides and drawing rollers and loops them onto spindles or other output packages.

3) Starts machine, observes operation to detect nearly empty input packages, or broken strands of roving or yarn, and repairs them by hand.

4) Replaces exhausted input packages without stopping machine.

5) Cleans and oils machine.
SPINNING, WEAVING AND FINISHING TEXTILES

22. LOOM FIXER, TUNER

Sets, inspects and repairs looms of various kinds:

1) Prepares looms for weaving new pattern or different quality of product, for example, by setting harness, read and dropwires into position and tying warp ends to tail ends of cloth beam and places weft bobbins in shuttle.

2) Operates loom manually to check movements of heald, shuttle and reel and makes necessary adjustments.

3) Hands loom over to weaver for operation.

4) Inspects loom periodically and keeps in good working order.

5) Makes repairs such as putting in new harness straps and replacing worn-out shuttles.

6) Replaces empty warp beams with full ones.
23. **CLOTH WEAVER**

Operates and tends battery of looms to weave yarn into cloth:

1) Starts set-up loom and observes weaving operation.
2) Varies warp tension as required.
3) Stops loom when necessary if breakages or other faults occur.
4) Mends broken thread by hand and rethreads if necessary.
5) Removes defects in cloth by cutting and pulling out filling.
6) Keeps weft shuttles supplied with yarn.
7) Cuts off or marks fabric, or inserts pick of contrasting colour when requisite yardage has been woven.
8) Reports mechanical faults to Loom Fixer.
SPINNING, WEAVING AND FINISHING TEXTILES

24. LABOURER

Performs various manual tasks, requiring a minimum of training and little or no previous experience. Performs one or more of the following tasks:

1) Conveys materials, equipment, goods, etc. about work areas and stacks materials or goods.
2) Opens bales, crates or other containers manually.
3) Assists in setting up machinery and equipment.
4) Prepares equipment such as tools for use.
5) Assists in loading materials on to or into, and unloading finished or processed materials or products from machinery and equipment.
6) Provides general assistance to craftsmen, operators, machine minders, etc. as required.
7) Washes or cleans finished articles or crates or similar containers manually.
8) Paints or fixes identification markings, labels, etc. on products or containers.
9) Clears machine blockages and cleans machinery, equipment and tools.
10) Loads and unloads vehicles, trucks, trolleys, etc.
11) Keeps work areas tidy and clears waste materials and spillages.
12) Disposes of waste materials by bailing, tipping on waste heap, burning, etc.
13) Performs routine tasks in maintenance of premises and grounds such as rough painting, washing windows, etc.
25. **GARMENT CUTTER, EXCEPT LEATHER**

Cuts single or multiple layers of material (other than leather) into parts for making up into clothing, using hand or machine cutting tools or devices:

1) Builds up layers of material as required, affixing marked-out pattern to top layer.

2) Switches on hand cutter or band knife.

3) Guides shears or hand cutter around each pattern piece, or along line marked on lay, or manipulates lay against blade of band knife to cut out garment parts.

4) Cuts notches in edges of parts to mark them for assembly.

5) Removes cut material.
MANUFACTURE OF WEARING APPAREL EXCEPT FOOTWEAR

26. SEWING MACHINE OPERATOR

Operates standard or specialised single- or multiple-needle sewing machine to sew fabric in making garments:

1) Secures suitable needle(s) in machine as necessary.
2) Places bobbins or spools of thread in required colours on machine.
3) Passes thread through machine guides, tensioners and eye(s) of machine needle(s).
4) Adjusts machine to adapt tension and type, depth and size of stitch according to sewing work to be done.
5) Where appropriate, places together fabric parts to be joined.
6) Positions fabric to be sewn under or opposite needle(s) and lowers pressure foot onto material.
7) Starts machine and guides material under needle(s), regulating sewing speed as required.
8) Gathers, hems, reinforces or adds decorative trim to articles.
9) Removes fabric when sewing is completed and cuts thread where necessary.
10) Replaces empty bobbins and damaged needles.
SAWMILLS, PLANING AND OTHER WOOD MILLS

27. SAWMILL SAWYER, GENERAL

Sets and operates one or more different kinds of sawing machines or uses hand saws in a sawmill to cut or trim lumber and wood to specified dimensions on a repetitive basis:

1) Works to cutting list or other instructions.
2) Positions and secures log or planks on machine carriage.
3) Sets machine to cut wood to specifications, adjusting guides and controls according to speed and quality of cut.
4) Operates machine to saw logs into planks, planks into boards of lesser thicknesses or squared logs into boards.
5) Cuts planks and boards to standard lengths and straightens and squares their edges and ends.
6) Examines planks and boards for defects and removes faulty pieces.
7) Offloads or directs offloading of cut planks and boards.
8) Determines when saw blades need replacing.
SAWMILLS, PLANING AND OTHER WOOD MILLS

28. **VENEER CUTTER**

Sets and operates rotary lathe, slicer or other wood-working machine to peel or slice veneer from logs:

1) Directs placing of log on machine and clamps into position.
2) Sets cutting mechanism to cut veneer to specified thickness.
3) Operates machine to cut veneer.
4) Checks thickness of veneer and adjusts cutting mechanism as necessary.
5) Throughout peeling or slicing operation, checks log visually for knots.
6) Stops machine to cut out knots or faulty wood with chisel or axe.
7) Stops machine when log has been reduced to unworkable size.
8) Removes sliced veneer manually from machine.
SAWMILLS, PLANING AND OTHER WOOD MILLS

29. PLYWOOD PRESS OPERATOR

Operates hot-plate press to bond glue-coated veneer sheets together to form plywood of specified thickness:

1) Sets temperature, pressure and timing controls of press according to requirements and releases steam to heat plates.
2) Assembles required number of glue-coated sheets in correct order to form pack(s).
3) Loads veneer sheets and caul boards into press.
4) Operates controls to bring plates of press together and subject veneer sheets to heat and pressure to cure, glue and convert them into plywood.
5) Unloads plywood from press and checks that sheets have been properly bonded.
6) Cleans glue from caul boards.
30. **FURNITURE UPHOLSTERER**

Installs, arranges and secures springs, padding and covering material to furniture frames:

1) **Makes base for seat with canvas bands and burlap.**

2) **Secures metal springs, sponge rubber, animal hair, cotton felt and other padding to seat, back, arms and other parts of furniture.**

3) **Attaches burlap or canvas to base of furniture to conceal springs, and fits castors, where necessary.**

4) **Takes measurements and cuts covering material to required shapes.**

5) **Sews parts together or sends to sewer.**

6) **Aligns material, stretches it over parts to be covered and nails, staples, sews or cements into position.**

7) **Attaches braiding, bindings, skirts or other trimming material to upholstered forms using glue, staples, nails or tacks, or pins them into position for hand sewer.**
31. **CABINETMAKER**

Makes completely wooden articles such as cabinets and furniture, using woodworking machines and power or hand tools:

1) Ascertains job requirements from drawings of articles to be made and other specifications.

2) Selects wood and marks off outline of parts on wood, and cuts out parts.

3) Shapes parts by operations such as cutting, planing and turning, using a variety of woodworking tools and machines.

4) Trims joints to make them fit together snugly.

5) Finishes inside portions which cannot be worked after assembly.

6) Glues joints, fits parts together and clamps them until glue is dry.

7) Drives nails, dowels or screws through joints to reinforce them.

8) Fits subassemblies and other parts together to form completed unit.

9) Finishes article, attaching trim, applying veneer, stain or polish and installing hardware such as hinges, locks and drawer pulls.

10) Sharpens own tools.
32. FRENCH POLISHER, HAND

Prepares wood surfaces for polishing and stains and polishes prepared surfaces by hand:

1) Rubs down surface to be polished, using abrasive paper.

2) Applies stain of appropriate colour to surface by brush or pad.

3) Fills dents in porous grain with appropriately coloured filling composition.

4) Rubs down surface to remove excess filler.

5) Applies first coat of polish to surface using cloth pad.

6) Applies further coats of polish and works surface with rubber (cloth pad) until required finish is obtained.

7) Rubs down polished surface gently between applications of polish using abrasive paper or sprinkles abrasive powder on surface and rubs down powdered surface.
33. **WOOD GRINDER**

Operates power-driven machine to grind logs or wood blocks into fibre used in making paper pulp:

1) Adjusts distance between grinding stones in machine and sets pressure of hydraulic pistons.

2) Throws wood into grinder pocket and activates hydraulic piston that presses wood against revolving grindstones, or tends conveyor that feeds wood to machine hopper.

3) Sets water sprays to cool grindstones and control consistency of pulp.

4) Turns hand wheel to regulate flow of pulp from discharge end of machine.

5) Observes temperature gauges or colour of pulp for evidence of burns caused by faulty grindstones.

6) Loosens jammed blocks or logs.

7) Notifies supervisor if repair is necessary.

8) Performs cleaning tasks as directed.
MANUFACTURE OF PULP, PAPER AND PAPERBOARD

34. PAPER-MAKING-MACHINE OPERATOR (WET END)

Operates section of machine in which wet pulp is formed into paper:

1) Examines job specifications.
2) Starts and regulates flow of stuff from storage chest through rotary screens to machine.
3) Adds water as necessary to thin stuff.
4) Sets machine controls for width, thickness and moisture content of paper required.
5) Removes dirt and other foreign matter from screens and regulates flow of stuff to wire-mesh belt.
6) Co-ordinates speed of belt and flow of stuff to obtain paper of desired weight.
7) Threads formed paper between press rolls.
8) Ensures that formed web for consolidation into paper is fed correctly through to drying section of machine.
9) Feels pulp web to test texture and examines samples of finished paper, and adjusts controls as necessary.
10) Marks defective portions of paper for removal at reel.
11) Cleans machine and ancillary equipment and replaces worn or damaged wire mesh belts or moulds, felts and rollers, or directs performance of these two tasks.
12) Supervises machine crew drying, sizing, calendering, winding and cutting paper.
PRINTING, PUBLISHING AND ALLIED INDUSTRIES

35. **HAND COMPOSITOR**

Sets type by hand for printing:

1) Examines manuscript or other specifications to determine length of lines and type to be used.
2) Adjusts guide in composing stick to required length of lines.
3) Reads copy, selects appropriate type and arranges it in stick and inserts spaces to form lines.
4) Places leads between lines.
5) Slides lines onto galley when composing stick is full or when set up is complete and passes galley on for proof printing.
6) Examines corrected proof, makes necessary alterations to type or set-up and sends to press man.
7) Distributes type into proper compartments after use.
36. **MACHINE COMPOSITOR**

Sets and arranges printing type by machine:

**LINOTYPE OPERATOR**

Operates keyboard of machine which selects corresponding matrices of letters from magazines, assembles them in lines and automatically casts a strip of type for each line.

**MONOTYPE KEYBOARD OPERATOR**

Operates keyboard of machine to convert text in typescript or other manuscript form into justified or unjustified perforated strips of paper for use in monotype casting machine.

**COMPUTER KAYBOARD OPERATOR**

Operates keyboard to feed typescript or manuscript copy and details of printing specifications directly onto computer which produces tape to control the operation of a typecasting machine.

**TYPEWRITER KEYBOARD OPERATOR**

Operates keyboard of composing typewriter to produce a camera-ready master copy of printing matter or data tape to be used as input to producing camera-ready copy or to a computer.

**FILMSETTER KEYBOARD OPERATOR**

Operates keyboard to feed typescript or manuscript copy and details of printing specifications directly into filmsetting machine to reproduce type characters on film or sensitised paper.
PRESS OPERATOR

Sets and operates various types of machines which print on paper and other materials:

CYLINDER PRESSMAN

Sets and operates a printing machine in which separate sheets of paper are pressed by means of cylinder on inked type locked on flat surface.

PLATEN PRESSMAN

Sets and operates platen-type printing press to produce printed material.

ROTARY PRESSMAN

Sets and operates a printing machine in which a continuous roll of paper is printed by means of stereotyped plates locked in revolving cylinder.

OFFSET PRESSMAN

Sets and operates a machine in which separate sheets of paper or other material are printed by roller which obtains an ink impression from engraved plate.

DIRECT LITHOGRAPHIC PRESSMAN

Sets and operates machine in which sheets of paper or other materials are printed directly from prepared lithographic stone.

ROTOGRAVURE PRESSMAN

Sets and operates machine which prints on continuous roll of paper from photo-engraved plates or cylinders upon which subject matter is etched below the surface.

GENERAL

1) Cleans inking rollers and replaces them in machine.
2) Fills ink fountains and regulates flow of ink on inking rollers.
3) Locks type or printing plates in position.
4) Loads paper rolls on machine and threads paper through machine guides and rollers, and sets and adjusts paper guides.
5) Runs off proof sheets or makes trial run and checks legibility and uniformity.
6) Makes adjustments until evenly printed copy is obtained.
7) Starts press and ensures that printing proceeds correctly and that folding and cutting proceeds correctly.
PRINTING, PUBLISHING AND ALLIED INDUSTRIES

38. BOOKBINDER, MACHINE SEWING

Performs series of tasks in binding books with machines:

1) Sews together signatures to form book bodies with sewing machine.

2) Compresses sewn-together signatures of book bodies to uniform thickness with smashing machine.

3) Trims books to size with powered cutting machine.

4) Guilds or marbles edges of pages as necessary.

5) Inserts each book into machine which rounds back and forms grooves at back edge in which covers are hinged.

6) Stacks and aligns books and glues super-lining and back-lining on each book.

7) Glues cover to end sheets and places books in press to dry.
39. **LABOURER, UNSKILLED**

Performs one or more manual tasks requiring a minimum of training, little or no previous experience and mainly physical effort:

1) Conveys materials, equipment, goods, etc. about work areas and stacks materials or goods.

2) Opens bales, crates or other containers manually.

3) Assists in setting up machinery or equipment.

4) Assists in loading materials on to or into and unloading finished or processed materials or products from machinery or equipment.

5) Provides general assistance to craftsmen, operators, machinery minders, etc. as required.

6) Washes or cleans parts, components or finished articles or crates or similar containers manually.

7) Clears machine blockages and cleans machinery, equipment and tools.

8) Loads and unloads vehicles, trucks, trolleys, etc.

9) Keeps work areas tidy and clears waste materials and spillages.

10) Disposes of waste materials by baling, tipping on waste heap, burning, etc.

11) Performs routine tasks in the maintenance of premises such as rough painting, washing windows, etc.
MANUFACTURE OF SYNTHETIC RESINS, PLASTIC MATERIALS
AND MAN-MADE FIBRES, EXCEPT GLASS

40. SUPERVISOR AND GENERAL FOREMAN

Supervises the production activities of a distinct unit within an establishment concerned with the production of synthetic resins, plastic materials and man-made fibres, except glass, and controls and co-ordinates activities of workers in this unit engaged in various occupations:

1) Studies production programme and estimates manpower requirements.
2) Interprets specifications and job orders and determines sequence of operations.
3) Estimates supplies and materials needed and makes requisitions.
4) Establishes or adjusts work procedures to meet production schedules and assigns duties to workers.
5) Co-ordinates work of unit with that of other production units within the establishment.
6) Recommends measures to improve production methods, equipment performance and quality of product and suggests changes in working conditions and use of equipment to increase efficiency.
7) Analyses and resolves work problems.
8) Interprets enterprise policy to workers and enforces safety regulations.
9) Supervises and co-ordinates the activities of subordinate foremen.
10) Recommends or initiates personnel action, such as promotion, transfers, discharges and disciplinary measures.
41. **MIXING- AND BLENDING-MACHINE OPERATOR (MIXER)**

Operates machine in which solids or liquids used in chemical and related processes are mixed or blended according to formula to make chemical products:

1) Loads prescribed quantities of materials into machine container by hand or by operating valves, pumps or other mechanical loaders.

2) Starts machine agitator to mix materials.

3) Adds further ingredients to mixture as required.

4) Stops machine when mixing process is completed.

5) Removes mixture from machine container by hand or by operating valves or pumps.

6) Prepares machine for fresh run.
MANUFACTURE OF SYNTHETIC RESINS, PLASTIC MATERIALS AND MAN-MADE FIBRES, EXCEPT GLASS

42. LABOURER, UNSKILLED

Performs one or more manual tasks requiring a minimum of training, little or no previous experience and mainly physical effort:

1) Conveys materials, equipment, goods, etc. about work areas and stacks materials or goods.
2) Opens bales, crates or other containers manually.
3) Assists in setting up machinery or equipment.
4) Assists in loading materials onto or into and unloading finished or processed materials or products from machinery or equipment.
5) Provides general assistance to craftsmen, operators, machinery minders, etc. as required.
6) Washes or cleans parts, components or finished articles or crates or similar containers manually.
7) Clears machine blockages and cleans machinery, equipment and tools.
8) Loads and unloads vehicles, trucks, trolleys, etc.
9) Keeps work areas tidy and clears waste materials and spillages.
10) Disposes of waste materials by baling, tipping on waste heap, burning, etc.
11) Performs routine tasks in the maintenance of premises such as rough painting, washing windows, etc.
MANUFACTURE OF DRUGS AND MEDICINES

43. MIXING- AND BLENDING-MACHINE OPERATOR

Operates machine in which solids or liquids used in chemical and related processes are mixed or blended according to formula to make chemical products:

1) Loads prescribed quantities of materials into machine container by hand or by operating valves, pumps or other mechanical loaders.
2) Starts machine agitator to mix materials.
3) Adds further ingredients to mixture as required.
4) Stops machine when mixing process is completed.
5) Removes mixture from machine container by hand or by operating valves or pumps.
6) Prepares machine for fresh run.
MANUFACTURE OF DRUGS AND MEDICINES

44. PACKER

a) HAND PACKER

Fills containers such as ampoules, tubes, bottles, carboys, drums, cans, barrels, bags or sacks by hand with chemical, pharmaceutical or allied products for shipment or storage:

1) Examines containers and rejects any which are defective or otherwise unsuitable.

2) Places or pours product into container by hand using weighing or measuring aid, or positions container under feed spout or chute and operates hand-controlled mechanism to fill container with specified quantity of product.

3) Caps or seals containers by hand, machine or by heat application.

4) Complies with safety regulations when handling dangerous or poisonous substances.

b) MACHINE PACKER

Operates a machine to carry out one or more tasks in wrapping, packing or bottling chemical, pharmaceutical or allied products for shipment or storage:

- WRAPPING MACHINE ATTENDANT

1) Loads hopper of machine with items to be wrapped or places items on conveyor or on bed of machine.

2) Loads machine with wrapping materials and threads leading end through feed and tension rollers.

3) Keeps machine supplied with glue or sealing compound.

4) Switches on heating device to cut and/or fuse wrapping material.

5) Starts machine and watches operation.

6) Clears blockages and adjusts mechanisms as necessary.

7) Examines wrapped products and removes damaged packages.

- CONTAINER FILLER (excluding bottles, jars and cans)

1) Loads machine with packaging materials and containers such as cartons, carton blanks, boxes, cups, and with cellophane, plastic film, adhesive, adhesive tape and twine.

2) Positions container on conveyor or under filling spout or inserts filling spout in container.
3) Starts machine and watches filling or operates control to release flow from filling spout.
4) Stops machine to clear blockages.
5) Adjusts mechanism to regulate package forming, filling or sealing as necessary.
6) Places lid on container or operates sealing device.
7) Removes filled container, and stacks or crates them.

- **BOTTLING MACHINE ATTENDANT**

1) Examines containers and rejects any which are defective or dirty.
2) Feeds bottles to washing or sterilising plant.
3) Places containers on filling platform or on conveyor belt and watches positioning at filling nozzle or spout.
4) Stops machine if necessary to clear blockages.
5) Places caps or stoppers on containers or watches machine capping.
6) Removes and stacks or crates filled containers.
MANUFACTURE OF DRUGS AND MEDECINES

45. LABOURER, UNSKILLED

Performs one or more manual tasks requiring a minimum of training, little or no previous experience and mainly physical effort:

1) Conveys materials, equipment, goods, etc. about work areas and stacks materials or goods.
2) Opens bales, crates or other containers manually.
3) Assists in setting up machinery or equipment.
4) Assists in loading materials onto or into and unloading finished or processed materials or products from machinery or equipment.
5) Provides general assistance to craftsmen, operators, machinery minders, etc. as required.
6) Washes or cleans parts, components or finished articles or crates or similar containers manually.
7) Clears machine blockages and cleans machinery, equipment and tools.
8) Loads and unloads vehicles, trucks, trolleys, etc.
9) Keeps work areas tidy and clears waste materials and spillages.
10) Disposes of waste materials by baling, tipping on waste heap, burning, etc.
11) Performs routine tasks in the maintenance of premises such as rough painting, washing windows, etc.
Pumpman

Operates steam or electrically driven pumps and manifold systems to circulate crude, semi-processed and finished petroleum products, water and chemical solutions through processing, storage and shipping departments of refinery according to schedules:

1) Reads operating schedules or instructions, and plans movement of products through lines to processing and storage units, utilising knowledge of interconnections and capacities of pipelines, valve manifolds, pumps and tankage.

2) Synchronises activities with other pump houses to assure continuous flow of products and minimum contamination between products.

3) Starts pumps, observes flow and pressure meters and adjusts pumping rates as necessary.

4) Turns hand wheels to open or close tanks and pipeline valves to direct flow of products.

5) Observes operation of pumping equipment to detect defects and leakages.

6) Signals workers to operate pumps in designated units to open and close pipeline and tank valves.

7) Maintains and repairs pumping equipment.

8) Ascertains levels in tanks with gauging tape.

9) Records operating data, such as products and quantities pumped, stocks used, gauging results and operating time.
PETROLEUM REFINERIES

47. BLENDER

Operates equipment to blend petrol with chemicals and other additives to produce commercial fuel according to formula:

1) Examines blending schedules specifying components and quantities to be blended.

2) Opens valves and starts pumps or notifies Bumpman to transfer petrol to blending tanks.

3) Computes required amounts of additives or sets weighing machine that automatically weighs quantities of additives in ratio to quantity of petrol.

4) Opens valves and spray jets to admit and circulate specified quantities of petrol, additives and chemicals in mixing tanks.

5) Controls pumps, agitators and mixers to blend mixtures mechanically or with air agitator.

6) Observes temperature gauges and regulates temperatures in tank as required.

7) Draws sample of mixture for laboratory analysis.

8) Repeats blending process as required by laboratory or starts pumps to draw off blended gasoline to storage tanks or leading racks.

9) Opens valves to draw off chemical and lead residue.

10) Records quantity blended and materials used.

11) Maintains and repairs pumps, agitators and mixers.
48. **BLAST FURNACEMAN (ORE SMELTING)**

Controls the operation of a blast furnace to smelt iron ore for the production of ferrous metal:

1) Orders furnace to be charged with raw materials such as coke, flux and ore in alternate layers.

2) Operates battery of stoves to supply heated air blast to blast furnace.

3) Observes colour of molten metal and reads pyrometer to determine temperature and adjusts controls to regulate temperature or pressure.

4) Determines when melt is ready, directs positioning of ladles and taps furnace by breaking clay plug of tap hole.

5) Opens gates and shutters to direct flow of molten metal or slag along runners into ladle.

6) Plugs taphole after ladles are filled, using mud-gun and relines runners with refractory material.

7) Obtains samples of molten metal for laboratory analysis or estimates and records percentage of sulphur and silicon in iron by observing sample of iron as it cools and by observing slag formation.

8) Directs helpers performing the more routine furnace-tending tasks.
IRON AND STEEL BASIC INDUSTRIES

49. **HOT ROLLER (STEEL)**

Operates rolling mill to shape hot steel ingots into blooms, slabs, billets or sheet bars for further processing, or to shape heated semi-finished steel pieces into bars, angles, ties, rails, sheets or other finished forms:

1) Interprets written or verbal instructions and determines procedure of work, and calculates required space between rolls for each stand, rolls' tension, rolling speed, number of passes, etc.

2) Sets or directs setting of rolls and mill and conveyor speeds, and regulation of water sprays as required.

3) Gives signal for rolling to start and observes operation of mill, inspects products during rolling, and directs adjustment of controls as necessary.

4) Examines and measures finished products for conformity with specifications.

5) Directs cleaning and changing of rolls.

6) Supervises workers who assist in the operation and mechanical control of rolling mills.
IRON AND STEEL BASIC INDUSTRIES

50. COLD ROLLER (STEEL)

Operates rolling mill to reduce cold steel strip or sheet to required gauge and impart desired surface finish:

1) Interprets written or verbal instructions and determines procedure of work, calculates required space between rolls for each stand, rolls' tension, rolling speed, number of passes, etc.

2) Supervises loading of coiled strip or sheet on uncoiling mechanism.

3) Ensures that strip is correctly threaded through mill and fixed round recoiling mechanism at delivery end.

4) Sets or directs setting of rolls and mill conveyor speeds and regulation of water sprays.

5) Starts or gives signal for rolling to start.

6) Observes operation of mill, inspects products during rolling and directs adjustment of controls as necessary.

7) Examines and measures finished product for conformity with specifications.

8) Directs cleaning and changing of rolls.
IRON AND STEEL BASIC INDUSTRIES

51. METAL MELTER

Operates furnace to melt ferrous metals prior to casting or further processing, and performs related tasks:

a) METAL MELTING FURNACEMAN (except Cupola)

1) Directs charging of electric-arc, crucible, reverberatory or other furnace (except Cupola).

2) Fires furnace or switches on current and adjusts furnace controls to build up and maintain required temperature.

3) Ascertains temperature from colour of melt and by using pyrometer.

4) Determines when melt is ready for casting and taps or tilts furnace to run or pour metal into ladle.

5) Directs helpers performing the more routine furnace tending tasks.

b) CUPOLA FURNACEMAN

1) Lines bottom and lower parts of furnace with sand.

2) Prepares and lights initial charge (coke and kindling wood) on bottom of furnace.

3) Orders furnace to be charged with metal, coke and flux in alternate layers.

4) Starts blower supplying air blast.

5) Observes molten metal dripping into base of furnace.

6) Withdraws clay plug from tap hole, when required level has been reached, to allow molten metal to run into ladle.

7) Blocks tap-hole with clay plug to stop flow when ladle is full.

8) Opens bottom doors of furnace to allow remaining slag, metal and coke to drop onto floor.

9) Chips off cinders and slag from furnace walls and repairs burned parts of wall lining with a mixture of fireclay and water.

10) Directs helpers performing the more routine furnace tending activities.
52. **Annealer**

Heats metal objects in furnace to a given temperature and cools them at predetermined rate to relieve internal stresses, restore ductility and refine grain structure:

1) Ascertains from job instructions and charts, temperature and heating time required.
2) Places objects in furnace.
3) Turns on fuel supply to equipment and lights or adjusts burners, or switches on electric current.
4) Sets controls to raise furnace temperature gradually to desired level, according to type and size of materials.
5) Checks temperature, using pyrometer, and adjusts controls as necessary to maintain temperature for specified length of time.
6) If heating in controlled atmosphere, operates controls to admit supply of gas.
7) Regulates controls to allow objects to cool slowly in furnace, or removes objects from furnace to cool slowly in air.
IRON AND STEEL BASIC INDUSTRIES

53. LABOURER, UNSKILLED

Performs one or more manual tasks requiring a minimum of training, little or no previous experience and mainly physical effort; assists skilled workers generally:

1) Conveys materials, equipment, goods, etc. about work areas and stacks materials or goods.

2) Opens bales, crates or other containers manually.

3) Assists in setting up machinery or equipment.

4) Assists in loading materials onto or into and unloading finished or processed materials or products from machinery or equipment.

5) Provides general assistance to craftsmen, operators, machinery minders, etc. as required.

6) Washes or cleans parts, components or finished articles or crates or similar containers manually.

7) Clears machine blockages and cleans machinery, equipment and tools.

8) Loads and unloads vehicles, trucks, trolleys, etc.

9) Keeps work areas tidy and clears waste materials and spillages.

10) Disposes of waste materials by baling, tipping on waste heap, burning, etc.

11) Performs routine tasks in the maintenance of premises such as rough painting, washing windows, etc.
MANUFACTURE OF STRUCTURAL METAL PRODUCTS

54. METAL-WORKING MACHINE SETTER, GENERAL

Sets up various types of power driven precision metal-working machines, such as lathes, milling, boring, drilling and grinding machines to be operated or attended by other workers:

1) Examines drawings and other specifications and determines sequence and method of operations to be carried out.

2) Measures and marks necessary reference points.

3) Fastens cutting or grinding tool(s) in position on machine, using chucks, jigs and other fixtures as required.

4) Adjusts machine table, guides, stops and other controls to ensure tool(s) will cut or grind metal according to specifications.

5) Selects speed for rotary or other movement of workpiece or of cutting tool(s).

6) Starts and operates machine to obtain sample.

7) Checks work with measuring instruments and makes necessary adjustments to machine setting.

8) Hands machine over to operator when it is set, with instructions for operation.

9) Changes tools and resets machine for operator as necessary.
55. **WELDER, GENERAL**

Welds metal parts by means of oxy-acetylene, other gas flame or electric arc:

1) Ascertainment of job requirements from drawings and other specifications.

2) Examines parts to be welded to determine best method to use.

3) Places parts (workpieces) in position.

4) Selects torch nozzle and attaches it to blowpipe, or selects electrode and inserts it into portable holder.

5) Lights torch and adjusts flame by regulating flow of gases, or connects welding unit cable to workpiece and switches on power supply.

6) Heats parts until they begin to melt and fuses them by applying molten metal from a welding rod, or holds electrode a short distance from workpiece to form electric arc, adjusting voltage or amperage as necessary.

7) Runs flame and welding rod along joint, or guides electrode along line of weld to deposit metal from electrode and fuse parts together and regulates supply of electricity to control deposit of metal.

8) Allows metal to cool, cleans and smooths welded parts, examines weld visually and rectifies any defects.
56. **FLAME CUTTER, HAND**

Cuts, trims and shapes metal by means of oxy-acetylene or other gas flame:

1) Ascertains job requirements from drawings and other specifications.
2) Positions and secures metal to be cut on table or in fixture as required.
3) Connects torch hoses to gas containers.
4) Selects and fits appropriate tip into torch nozzle.
5) Turns on gas flow and lights torch and adjusts flame by regulating flow of gases.
6) Guides torch along cutting line to melt and remove a narrow strip of the metal, thus cutting the workpiece.
7) Checks finished work and cleans edges of cuts as required.
Manufacture of Special Industrial Machinery Except Metal and Wood-Working Machinery

57. **Bench Moulder (Iron Moulder, Hand, Bench)**

Makes sand moulds by hand on a bench for small metal castings:

1) Sets half pattern in bottom half of moulding box (drag) on bench, packs fine sand or loam around pattern face, fills box with coarser sand and rams it in with hand tools.

2) Turns box over, removes base and dusts surface of drag with parting powder.

3) Fits and secures other half of pattern to first half, fixes top half of moulding box (cope) to drag and repeats sand packing, filling and ramming to complete mould.

4) Separates drag and cope, removes pattern and repairs damaged mould surfaces.

5) Cuts channels for pouring metal into mould.

6) Dries mould halves and applies refractory bonding solution as required.

7) Positions cores in mould, rejoins and secures drag and cope, fixes channel funnel and lines it with protective sand.
58. Wooden Pattern Maker

Constructs wooden patterns using hand or power tools for use in making mould for metal casting:

1) Studies drawings or samples and specifications, and prepares as necessary full-scale drawings.

2) Selects wood according to type of mould required and lays out pattern on wood stock.

3) Cuts and shapes parts by sawing, planing, chiselling and turning, using wood-working machines and hand tools.

4) Fits and fastens parts together, using glue, nails, screws and dowels to form complete pattern or section of pattern.

5) Checks dimensions of pattern using various measuring instruments, and builds up undersized portions by mailing and screwing cardboard, thin pieces of mailing cardboard, or by applying putty as required.

6) Fills superfluous holes with molten sealing wax or with any other filling.

7) Trims and smooths pattern.

8) Sharpens own tools.
MANUFACTURE OF SPECIAL INDUSTRIAL MACHINERY EXCEPT METAL AND WOOD-WORKING MACHINERY

59. **MACHINERY FITTER-ASSEMBLER, GENERAL**

Fits and assembles fabricated parts and/or sub-assemblies in the manufacture of machinery, engines and other metal apparatus (except precision instruments and electrical equipment) to form complete units and/or secondary sub-assemblies at bench, conveyor line or on the floor:

1) Examines drawings and material list to obtain parts specifications.
2) Plans sequence of operations.
3) Examines parts for flaws and checks accuracy of fit using gauges, micrometers and other measuring instruments.
4) Chisels, files, scrapes and does other supplementary tooling to ensure correct fit, using equipment such as drilling and grinding machines.
5) Lays out, positions, aligns and assembles parts using hand tools such as wrenches, spanners, screwdrivers, pliers, holding fixtures and other tools and work aids.
6) Tests assembled article.
MANUFACTURE OF SPECIAL INDUSTRIAL MACHINERY EXCEPT METAL AND WOOD-WORKING MACHINERY

60. LABOURER, UNSKILLED

Performs one or more manual tasks requiring a minimum of training, little or no previous experience and mainly physical effort:

1) Conveys materials, equipment, goods, etc. about work areas and stacks materials or goods.
2) Opens bales, crates or other containers manually.
3) Assists in setting up machinery or equipment.
4) Assists in loading materials onto or into and unloading finished or processed materials or products from machinery or equipment.
5) Provides general assistance to craftsmen, operators, machinery minders, etc. as required.
6) Washes or cleans parts, components or finished articles or crates or similar containers manually.
7) Clears machine blockages and cleans machinery, equipment and tools.
8) Loads and unloads vehicles, trucks, trolleys, etc.
9) Keeps work areas tidy and clears waste materials and spillages.
10) Disposes of waste materials by baling, tipping on waste heap, burning, etc.
11) Performs routine tasks in the maintenance of premises such as rough painting, washing windows, etc.
61. **ELECTRONICS FITTER**

Fits and adjusts various kinds of electronic equipment in factory:

1) Examines drawings, wiring diagrams and other specifications.

2) Determines sequence and method of required operations.

3) Checks parts for accuracy of fit and, where necessary, files, chisels, scrapes and does other supplementary tooling.

4) Fits parts together or mounts them on chassis or panels, using hand tools, and checks alignment.

5) Selects wire or cable, cuts to required length and strips insulation from ends.

6) Installs and connects wiring to appropriate terminals or connectors, by soldering, crimping, brazing or bolting where necessary to complete equipment circuit.

7) Tests, calibrates and adjusts equipment.

8) Diagnoses faults with aid of testing instruments.

9) Dismantles equipment if necessary and replaces faulty parts and wiring.
62. **ELECTRONIC EQUIPMENT ASSEMBLER**

Assembles previously prepared parts in the batch or mass production assembly of electronic goods or components:

1) Assembles parts, or positions and fastens parts, or mounts them on chassis with nuts and bolts, rivets, screws or similar fasteners, or by soldering or other methods using tools such as hand or powered screwdrivers, pliers, spanners or soldering irons.

2) Installs and connects wiring, mainly by soldering.
63. SUPERVISOR AND GENERAL FOREMAN

Supervises production activities of a distinct unit within an establishment concerned with the manufacture of radio, television and communications equipment and apparatus, and controls and co-ordinates the activities of workers in this unit engaged in various occupations:

1) Studies production programme and estimates manpower requirements.
2) Interprets specifications, blueprints and job orders and determines sequence of operations.
3) Estimates supplies and materials needed and makes requisitions.
4) Establishes or adjusts work procedures to meet production schedules and assigns duties to workers.
5) Maintains records of output.
6) Co-ordinates work of unit with that of other production units within the establishment.
7) Recommends measures to improve production methods, equipment performance, and quality of product and suggests changes in working conditions and use of equipment to increase efficiency.
8) Analyses and resolves work problems.
9) Trains workers.
10) Interprets enterprise policies to workers and enforces safety regulations.
11) Supervises and co-ordinates activities of subordinate foremen.
12) Recommends or initiates personnel action, such as promotions, transfers, discharges and disciplinary measures.
64. ELECTRONICS FITTER

Fits, adjusts, installs and repairs parts, assemblies or sub-assemblies in the manufacture of radio, television and other communications equipment and apparatus in factory, workshop or place of use:

1) Examines drawings, wiring diagrams and other specifications.
2) Determines sequence and method of required operations.
3) Checks parts for accuracy of fit and, where necessary, files, chisels, scrapes and does other supplementary tooling.
4) Fits parts together or mounts them on chassis or panels, using hand tools, and checks alignment.
5) Selects wire, cuts to required length and strips insulation from ends.
6) Installs and connects wiring, to appropriate terminals or connectors, by soldering, crimping, brazing or bolting where necessary to complete equipment circuit.
7) Tests, calibrates and adjusts equipment.
8) Diagnoses faults with aid of testing instruments.
9) Dismantles equipment, if necessary, and replaces faulty parts and wiring.
SHIPBUILDING AND REPAIRING

65. **SHIP PLATER**

Shapes and fits structural steel plates of ships under construction or repair:

1) Examines drawings and other specifications.
2) Marks steel plates to guide shaping and fitting or uses ready-marked plate.
3) Cuts and bends plates and drills and punches holes in them, guided by markings or template.
4) Squares, bevels or scarfs edges of plates.
5) Fits plate in readiness for welding or riveting.
SHIPBUILDING AND REPAIRING

66. **RIVETER (HAND, MACHINE OR PNEUMATIC)**

Rivets together metal parts such as plates and girders using machine and hand tools:

a) **HAND RIVETER**: Uses hand hammer

b) **MACHINE RIVETER**: Uses hydraulic or other rivet press

c) **PNEUMATIC RIVETER**: Uses pneumatically operated hand hammer

1) Selects rivet of suitable size and type.

2) Selects die according to rivet finish specified.

3) Aligns parts to be riveted.

4) Directs helper to insert rivet into pre-drilled holes of aligned metal parts.

5) Fits dies into head of pneumatic or hydraulic riveting machine.

6) Places machine head on exposed end of rivet and operates machine to spread rivet in the hole and form the rivet head, or spreads and forms rivet using hand hammers and dies.

7) Removes loose rivets by cutting off rivet head.

8) Smooths off rivet head using hand and powered tools.
67. **ELECTRIC POWER LINEMAN (ELECTRICAL FITTER; OUTSIDE LINES)**

Installs, maintains and repairs overhead high-tension or low-tension power lines conducting electricity between generating stations, substations and consumers:

1) Assists with the erection of wooden poles or steel towers to carry overhead lines.
2) Connects and anchors stay wires and braces.
3) Climbs poles and towers and connects and installs equipment such as insulators, lightning arresters, cross bars, transformers, fuse gear, cable boxes and aircraft warning lights at proper heights.
4) Installs and tests bonding and earthing systems.
5) Strings and draws cables through insulators fixed on cross bars and between towers, poles, and buildings, ensuring that proper slack is left in cables to avoid breakages under changing atmospheric conditions, and that lines give adequate clearance for trees, television antennae, construction of haystacks, etc.
6) Joints cables by splicing and soldering.
7) Checks overhead lines in allotted section as necessary and maintains them in order for carrying electricity, by effecting repairs of defective lines, poles, towers and ancillary equipment as directed or as necessary.
ELECTRIC LIGHT AND POWER

68. **POWER-GENERATING MACHINERY OPERATOR**

Operates equipment to produce electric power and control its distribution:

a) **STEAM POWER-PLANT OPERATOR**

Controls and operates boilers, turbines, generators and auxiliary equipment at electricity generating plant:

1) Ascertains job requirements from operating instructions or from switchboard attendant.

2) Monitors control board, regulates equipment and adjusts controls connected with operation.

3) Controls operation of boiler and auxiliary equipment such as water and vacuum pumps, coal driers and pulverisers, steam condensers and soot blowers.

4) Adjusts boiler controls to provide steam for varying turbine loads.

5) Synchronises incoming generating units with units in operation.

6) Monitors gauges to determine effect of generator loading on related equipment.

7) Notes malfunctions of equipment, instruments and controls on log sheet.

8) Periodically records instrument readings.

9) Prepares reports as required.

b) **HYDROELECTRIC STATION OPERATOR**

Controls electrical generating units and related mechanical and hydraulic equipment at hydroelectric generating station:

1) Operates switchboard and manually operates controls to control water wheels, generators and auxiliary equipment.

2) Regulates power output of the different generating units according to the demand for power.

3) Operates feeder switchboard to control distribution of electric power over feeder circuits between generating station and substations.

4) Notifies reservoir keeper when additional water pressure is needed to drive water wheels at satisfactory speed.
POWER REACTOR OPERATOR

Controls nuclear reactor to produce steam power to drive electricity-generating equipment or other machinery:

1) Adjusts controls to start and shut down reactor and to regulate flux level, reactor period, coolant temperature and rate of flow, control rod positions and other control elements that affect power level within reactor, following standard instructions and prescribed practices,

2) Communicates with other workers to co-ordinate operation of auxiliary equipment, including pumps, compressors, switchgears and water treatment systems.

3) Reports faulty equipment to foreman.
ELECTRIC LIGHT AND POWER

69. LABOURER, UNSKILLED

Performs one or more manual tasks requiring a minimum of training, little or no previous experience and mainly physical effort:

1) Conveys materials, equipment and goods, etc about work place and stacks materials and goods.

2) Opens bales, crates or other containers manually.

3) Assists in setting up machinery or equipment.

4) Assists in loading materials onto or into and unloading materials from machinery or equipment.

5) Provides general assistance to craftsmen, operators, machinery minders, etc. as required.

6) Washes or cleans parts, components or crates or similar containers manually.

7) Clears machine blockages and cleans machinery, equipment and tools.

8) Loads and unloads vehicles, trucks, trolleys, etc.

9) Keeps work areas tidy and clears waste materials and spillages.

10) Disposes of waste materials by baling, tipping on waste heap, burning, etc.

11) Performs routine tasks in the maintenance of premises such as rough painting, washing windows, etc.
CONSTRUCTION

70. **BUILDING ELECTRICIAN (ELECTRICAL FITTER, INSIDE WIREDMEN)**

Installs electrical wiring and related equipment in houses, industrial and commercial establishments and other buildings:

1) Examines drawings and other specifications.
2) Positions and fixes distribution boards, fuse boxes, switches, light sockets and power points and connects to wiring.
3) Cuts, bends and installs conduit and draws wires through it or installs sheathed cable.
4) Connects wiring to source of electricity supply, tests for insulation, continuity or other defects and makes necessary adjustments.
5) Installs electrical fixtures and equipment such as water heaters, underfloor heating, electrical storage heater systems, time switches, illuminated signs and domestic appliance.
CONSTRUCTION

71. PLUMBER

Assembles and installs pipes, fittings and fixtures of drainage, heating, water supply and sanitary systems at building site:

1) Ascertains job requirements from drawings and other specifications.
2) Locates and marks position of pipe and pipe connections and passage holes for pipes in walls and floors.
3) Cuts openings in walls and floors to accommodate pipes and pipe fittings.
4) Cuts, reams, threads and bends pipes as necessary.
5) Assembles and installs valves, pipe fittings and pipes composed of metals such as iron, steel, brass and lead and non-metals such as glass, vitrified clay and plastic.
6) Joins pipes and fittings using screws, bolts and couplings or by brazing and welding, etc.
7) Caulks joints and tests them for leaks with air and water pressure gauges.
8) Installs assemblies and fixtures such as storage tanks, baths, toilets, taps and valves.
9) Repairs holes made in brickwork or concrete and painting affected by work.
CONSTRUCTION

72. STRUCTURAL STEEL ERECTOR

Performs various tasks in the erection of steel members and heavy plates for buildings, bridges and other structures (except ships):

1) Examines drawings, site facilities and other specifications to determine kind of equipment and manpower required.

2) Erects ladders, scaffolding or working cage, and rigs hoisting equipment or erects jib crane for raising and placing metal work.

3) Directs hoist operator or crane driver to raise and position girders and other metal parts.

4) Checks alignment of metal parts using spirit level and plumb rule and repositions as necessary.

5) Drills or enlarges holes and smooths rough surfaces using pneumatic or electric tools.

6) Bolts, rivets or welds metal parts together or arranges for riveting or welding.
CONSTRUCTION

73. BUILDING PAINTER

Applies coats of paint, varnish, shellac and similar materials to exterior and interior surfaces, trimmings and fixtures of building to protect and decorate them:

1) Selects varnish or other coating material, or mixes paint according to colour and other characteristics required by stirring together proportions of pigment, oil, thinning and drying substances.

2) Erects scaffolding or positions ladders.

3) Removes old paint with scraper, wire brush, blow torch or liquid paint remover.

4) Cleans surfaces with brush, cloth or abrasive material and patches cracks and holes with putty, plastic wood or other filler, and applies sealing solution to knots in wood.

5) Where appropriate, applies masking tape to areas not to be coated.

6) Applies undercoat and one or more other coats of paint or other materials to surface with a brush, roller or spray-gun.

7) Rubs down coated surfaces with abrasive block or paper between coats as necessary.
CONSTRUCTION

74. BRICKLAYER

Lays bricks, hollow tiles and similar building blocks (except stone) to construct walls, partitions, arches, interior fireplaces and chimneys, and other structures:

1) Examines plans and other specifications of structure to be erected, and plans set-out of building blocks.
2) Spreads mortar with trowel on foundation and building blocks and lays them in rows, designs and shapes, leaving openings for windows, doors, etc.
3) Taps block with trowel to align it and embed it firmly in mortar, allowing specified thickness of mortar join.
4) Checks vertical and horizontal alignment of structure with level and plumb line as work progresses.
5) When necessary, cuts brick to shape using hammer and chisel or trowel.
CONSTRUCTION

75. CONSTRUCTION CARPENTER

Cuts out, assembles and installs wooden frameworks of buildings, flooring and other heavy-framed woodwork, such as pouring chutes and scaffolding, at building sites:

1) Works from plans, sketches or instructions received.
2) Selects wood and other materials to be used.
3) Marks out reference points according to pattern or plan to facilitate cutting and shaping.
4) Cuts and shapes wood by hand or using machine tools, performing such operations as sawing, grooving, planing and sanding.
5) Assembles wooden parts, using glue, screws, nails and other means and fits metal rods, hinges, etc. to woodwork where necessary.
6) Erects prepared workpieces such as rafters, wooden floors, partitions, windows, door frames, staircases and scaffolding.
7) Checks accuracy of work with square, rule and spirit level.
8) Maintains and sharpens own tools.
CONSTRUCTION

76. CRANE OPERATOR

Operates cranes to lift, move from one place to another and lower equipment, machinery and materials:

a) JIB CRANE OPERATOR: Operates crane with lifting equipment suspended from end of mobile jib.

b) TOWER CRANE OPERATOR: Operates crane with lifting equipment mounted on horizontal rotating jib on tower.

c) MOBILE CRANE OPERATOR: Drives and operates jib crane mounted on wheeled or tracked motor vehicle.

d) OVERHEAD CRANE OPERATOR: Operates crane with lifting equipment mounted on overhead bridge which runs on rails.

1) Starts motor from control cabin of crane and checks that cables run freely and that crane is secure and properly balanced.

2) Manipulates levers, pedals and switches to raise or lower jib, rotate jib, move lifting equipment along jib or along bridge, so that hook, bucket, grab or other holding equipment is above load.

3) Lowers lifting or holding equipment for ground workers to attach load or operates grab or bucket mechanism, or other holding device.

4) Visually checks that fixing is secure and checks by raising load a short distance.

5) Lifts load and watches indicators showing angle of jib and safe load carrying capacity of crane.

6) Rotates jib and/or moves bogie to move load to specified position.

7) Lowers load for workers to detach or release load from grab or bucket.

8) Greases and oils crane and inspects ropes.

9) Where necessary, watches instruments showing wind speed and direction, and takes safety precautions by repositioning jib, reducing load or ceasing operations.

10) Where appropriate, positions vehicle within easy access of load, checks that vehicle is standing on level surface, operates screw or hydraulic jacks, etc, and that brakes are engaged.
CONSTRUCTION

77. LABOURER, UNSKILLED

Assists building and civil engineering craftsmen in the performance of their tasks on construction site or project. Performs one or more manual tasks requiring a minimum of training, little or no previous experience and mainly physical effort:

1) Loads materials, equipment and tools onto and unloads from vehicles.

2) Transports materials and equipment to and from work areas using wheelbarrow, driving dumper or hoist, or secures load to be moved by crane driver.

3) Digs trenches, foundations and other excavations using pick and shovel or powered hand equipment.

4) Lays and levels hard core to form foundation for concrete.

5) Mixes concrete to specified consistency manually or operates or assists in operating mixing machines.

6) Assists with erection of ladders, scaffolding and working platforms.

7) Cleans equipment and tools.

8) Performs other manual tasks as directed by foreman.
RAILWAY TRANSPORT

78. RAILWAY LOADER (GOODS PORTER, PLATFORM LOADER)

Loads and unloads goods, material or equipment carried in railway wagons:

1) Loads goods, materials or equipment onto wagons by hand, using hand truck, skids, bars, jacks and similar equipment.

2) Stows articles to form a compact load and to avoid damage in transit and facilitate unloading.

3) Covers load and/or secures with ropes as required.

4) Unloads goods, etc. from wagons manually, or by using lifting equipment.

5) Stacks unloaded goods, etc. for removal to storage area, or transfers goods, etc. to storage area manually by loading on conveyor or using hand or powered trucks.

6) Checks goods etc against invoices or consignment notes.
RAILWAY TRANSPORT

79. RAILWAY ENGINE DRIVER

Drives steam, electric or diesel-electric engine to haul passenger or freight trains:

1) Takes charge of train from shunting driver.
2) Supervises and directs activities of engine crew.
3) Inspects engine at beginning and end of each run for operational efficiency.
4) Lubricates mechanism and makes minor repairs and adjustments during run.
5) Receives and studies route schedule, track conditions and time-table.
6) Starts train when signalled by guard or other authorised person.
7) Drives engine along scheduled routes, manipulates controls, handles, brakes and accelerators as necessary to regulate speed.
8) Observes signals and watches for track hazards.
9) Maintains arrival and departure of train at station to scheduled timetable, for loading and unloading passengers and freight, and for coupling and decoupling wagons and carriages.
10) Exchanges signals with guard after every start to ensure his presence on train.
11) Fills up necessary forms for detailing major defects and required repairs on completion of journey.
RAILWAY TRANSPORT

80. RAILWAY STEAM-ENGINE FIREMAN

Fires and attends to boiler of steam locomotive for the transport of passengers and freight:

1) Checks before commencement of journey and replenishes during run supplies, such as sand (to aid traction), fuel and water, to ensure safe and efficient operation during run.

2) Manipulates valves to control flow of oil fuel to burner or feeds coal into firebox with hand shovel or mechanical stoker.

3) Maintains steam pressure and water at required levels.

4) Inspects locomotive to detect worn or damaged parts, ensures correct operation of engine lubricator and checks safety equipment.

5) Observes track to detect obstacles and checks train as it goes around curves to detect dragging equipment and smoking journal boxes.

6) Assists driver in observing signals and following train orders and schedules.

7) Oils and cleans engine parts.
RAILWAY TRANSPORT

81. RAILWAY SIGNALMAN

Controls flow of railway traffic over section of line within his jurisdiction by operating signals and switches from control tower or signal box:

1) Reads switching orders and schedules of inbound and outbound traffic to ascertain time trains will enter or leave yard or line section, sequence of movements and tracks on which trains are to be routed.

2) Either moves switches on electrically controlled panel or moves levers on mechanically controlled equipment to set appropriate traffic signals and to activate track switches that regulate traffic in accordance with safety regulations.

3) Receives and sends train orders and information about train movements by telephone or telegraph.

4) Records time of trains passing through line section.
RAILWAY TRANSPORT

82. PERMANENT WAY LABOURER

Unskilled labourers performing simple manual duties, that may be learned in a short time, requiring little or no previous experience, in laying and repairing railway track:

1) Patrols length of track.
2) Visually inspects rails, bolts, fish plates, and chairs for distortion or fractures and examines track bed for adequacy of ballast.
3) Uses hand tools to check tightness of bolts and wedges.
4) Reports major faults immediately to foreman.
5) Tightens or replaces bolts and wedges.
6) Replaces damaged rail chairs.
7) Repacks ballast under sleepers.
8) Lubricates points.
9) Examines fences, drains, culverts and embankments and carries out necessary maintenance.
10) Clears fallen debris or overspill from track.
URBAN, SUBURBAN AND INTERURBAN HIGHWAY PASSENGER TRANSPORT

83. AUTOMOBILE MECHANIC

Repairs, services and overhauls mechanical parts of automobiles and similar motor vehicles to keep them in good running order:

1) Examines and tests vehicle to ascertain nature, extent and location of defects, or ascertains job requirements from work sheets, technical manuals or other specifications.

2) Plans work, using charts and technical manuals.

3) Dismantles partially or completely engine, transmission, differential or other parts requiring attention, using hoist, jack, hand tools and other devices.

4) Repairs or replaces parts such as pistons, rods, gears, valves, bearings, breaker points or gaskets and accessories such as spark plugs.

5) Relines and adjusts brakes, solders leaks in radiator, rebushes steering mechanism and carries out other repairs.

6) Tunes motor by adjusting ignition, carburettor, valves and timing mechanism.

7) Lubricates joints, tightens loose parts and checks levels of fluids in clutch, brake and power steering reservoirs, of electrolyte in battery and of coolant in radiator, and replenishes as required.

8) Recharges battery as necessary.

9) Drains oil from engine sump, renews oil filter and fills sump with new oil.

10) Oils carburettor dampers, dynamo bearings, water pump and door locks and hinges.

11) Checks and reports on condition of tyres.

12) Changes position of wheels, checks balance of wheels and tyre pressures and adjusts as necessary.

13) Checks lighting system and replaces faulty bulbs.

14) Tests repaired or serviced vehicle in workshop or on road, and makes necessary adjustments to attain desired standard.
Drives street railway car transporting passengers:

1) Checks before start that tram is in perfect running condition and all requisite material such as sidelights, tail lamp, bell, first aid box, etc. are provided.

2) Starts tram at scheduled time under directions.

3) Controls movement of tram in response to signals given by conductor (where appropriate) with due regard to other traffic, traffic regulations and time schedules.

4) On one-man car, collects fares, issues tickets, keeps simple records, operates automatic doors and switch points and adjusts overhead trolley on power lines.

5) Observes regulations concerning number of passengers carried and carriage of animals or parcels.

6) Assists passengers in an emergency.

7) Keeps simple records of defects noticed in tram or track.
85. MOTOR BUS DRIVER

Drives single- or double-deckered motor bus over fixed or predetermined route to transport local or long distance passengers:

1) Before commencing journey, ensures that vehicle is in good running order by checking fuel, oil, water, lights, brakes, etc., and that it is provided with tools and documents as required by law.

2) Drives vehicle over fixed or predetermined route with due regard to other traffic, traffic regulations, signals from conductor and time schedules.

3) Starts and stops bus at recognised stops on request to allow passengers to board or alight.

4) Changes destination indicators as required.

5) On one-man bus: collects fares, issues tickets, observes regulations concerning number of passengers carried and carriage of animals and parcels, completes way bill, balances cash with way bill at end of duty and hands cash and way bill to cashier.

6) Assists passengers in an emergency.

7) Keeps records of defects noticed in bus.
86. URBAN MOTOR TRUCK DRIVER

Drives a motor truck to transport materials, merchandise, equipment, etc. to and from specified destinations over short distances (excluding Roundsmen):

1) Before journey, ensures that vehicle is in good running order, and checks oil, fuel, water, lights, brakes, etc. and that vehicle is provided with the necessary tools and documents as required by law.

2) Attends to, or assists with, loading and unloading.

3) Checks that load is evenly distributed, properly secured and protected where necessary.

4) Drives truck between depot and loading and unloading points, with due regard to other traffic, traffic regulations and time schedules.

5) Maintains record of journey times, mileage and hours worked.
ABLE SEAMAN

Serves as senior deck-hand on sea-going vessel, performing a variety of nautical duties, under the direction of ship's officer, which are necessary to the operation and maintenance of the vessel:

1) Stands look-out for aids and hazards to navigation.
2) Steers vessel as directed, watching compass.
3) Hands and makes fast mooring lines on board.
4) Lowers and raises lifeboats.
5) Takes charge of lifeboats and other small boats to and from shore.
6) Breaks out, rigs, overhauls and stows cargo-handling gear.
7) Splices wire rope and cordage.
8) Maintains lifeboats, lifesaving gear, deck equipment and makes minor repairs.
9) Scraps and cleans painted surfaces of vessel and repaints them.
10) Washes decks and maintains cleanliness of ship's hull, fittings, superstructure and cargo space.
11) Secures gangways and ladders.
OCEAN AND COASTAL WATER TRANSPORT

88. SHIP'S OILER AND GREASER

Lubricates bearings and moving parts of engine and other mechanical equipment on vessel afloat:

1) Makes regular rounds of machinery, checks gauges and thermometers and adjusts pressure and flow of lubricants to working parts of machinery.

2) Fills lubricant dispensers and renews oil in sumps.

3) Pours oil and applies grease with grease-gun at specified points of machinery or moving parts not automatically lubricated.

4) Assists engineers and engine room mechanics in overhauling and repairing engines and other shipboard machinery.
89. DOCKER

Loads and unloads ships' cargoes:

1) Carries goods from quayside into ship's hold, or vice versa, or arranges cargo on quayside or in hold for loading or unloading using small mobile cranes, mechanical bogies and fork lift trucks as required.

2) Fixes slings, hooks, clamps or ropes to cargo ready for lifting.

3) Signals crane driver when load is ready for lifting or operates winch or derrick to lift cargo from or into hold.

4) Guides cargo being moved.

5) Removes slings, hooks, clamps or ropes from cargo after loading or unloading.

6) Stows cargo in position in hold so as to conserve space and prevent damage in transit.

7) Sorts cargo on quayside or in quayside warehouse before and after loading or unloading.

8) If handling bulk cargo such as grain, sugar or cement, connects suction hoses to ship's flow connections, starts pump to load or discharge cargo, uncouples hose system when loading or discharging has been completed.
AIRCRAFT ENGINE MECHANIC, GENERAL

Services, repairs and overhauls aircraft engines such as turbo-prop and piston engines, and other mechanical equipment of aircraft to ensure airworthiness:

1) Ascertains job requirements from worksheets, technical manuals and other specifications.
2) Tests engine, using testing equipment.
3) Examines engine for cracked cylinders, oil leaks and other defects.
4) Dismantles, degreases, cleans and inspects parts for wear and other defects, and obtains replacement parts as necessary.
5) Removes engine from aircraft for overhaul by disconnecting and reconnecting tubing, wiring and accessories and fixations and installs replacements.
6) Consults manufacturers' manuals and airline's maintenance manuals for specifications and feasibility of repair or replaces defective parts.
7) Repairs, assembles and replaces parts.
8) Runs engine to test performance making necessary adjustments to carburettor and tunes it using special tools.
9) Inspects, services and repairs pneumatic and hydraulic systems.
10) Performs other duties to service aircraft mechanisms, including flushing crankcase, cleaning screens, greasing moving parts and checking brakes.
11) Cleans and examines fuel and air intakes, exhaust system, propellers, compressors and similar fittings and replaces defective items—
AIR TRANSPORT CARRIERS

91. AIRCRAFT LOADER

Loads and unloads aircraft cargo:

1) Stows cargo according to size, weight, type and destination of goods, following general loading instructions, manually or using lifting equipment.

2) Removes cargo from aircraft manually or using lifting equipment.

3) Transfers cargo between aircraft and air terminal or storage area by loading on conveyor or using hand or powered trucks.

4) Checks goods, etc. against invoices or consignment notes.
SANITARY AND SIMILAR SERVICES

92. **REFUSE COLLECTOR**

Collects refuse from business and private premises on designated route with municipality and dumps refuse from containers onto truck:

1) Conveys rubbish and waste material in dustbins or other containers from premises to refuse vehicles manually or using trolley.

2) Empties rubbish and waste material into vehicle manually or secures bin to mechanical tipping device and operates controls to tip contents into vehicle.

3) Returns container to premises.
MEDICAL, DENTAL AND OTHER HEALTH SERVICES

93. AMBULANCE DRIVER

Drives ambulance vehicles to carry sick, injured or convalescent persons to hospital, and gives first aid in emergencies:

1) Works as member of a team and drives ambulance on routine and emergency calls.
2) Ascertains nature of ailments or injuries before moving patient.
3) Gives first aid.
4) Assists persons to ambulance or carries them on stretcher.
5) Attends to comfort and safety of persons during journey.
6) Cleans and disinfects ambulance after use.
7) Ensures that medical supplies on ambulance are replenished as necessary and in good condition.
8) Maintains log book of journeys performed.
AUTOMOBILE MECHANIC

Repairs, services and overhauls automobiles and similar motor vehicles:

1) Ascertain job requirements from worksheet, technical manuals or other specifications.

2) Examines vehicle to ascertain nature, extent and location of defects and obtains customer's agreement where necessary to repair defects not listed on worksheet.

3) Plans work, using charts and technical manuals.

4) Dismantles engine, transmission, differential or other parts requiring attention, using hoisting or jacking and other equipment where necessary.

5) Repairs or replaces parts such as pistons, rods, gears, valves, bearings, breaker points and gaskets, and accessories such as spark plugs.

6) Relines and adjusts brakes, solders leaks in radiator, rebushes steering mechanism and carries out other repairs.

7) Tunes motor by adjusting ignition, carburetter, valves, and timing mechanism.

8) Tests repaired vehicle in workshop or on road, and adjusts as necessary.

9) Services motor vehicles:
   - Injects grease into greasing points of vehicle using hand or compresses air-powered grease gun.
   - Checks level of oil in gearbox, rear axle, steering box, and engine and replenishes as required.
   - Checks levels of fluid in clutch, brake and power steering reservoirs, of electrolyte in battery and of coolant in radiator and replenishes as required.
   - Recharges battery as necessary.
   - Drains oil from engine sump, renews oil filter and fills sump with new oil.
   - Renews, cleans and adjusts sparking plugs.
   - Oils carburetter dampers, dynamo bearings, water pump, door locks and hinges.
   - Checks and reports on condition of tyres.
   - Checks balance and position of wheels and tyre pressures and adjusts as necessary.
   - Checks lighting system and replaces faulty bulbs.
PART. 2
COAL MINING

1. COAL MINING ENGINEER

Undertakes research, technical advisory, consultancy and related works in the field of coal mining engineering, including preliminary surveys of deposits and undeveloped mines to plan their development and the examination of deposits and mines to determine whether operation would be economically feasible, and plans and directs the technical aspects of extracting coal from the earth by mining and the preparation of coal for distribution, and supervises all mining operations including mineral prospections:

1) plans and conducts research to advance basic mining engineering knowledge, to evaluate new techniques and theories, to evolve methods of mining best suited to character and size of deposits, to improve mine safety and environmental conditions, to devise improved methods of winning coal etc.

2) develops or adapts new or established principles to improve yield, quality, profitability and other aspects of mining extraction;

3) decides on extraction methods and types of machinery and equipment to be used, and plans position, direction and extent of mine shafts, adits, drifts, open pits, etc., and of related developments such as water and power supplies, transport, coal treating plants, with regard to cost, location and extent of coal deposits, treating and distribution requirements and other relevant factors;

4) supervises operation in treatment of minerals at mine;

5) supervises rescue operations when required;

6) maintains records and statistical data and prepares reports for Government and other authorities;

7) gives technical advice or acts as consultant in this field as required.
CRUDE PETROLEUM AND NATURAL GAS PRODUCTION
ONSHORE OPERATIONS OR OFFSHORE OPERATIONS

2. PETROLEUM AND NATURAL GAS ENGINEER

Undertakes research, technical advisory, consultancy or related work in the field of natural gas and/or oil well engineering and plans, organises and supervises the extraction, storage, initial treatment and transportation of petroleum and natural gas:

1) engages in research to develop new and improved methods of gas and oil well drilling and of extraction and storage of natural gas and oil to advance basic knowledge, to evaluate new theories and techniques, to improve safety factors, to devise and recommend new and improved methods of drilling and extraction, to determine need for new or modified tool designs, and for similar purposes;

2) advises on technical matters relating to the extraction of petroleum and natural gas and to achieve economical and satisfactory progress;

3) studies data from geological and geophysical surveys;

4) plans and decides on, in consultation or co-operation with other specialists such as geologists, geophysicists and mechanical engineers, location and extent of drilling operations, types of drilling equipment including sea bed platforms when appropriate and related surface development required, with regard to cost, location and extent of deposits, treating and distribution requirements, economic practicability of extraction and other factors;

5) calculates reserves of petroleum and gas;

6) organises and supervises drilling operations and directs testing of boreholes to determine pressures, temperatures, strata encountered and other factors;

7) devises methods for bringing wells into production by controlling flow of oil or gas and treating oil to remove sediments and water;

8) supervises operations and maintenance of producing wells and associated storage tanks and pipe transport system;

9) compiles logs, production records and other data for each well and conducts special studies on subjects such as salt-water encroachment;

10) initiates and supervises regulations regarding safety and fire protection.
3. PETROLEUM AND NATURAL GAS EXTRACTION TECHNICIAN

Performs technical tasks, normally under direction and supervision of petroleum and natural gas engineer, contributory to the extraction, storage and transportation of petroleum and natural gas:

1) prepares drawings, estimates and work schedules, and otherwise assists in locating wells, planning drilling operations, calculating data relating to project at hand and estimating materials and costs;

2) gives technical guidance to drilling teams and other workers;

3) tests boreholes to determine pressures, temperatures, strata encountered and other factors;

4) assists in bringing wells into production by controlling flow of oil or gas and treating oil to remove sediment and water;

5) assists in technical supervision of operations of producing wells and associated storage tanks and pipe transport system and keeps production and other records;

6) assists in research to develop new and improved or better adapted methods of extraction;

7) applies knowledge of theory and practices of petroleum and natural gas extraction to recognise and solve problems arising.
4. JOURNALIST

Collects, reports and comments on news and other items of current interest for publication in newspapers and periodicals:

1) interviews persons, attends public events or undertakes special assignments, investigates events of public interest and seeks information from other sources concerning his subject of interest:

2) records observations for subsequent report or story;

3) writes report or story and commentaries, interpreting the facts to give a personal assessment of their causes, consequences and likely implications;

4) where applicable, submits material to editorial department for approval and preparation for publication in newspaper or magazine;

5) usually specialises in a particular field of affairs.
5. **STENOGRAFER — TYPIST**

Takes direct dictation of correspondence, reports and other papers by hand or machine, and transcribes dictates materials into typewritten form:

1) records in shorthand, by hand or shorthand-writing machine, dictated letters, memoranda, reports or other matter;

2) types matter from shorthand notes, written drafts, recordings on dictating machine or other sources and cuts stencils;

3) uses manual, electric or electronic typewriter, or word processor;

4) may perform limited clerical duties.
PERFORMS A VARIETY OF CLERICAL TASKS, SUCH AS THOSE WHICH FOLLOW, DEPENDING ON NATURE AND SIZE OF OFFICE IN WHICH EMPLOYED:

1) Examines incoming mail referred to him for attention and assembles information needed for preparation of reply;

2) Composes letters in reply to correspondence or telephone enquiries, or to obtain information, and initiates other routine correspondence;

3) Calculates and checks factors for costing, estimating, valuing or other purposes;

4) Collates sales records and gives instruction for preparation of invoices and other documents in connection with sales and deliveries;

5) Receives and interviews clients, employees, sales personnel or other callers, and arranges appointments and directs inquiries to appropriate persons or departments;

6) keeps and balances accounts of financial transactions and prepares statements of accounts;

7) Computes time, output or other factors and calculates earnings or payments due;

8) Receives payments of accounts and issues receipts;

9) Receives, counts and pays out cash;

10) Prepares loss or damage reports and insurance claims;

11) Prepares, issues, receives or checks forms and documents in connection with the administration of national, regional or local government legislation or other matters; determines material and production requirements;

12) Prepares operational schedules, orders or received orders for material and merchandise;

13) Files vouchers, receipts, letters and other documents; arranges for the transport of freight and prepares relevant documents;

14) Deals with complaints;

15) Compiles statistical information;

16) Records issues of stationery and equipment to staff and maintains records as required.
7. CHEMISTRY TECHNICIAN (LABORATORY ASSISTANT)

Performs auxiliary technical tasks, normally under direction and supervision of Chemists and Chemical engineers, in connection with pure research into chemical phenomena or applied chemical research and development work:

1) participates in the design and supervision of construction, setting up, operation and repair of chemical plants and equipment;

2) applies certain norms for testing and controlling apparatus and chemical plants;

3) conducts, under supervision, chemical and physical laboratory tests and experiments, and makes qualitative and quantitative analysis of materials, in such fields as organic, inorganic, physical and analytical chemistry, for purposes such as investigating chemical phenomena, determining chemical composition, properties, purity and other characteristics of substances, discovering and developing new chemical products, new uses for existing products or new methods of production, maintaining the health and safety standards, or controlling industrial processes;

4) tests analytical methods described in literature and modifies them in order to make them adaptable to current problems;

5) sets up equipment for experiments and weighs, measures, mixes, filters and otherwise prepared materials;

6) applies knowledge of principles of chemistry to recognise, study and suggest solutions to problems encountered;

7) tests samples of manufactured products to ensure conformity with specifications;

8) records observations and conclusions of tests, analyses and experiments, makes calculations, prepares charts and writes reports;

9) helps in preparation of the production programme.
8. CHEMICAL ENGINEER, GENERAL

Carries out research on chemical engineering problems and develops and advises on processes (or devises new and improved processes) for manufacturing on a commercial scale chemicals and products such as synthetic fibres, synthetic rubbers, plastics, etc., applying principles of technology, of chemistry, physics and engineering; designs chemical plant and plans and supervises its construction, installation, operation, maintenance and repair:

1) studies existing processes or equipment used and their efficiency and production levels;

2) engages in research relating to chemical and physical transformation of matter on a commercial scale to develop new or improved processes and manufacturing plant in co-operation with other specialists.

3) Plans and carries out tests and projects, including definition of problems and the choice of methodology;

4) directs and supervises construction, installation and operation of plant and equipment, and inspects and tests completed work to ensure compliance with specifications and safety standards;

5) advises employer, associates and clients on chemical engineering matters;

6) specifies sequence of physical transformation operations;

7) formulates technical and scientific problems and states goals and programs for testing;

8) carries out operational research and work dealing with quality technique;

9) collaborates with chemists and other specialists in application for procedures of quality control of raw materials and products; develops analytical methods;

10) investigates faults and failures occurring in processes;

11) plans and supervises maintenance and repair of processing plant.
9. **ELECTRICAL DRAUGHTSMAN**

Prepares clear, complete and accurate working plans and detailed drawings based on sketches, general or partial drafts and specifications for engineering purposes and for manufacture and installation of electrical and electronic machinery, equipment and systems:

1) examines design specifications, sketches, calculations and other data provided by design engineer to ascertain requirements;

2) prepares working drawings, diagrams and detailed specifications for the manufacture, installation, wiring, operation and repair of electrical machinery, equipment, and systems;

3) calculates or makes necessary supplementary calculations of dimensions, surfaces, volumes, weights of components and other factors to ascertain general requirements;

4) correlates the calculated dimensions of parts of the product or structure, and consults designer regarding design adjustments that appear necessary; makes final detail and assembly drawings;

5) makes schedules, rearranges and makes adjustments to standard symbols;

6) prepares assembly documents in the form of fitting drawings and connection charts;

7) makes charts and diagrams of representation of statistical and other data;

8) draws so-called "pattern cards", which includes the use of certain electronic components with regard to the length of wires, shielding, assembly;

9) considers material to be used and most effective and economical means of manufacture and examines the possibility of incorporating standard components, parts and materials;

10) checks that all safety factors have been incorporated in design, consulting with design engineer as necessary;

11) prepares general arrangement drawings to scale showing the position, size, shape and interrelationships of components;

12) checks design for feasibility of construction;

13) inserts on drawing production guidance and information such as number of wire, type of insulation, datum points and centre holes, heat treatment required and location of lubrication points, etc.
10. **ELECTRONICS ENGINEERING TECHNICIAN**

Gives direct general technical assistance to engineers engaged in research, development, design, application, feasibility studies, liaison or similar activities, and performs a variety of functions such as estimating, constructing, repairing, testing, installing, modifying, operating, designing, or maintaining a variety of production or experimental types of complex electronic equipment, utilising knowledge of electronic theory, physical sciences and mathematics, normally under the direction and supervision of professional engineers or scientists:

1) sets up apparatus and equipment for experimental work, makes tests, takes readings, performs calculations, and records, analyses and interprets data;

2) assists in research and development work concerning electronic devices and equipment such as radio, television and radar equipment, telecommunications installations and automatic control and guidance systems;

3) prepares estimates of quantities and costs of materials and labour required for manufacture and installation of electrical equipment, assists the engineers in operational work, construction and planning and preparing work schedules;

4) exercises technical supervision and control, and gives technical guidance to workers engaged in manufacture, installation, repair and maintenance of electronic equipment;

5) inspects and tests completed work to ensure compliance with specifications and safety standards;

6) implements procedures for the maintenance of standards of quality, accuracy and reliability in engineering work;

7) inspects and regulates functioning of installed electrical plant employed for manufacturing process, or other purposes;

8) diagnoses and corrects faults beyond the competence of staff carrying out routine maintenance; undertakes tests of complex engineering systems and constructions; writes technical reports and develops charts, graphs and schematics to describe and illustrate systems operating characteristics, malfunctions, deviations from design specification and functional limitations.
11. **POWER DISTRIBUTION AND TRANSMISSION ENGINEER**

Undertakes a variety of engineering activities such as research, design, feasibility studies, application studies, technical liaison and consultancy in the field of power transmission and distribution systems and equipment, and supervises the development, construction, maintenance and repair of those systems and equipment:

1) studies operating requirements for electric power distribution and transmission equipment and systems;

2) advises employers, associates and clients on power distribution and transmission matters;

3) consults with specialised electrical engineers, electronics, civil and mechanical engineers, physicists and industrial designers, as necessary;

4) designs systems and equipment, prepares working drawings and specifications indicating materials to be used;

5) surveys areas to determine installation of power lines and directs erection of distribution lines;

6) estimates labour, material and other costs of manufacture, installation, operation, maintenance and repair;

7) supervises installation, maintenance and repair of electrical equipment and checks completed work to ensure compliance with specifications and safety standards;

8) undertakes activities in the field of co-ordination of generation and distribution of power between power stations, sub-stations and users.
12. OFFICE CLERK, GENERAL

Performs a variety of clerical tasks, such as those which follow, depending on nature and size of office in which employed:

1) examines incoming mail referred to him for attention and assembles information needed for preparation of reply;

2) composes letters in reply to correspondence or telephone inquiries, or to obtain information, and initiates other routine correspondence;

3) calculates and checks factors for costing, estimating, valuing or other purposes;

4) collates sales records and gives instruction for preparation of invoices and other documents in connection with sales and deliveries;

5) receives and interviews clients, employees, sales personnel or other callers, and arranges appointments and directs inquiries to appropriate persons or departments;

6) keeps and balances accounts of financial transactions and prepared statements of accounts;

7) computes time, output or other factors and calculates earnings or payments due;

8) receives payments of accounts and issues receipts;

9) receives, counts and pays out cash;

10) prepares loss or damage reports and insurance claims;

11) prepares, issues, receives or checks forms and documents in connection with the administration of national, regional or local government legislation or other matters, determines material and production requirements;

12) prepares operational schedules, orders or received orders for material and merchandise;

13) files vouchers, receipts, letters and other documents, arranges for the transport of freight and prepares relevant documents;
14) deals with complaints;
15) compiles statistical information;
16) records issues of stationery and equipment to staff and maintains records as required.
WHOLESALE TRADE (GROCERY)

13. STENOGRAPHER - TYPIST

Takes direct dictation of correspondence, reports and other papers by hand or machine, and transcribes dictated materials into typewritten form:

1) records in shorthand, by hand or shorthand-writing machine, dictated letters, memoranda, reports or other matter;

2) types matter from shorthand notes, written drafts, recordings on dictating machine or other sources and cuts stencils;

3) uses manual, electric or electronic typewriter, or word processor;

4) may perform limited clerical duties.
WHOLESALE TRADE (GROCERY)

14. STOCK RECORDS CLERK

Maintains stock records of an enterprise, verifies issues, estimates needs and requisitions new stocks, checks or evaluates stock for the reconciliation of stock with accounting records:

1) examines delivery and issue vouchers and makes necessary entries in records;

2) compares entries in accounting records with relevant documents to check validity of entries;

3) calculates stocks held in various departments, examines sales or other records and estimates future needs;

4) takes periodic inventory or keeps perpetual inventory;

5) requests or orders supplies when needed, makes up necessary reports;

6) plans the stock and/or inventory work from a technical and time-related point of view;

7) participates in decisions regarding methods, resources, and the organisation of inventory and stock-keeping.
15. WHOLESALE TRADE SALESMAN

Sells goods in a wholesale establishment to retailers and large-scale consumers:

1) talks to customers on sales floor, ascertaining from them the type of goods desired;

2) advises on range of goods available and shows samples or catalogue illustrations or products to prospective buyers, explains their merits, characteristics and quality and emphasises their saleable features;

3) arranges demonstration of goods if necessary;

4) where appropriate, weighs, measures out or selects goods from stock and quotes prices and credit and discount terms;

5) takes orders, prepares sales slip or invoice and passes them to appropriate section for action;

6) assists wholesale dealer in stock-taking and other matters connected with running of wholesale establishment.
16. **BOOK-KEEPER, GENERAL**

Keeps, classifies, computes and balances a set of records in which day-to-day accounts of financial transactions of establishment are summarised or keeps one section of a set of financial records:

1) receives bills, vouchers and other papers concerning cash transactions;

2) verifies accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers, inspects supporting documents;

3) makes and checks entries of transactions in chronological order in appropriate records;

4) makes calculations and totals ledgers at regular intervals;

5) handles and examines the account coding;

6) closes and balances accounts;

7) compiles material in preparation for intermittent and annual balancing of the books;

8) compiles reports at specified intervals to show receipts, payments, balances of accounts owing to or by the undertaking and other financial information;

9) prepares extracts and supplies details of accounts as required;

10) performs a variety of other tasks related to bookkeeping.
17. CASH DESK CASHIER

Receives payments from customers and gives change in respect of sales and performs closely related clerical tasks:

1) itemises customer's purchases, checks total on bill presented at cash desk or totals amount due, collects cash, gives change and issues receipts or tickets for purchases, as appropriate;

2) as necessary, debits customers' accounts in respect of purchases;

3) pays out cash against written orders or credit notes and obtains receipts;

4) keeps daily records of amounts received and paid and reconciles cash balance with records;

5) maintains other records in respect of cash transactions as directed.
18. **SALESPERSON**

Sells goods in a shop or similar retail trade establishment:

1) handles sales transactions;

2) ascertains from customer the nature, quality and price range of product required;

3) advises on range of goods available, assists customer in choice by demonstrating and describing characteristics of products available;

4) where appropriate, weighs, measures out or selects goods from stock, packs and arranges delivery of purchases;

5) replenishes or arranges goods on display stands, shelves or counters;

6) calculates cost and prepares sales slip or invoice.
19. HOTEL RECEPTIONIST

Receives and registers guests at hotels and similar establishments, allocates accommodation and performs a variety of services for them on arrival, departure and during their stay:

1) controls advance bookings, makes reservations and keeps records of rooms allocated;

2) receives and registers guests on arrival, ascertains their requirements and assigns rooms;

3) provides information on hotel facilities and services, tourist and other local services and amenities;

4) transmits incoming mail and messages for guests;

5) notifies hotel staff concerned of dates of arrival and departure of guests;

6) keeps records, prepares statements for guests and collects payment;

7) arranges for clearance of baggage and departure.
20. **COOK**

Prepares, seasons and cooks soups, meats, vegetables, desserts and other foodstuffs for consumption in hotels or restaurants:

1) fries, broils, roasts, steams or boils meats, fish, vegetables and other food;

2) prepares salads, sandwiches, fruit juices and other cold foods;

3) prepares and bakes bread, rolls, muffins, biscuits, cakes, cookies, pies and puddings;

4) supervises preparation of foodstuff for cooking or eating raw;

5) supervises cleaning up and dishwashing in kitchen.
21. WAITER, GENERAL

Serves food and beverages in commercially operated dining places:

1) prepares tables for meals with clean linen, silverware, glasses, condiment holders and flowers;
2) presents menu to diners and takes orders for food and beverages;
3) if required, describes dishes on menu and advises on selection of food;
4) passes orders to kitchen or service station;
5) serves food and/or beverages to patrons at table;
6) presents bill for payment or for signature by customer;
7) removes or has removed, soiled table linen, dishes, glasses and silverware.
22. **CHARWORKER**

Cleans and keeps in orderly conditions the interiors of hotels, motels, restaurants, and other similar establishments; performs some or all of the following tasks:

1) scrubs, washes, mops, sweeps and polishes floors, corridors and stairs and disposes of waste or litter;

2) cleans carpets, rugs and mats with brush, beater or vacuum cleaner;

3) dusts and polishes furniture and office equipment, fixtures, fittings and other metal objects;

4) cleans kitchens, bathrooms and toilets;

5) washes down walls and woodwork;

6) cleans inside windows.
RAILWAY TRANSPORT

23. RAILWAY SERVICES SUPERVISOR

Supervises and co-ordinates one or more of the service activities of the traffic department of a railway undertaking:

1) supervises, directly or through subordinates, and co-ordinates the activities of workers engaged in passenger and goods traffic handling, such as those operating and controlling equipment used to facilitate the movement of people or goods, and those engaged in manning of trains, allocation of rolling stock, make-up and break-up of trains, preparation of operating schedules or other operational services;

2) conducts investigations of users' requirements, prepares reports on operational efficiency and makes proposals for future development for the information of management;

3) ensures that safety regulations are in force.
RAILWAY TRANSPORT

24. RAILWAY PASSENGER TRAIN GUARD

Takes charge of passenger train during the journey, including supervision and co-ordination of rail transport crews, and is responsible for its movement and safety:

1) ensures that rail trains are moved according to train orders or other instructions, and takes precautions for safety of passengers;

2) directs activities of crews;

3) examines signalling and lighting equipment on train;

4) supervises switching of coaches and loading or unloading of parcels and small items of freight;

5) signals engine driver to start or stop;

6) keeps records of items loaded or unloaded and of coach numbers making up train;

7) takes appropriate action in case of emergencies or accidents;

8) gives information to passengers about train rules, train stops, connections and timetables;

9) submits reports at termination of each run or shift.
RAILWAY TRANSPORT

25. CASH DESK CASHIER (TICKET SELLER)

Issues tickets for travel facilities from ticket-issuing office, receives cash in payment and gives change to clients:

1) ascertains type of ticket(s) required, selects ticket(s), checks amounts receivable, collects cash, gives change and issues ticket(s),

2) keeps daily records of cash received and tickets sold and reconciles cash balance with records;

3) deals with inquiries from passengers and other railway transport users in train stations and gives such information as schedules, departures and arrivals of trains.
26. BUS CONDUCTOR

Collects fares, issues tickets, controls passengers and supervises safety and comfort of passengers on buses:

1) collects fares and issues tickets;

2) signals to driver to stop when passengers wish to alight from or board bus, and signals again when safe to pull away;

3) observes regulations concerning number of passengers carried and carriage of animals and parcels;

4) announces stops and opens and closes doors;

5) controls movement of passengers on bus and ensures observance of regulations concerning their safety and comfort;

6) co-operates with driver in maintaining time schedules;

7) completes way-bill at scheduled points of route to show the time and number of tickets used;

8) keeps simple records, such as of trips, tickets issued, fares collected and hours on duty;

9) takes charge of property found on vehicles;

10) gives schedule and route information to passengers.
27. **SHIP'S CHIEF ENGINEER**

Plans, co-ordinates and directs engine-room department aboard ship and supervises subordinate marine engineer officers and engine-room ratings:

1) takes complete charge of the operation, maintenance and repair of all electrical and mechanical machinery and equipment on board ship including motive power, electrical generators, boilers, auxiliary and deck machinery, pumps, ventilating systems, refrigerators, fresh-water distillation plant, plumbing and winches;

2) directs and supervises personnel of engine-room department;

3) plans watch-keeping rota for engineer officers;

4) requisitions fuel and engine department stores;

5) in port organises repairs and overhaul of engines and machinery when engines are at rest;

6) maintains record of operations of engineering department.
28. **SHIP'S STEWARD**

Takes care of general needs and comfort of ship's passengers and crew, performing some or all of the following tasks:

1) receives passengers and conducts them to state-rooms or cabins;

2) carries hand luggage;

3) deals with passengers' general inquiries;

4) keeps cabins in order, makes beds and berths and changes linen and towels;

5) serves beverages and light refreshments to passengers and crew in club-room, smoke-room, etc.;

6) serves meals in dining-room, state-rooms or cabins;

7) assists passengers on deck or in lounge by arranging chairs and rugs and running errands as requested;

8) cleans state rooms, cabins, companion ways, bathrooms, toilets, pantries, store-rooms;

9) cleans, washes and polishes tableware and is responsible for stores in his charge.
Pilots or navigates aircraft to transport passengers, mail or freight:

1) studies flight plan and modifies it as necessary;

2) discusses plan with flight deck crew and briefs them on possible emergencies;

3) performs or supervises routine pre-flight checks of loading, fuel supplies, instruments, switches and other controls and orders changes, if necessary;

4) discusses weather conditions for take-off, flight, landing and return with meteorologist;

5) contacts control tower by radio to obtain take-off clearance and instructions;

6) operates controls to manoeuvre aircraft on land and in the air and to take off and land;

7) during flight reads or directs reading of instruments to aid in control of aircraft and to detect irregularities;

8) maintains flight log; uses navigational aids to direct the course of aircraft in flight;

9) studies information received from area air traffic control;

10) brings automatic pilot into operation as appropriate; exchanges information by radio with area air traffic control, ships and other aircraft;

11) observes air traffic control and safety instructions;

12) supervises activities of flight deck crew and delegates own functions as appropriate;

13) lands aeroplane after guidance and clearance from approach procedural controller.
30. AIRCRAFT CABIN ATTENDANT

Attends to the general needs, comfort and safety of aircraft passengers, performing some or all of the following tasks:

1) ensures that cabin is clean and tidy and that equipment is stowed securely;

2) greets passengers boarding plane and guides them to their assigned seats;

3) ensures safe storage of hand baggage;

4) ensures that passenger seat belts are fastened and "no smoking" signs obeyed before take-off and landing;

5) explains to passengers the controls for adjusting seats, seat lights and ventilators;

6) distributes reading matter, answers questions about aircraft, its schedule and route and points out places of interest over which flight passes;

7) explains use of safety equipment such as life-belts and oxygen masks;

8) prepares and serves light refreshments;

9) ensures preprepared meals and beverages are on board and serves them;

10) sells drinks and cigarettes;

11) observes passengers to detect signs of discomfort, administers minor medical aid as necessary and renders any other service contributing to passengers' comfort;

12) assists passengers in emergencies according to established safety procedures;

13) sees passengers safely off aircraft with their personal belongings.
SUPPORTING SERVICES TO AIR TRANSPORT

31. AIR TRAFFIC CONTROLLER

Maintains radio and/or radar contact with aircraft to clear it for landing and take-off at airport and controls aircraft in flight in the vicinity of airport or in a designated sector or airspace, to provide a safe, orderly and expeditious movement of air traffic in the controlled airspace:

1) controls movement of aircraft about to leave;

2) studies display of aircraft location, and meteorological and navigational information prepared by air traffic control assistants;

3) directs assistants to obtain additional information as necessary;

4) transfers departing flights to surveillance of sector controller and takes over control of incoming flights;

5) directs take-off and landing of aircraft at airports by issuing radio instructions to flying crafts within his range;

6) controls and monitors airport lighting and other airport installations and issues instructions to pilots and ground staff in case of emergency;

7) accepts flights entering his sector and advises pilots on altitude required to maintain separation of aircraft and gives warning of changes in weather conditions;

8) contacts aircraft in flight between airports and gives instructions, advice and information;

9) if in charge of a sector of airspace, transfers outgoing flights to next sector controller;

10) examines and approves flight plans received from agents of companies using the airport;

11) keeps record of messages received from aircraft.
SUPPORTING SERVICES TO AIR TRANSPORT

32. AIRCRAFT ACCIDENT FIREFIGHTER

Prevents or extinguishes fires in crashed or damaged aircraft and rescues crew and passengers:

1) sprays runway with chemical foam to reduce danger of explosion on impact when disabled aircraft are about to make emergency landings;

2) drives to scene of emergency landing, crash or other accident and sprays aircraft with chemical agents to prevent or extinguish fire;

3) rescues crew and passengers from aircraft, using flame-cutting and other special equipment as necessary, and renders first aid to injured;

4) removes or neutralises dangerous cargoes on crashed or damaged aircraft;

5) keeps equipment in state of readiness;

6) connects and operates hosepipes, auxiliary pumps and other fire-extinguishing appliances.
33. POST OFFICE COUNTER CLERK

Receives letters and parcels, receives and pays out cash, sells postage stamps, postal and money orders, and conducts other post office counter business, such as services for the transfer of banking of money and the payment of accounts or licence fees, and performs some or all of the following tasks:

1) weighs letters and parcels and computes amounts due for postage, registration or insurance;

2) sells items such as postage stamps, stamped envelopes and letter cards;

3) receives and pays out cash in connection with money transfer, banking or other services operated by the postal service;

4) keeps records of transactions;

5) replenishes cash and stock reserves as necessary;

6) balances cash, stamps and vouchers at the end of each period of duty.
34. POSTMAN

Delivers mail along a regular route to private home and business establishments after sorting it according to streets and street numbers:

1) sorts mail and parcels for delivery along route in street and house-to-house delivery order;

2) delivers letters, printed matter, small packages and other articles sent through the mail service both registered and unregistered;

3) completes delivery forms where necessary;

4) collects money for cash-on-delivery packages and obtains signatures for delivery of registered or other recorded mail;

5) receives and records payments of carriage letters without sufficient postage paid, and money orders.
COMMUNICATION

35. **TELEPHONE SWITCHBOARD OPERATOR**

Operates a telephone switchboard of public telephone exchange or a section thereof, dealing with local or long-distance calls:

1) observes switchboard for incoming calls and moves cords, switches or other devices to make contact with caller and person called, including inter-office calls to internal telephones and trunk or international calls;

2) connects calls from subscribers direct to number required, or through other operators where number cannot be dialled or subscriber requests assistance or special facilities;

3) routes long-distance calls or gives necessary instructions to other switchboard operators;

4) observes and records charges for long-distance or other calls;

5) gives advice on dialling and other special facilities available;

6) reports faults.
36. ACCOUNTANT, GENERAL

Plans and administers accounting services and examines, analyses, interprets and evaluates accounting records for the purpose of giving advice on accountancy problems or preparing statements and installing or advising on systems of recording costs or other financial and budgetary data:

1) plans, installs and advises on budgetary, accounts controlling and other accounting systems;

2) assists in formulation of budget policies and advises on financial problems, management accountancy, administration and organisation;

3) keeps record of all taxes, fees, etc. to be paid by the institution in which engaged and ensures that they are paid in time and kept up to date;

4) prepares or reviews tax returns and contests claims before tax officials;

5) plans and directs work of book-keepers, cashiers and book-keeping clerks and supervises workers undertaking routine phases of audit and all other accounting activities;

6) advises on, organises and supervises the installation and implementation of manual, mechanised and computerised accounting, book-keeping and related systems;

7) conducts financial investigations in matters such as suspected fraud, insolvency and bankruptcy;

8) prepares and certifies financial statements for presentation to board of directors, executives, shareholders or statutory or other bodies;

9) verifies balance sheets, prepares reports including those on profit forecasts and budgets;

10) generally advises on other matters requiring accountancy knowledge.
MONETARY INSTITUTIONS - BANKS

37. STENOGRAPHER - TYPIST

Takes direct dictation of correspondence, reports and other papers by hand or machine, and transcribes dictated materials into typewritten form:

1) records in shorthand, by hand or shorthand-writing machine, dictated letters, memoranda, reports or other matter;

2) types matter from shorthand notes, written drafts, recordings on dictating machine or other sources and cuts stencils;

3) uses manual, electric or electronic typewriter, or word processor;

4) may perform limited clerical duties.
MONETARY INSTITUTIONS - BANKS

38. **BANK TELLER**

Deals directly with client of a bank in respect of deposits and withdrawals and related matters, and records and balances money and negotiable instruments involved in various bank transactions:

1) receives and checks cash, cheques and other money orders and completes deposit slip, or enters details of deposit in customer's passbook or on documents to be transferred to accounts section;

2) examines cheques or withdrawal slips presented for payment, where appropriate, verifies signature(s), customer's credentials or account balance and pays out the amount stated;

3) exchanges money for equivalent amount in different denominations;

4) replenishes cash reserve as necessary;

5) makes debit entries in depositor's account card and draws up-to-date balance;

6) keeps daily record of transactions;

7) balances cash held at end of day against record of transactions.
39. **BOOK-KEEPING (ACCOUNTING) MACHINE OPERATOR**

Operates numeric keyboard machine to record details of financial transactions, make computations, and prepare payrolls, statements or other accounting records:

1) sets machine for required accounting process, selects required kind of book-keeping form or card and positions it in machine;

2) examines cheques, withdrawal or deposit slips, receipts and other documents for correctness;

3) sorts documents or listed items into chronological or other specified order where appropriate;

4) operates keyboard and other machine controls to calculate and record data in appropriate places, to calculate and record totals, net amounts and other computations;

5) operates manual or electronic accounting machine.
40. COMPUTER PROGRAMMER

Prepares programmes to control automatic processing of data by computer:

1) studies programme intent, output requirements, nature and sources of raw input data, internal checks and other controls required, or, where available, uses specifications and instructions prepared by systems analyst;

2) breaks down problems delineated by systems analyst into their simplest elements;

3) prepares, from this breakdown, detailed logical flow charts and diagrams to establish the order in which data is to be processed, the points where decisions must be made between alternative courses of action, and the sequence of operations involved;

4) converts flow charts and diagrams into computer programme (the list of instructions which control the operation of the computer) using programme language;

5) converts the programme, or directs its conversion, into code form to derive machine-processable instructions suited to type of computer in use;

6) conducts trial run with sample data to test validity and logic of programme;

7) amends programme as necessary;

8) compiles written instructions for computer-operating staff;

9) corrects programme errors by such methods as altering programme steps and sequence;

10) analyses, reviews and rewrites programmes to increase operating efficiency or adapt to new requirements.
41. **STENOGRAPHER - TYPIST**

Takes direct dictation of correspondence, reports and other papers by hand or machine, and transcribes dictated materials into typewritten form:

1) records in shorthand, by hand or shorthand-writing machine, dictated letters, memoranda, reports or other matter;

2) types matter from shorthand notes, written drafts, recordings on dictating machine or other sources and cuts stencils;

3) uses manual, electric or electronic typewriter, or word processor;

4) may perform limited clerical duties.
INSURANCE

42. CARD- AND TAPE-PUNCHING MACHINE OPERATOR

Operates alphabetic or numeric key-punch machine, photo-composing perforator machines, special data-preparation equipment to prepare data-processing input materials, and other data-type machines similar in operation to an electric typewriter to convert data to machine readable data or to a screen with the help of a punch-card device, a punched paper tape recorder, a key-to-disc coder, magnetic tape/coder/screen/terminal, or to verify the correctness of punching:

1) loads machine with decks of cards or reels of magnetic or paper tapes;
2) sets machine for recording operation and moves switches to select appropriate functions;
3) sorts documents or listed items into chronological or other specified order where appropriate;
4) depresses keys to record data from source material in the form of perforations on card or tape or make magnetic impressions;
5) observes machine to detect faulty operation;
6) maintains record of work completed;
7) handles programme punching, which includes the correction of clerical errors.
43. **INSURANCE SALESMAN**

Sells life, accident, endowment, fire, marine and other types of insurance:

1) compiles lists of prospective customers through business and social contacts and by checking business and professional directories;

2) interviews prospective customers and determines their insurance needs and interests;

3) plans and attempts to sell insurance policies by explaining insurance coverage most suitable to clients' requirements, in terms of risks covered, premium rates and benefits:

4) quotes conditions of insurance, cost of premiums, bonus rates, cash and loan values and other benefits;

5) initiates arrangements for medical examination, property inspection or other policy stipulations;

6) informs company of clients' requests for payments of damages.
44. **CLERK OF WORKS**

Represents building architect on construction site to ensure contractor's compliance with design specifications and maintenance of desired standards of materials and workmanship:

1) confirms programme of work with contractor's agent and checks working levels, building lines, etc.;

2) inspects work as project proceeds, making practical tests using knowledge of theory and practical techniques of building, to ensure compliance with design specifications and maintenance of desired standard of materials and workmanship, and adherence to terms of contract;

3) keeps records of all excavations, foundation and other work which will be hidden by subsequent construction;

4) reports to and consults architect on progress and standards of work and any deviations from original design;

5) transmits instructions to site manager concerning work necessary to remedy defects discovered and advises him on any problems arising in relation to design specifications;

6) records details of all agreed deviations from original contract;

7) ensures that work is completed on schedule.
45. COMPUTER PROGRAMMER

Prepares programmes to control automatic processing of data by computer:

1) studies programme intent, output requirements, nature and sources of raw input data, internal checks and other controls required, or, where available, uses specifications and instructions prepared by systems analyst;

2) breaks down problems delineated by systems analyst into their simplest elements;

3) prepares, from this breakdown, detailed logical flow charts and diagrams to establish the order in which data is to be processed, the points where decisions must be made between alternative courses of action, and the sequence of operations involved;

4) converts flow charts and diagrams into computer programme (the list of instructions which control the operation of the computer) using programme language;

5) converts the programme, or directs its conversion, into code form to derive machine-processable instructions suited to type of computer in use;

6) conducts trial run with sample data to test validity and logic of programme;

7) amends programme as necessary;

8) compiles written instructions for computer-operating staff;

9) corrects programme errors by such methods as altering programme steps and sequence;

10) analyses, reviews and rewrites programmes to increase operating efficiency or adapt to new requirements.
46. **SOCIAL WORKER, GENERAL**

Helps individuals, families and/or groups to understand, overcome or lessen their personal or social problems:

1) ascertains nature, extent and cause of problem by interview and by any other available means;

2) considers all factors involved, such as relationships, environment, health, finance and other social, economic or potentially relevant factors;

3) determines type of assistance required;

4) alleviates or prevents development of social and personal problems of individuals and groups by providing or helping to provide such assistance as counselling to improve their understanding of their problems and secure their co-operation in coping with them;

5) encourages and promotes development of social and personal adjustment;

6) arranges for provision of appropriate assistance such as financial aid, employment placement, medical treatment, recreational opportunities, housing or placing in a home;

7) follows progress of cases after immediate problems have been overcome;

8) compiles case records and prepares requisite reports.
47. GOVERNMENT EXECUTIVE OFFICIAL

A - CENTRAL GOVERNMENT EXECUTIVE OFFICIAL (MIDDLE LEVEL)

Acts as member of a section or division of a department, ministry or agency of the central government dealing with particular administrative and policy matters concerning such government services as domestic affairs, foreign affairs, defence, education, environment, health, social welfare, labour, social security, industry, agriculture, justice, finance, transport, communications, staffing and organisation of government services and other government functions; performs a variety of administrative and executive tasks under the general supervision of a higher-level administrator or official:

1) consults higher level administrators or officials to obtain directions and indications of policy to be followed;

2) implements policy decisions and the provisions of laws, rules and regulations and, as necessary, devises and advises on procedures for their implementation;

3) participates in the preparation of legislation and of rules and administrative regulations to implement such legislation in matters for which the department, ministry or agency is competent;

4) provides secretarial support for official committees, working parties, etc.;

5) arranges internal meetings, prepares and circulates papers for discussion, takes minutes and ensures that follow-up action is taken;

6) administers government grants and subsidies to agriculture, housing, health, social welfare, social security, and special categories of the population;

7) inspects working conditions, including safety and health arrangements, in factories and other workplaces and enforces safety and health regulations;

8) advises and informs on matters relating to the labour market, employment placement, vocational training and guidance;

9) undertakes research not requiring specialised scientific, professional or technical qualifications, using such sources of information as government statistics, documents and files, publications and findings from academic circles and independent institutions and persons;

10) makes comparative analyses and writes reports on specific policy questions;

11) inspects, analyses and reports on the organisation of work and methods used in government services and makes proposals for changes.
B - LOCAL AUTHORITY OFFICIAL (MIDDLE LEVEL)

As a member of the staff of a local authority, undertakes administrative and professional functions under the general supervision of a higher level administrator, in areas within the competence of local authority, such as general local administration, local tax assessment and collection, land registry, public housing, health and social welfare services, childcare, school administration, construction, improvement and maintenance of roads and bridges, provision of electricity, gas and water supplies, security, maintenance of public amenities:

1) makes day-to-day decisions and enforces rules and regulations concerning the assessment and collection of local taxes, registration of births, marriages and deaths, and of electors, issues passports and other personal documents, registers aliens and issues residence permits, issues building permits and enforces municipal building codes and regulations;

2) performs social work functions in public welfare programmes, services to families and the elderly, and child day-care facilities, services to the disabled, and medical social work services, determines the eligibility and needs of applicants and recipients for assistance and services;

3) performs professional accounting work requiring knowledge of the theory and practice of recording, classification examination and analysis of the data and records of financial transactions, examines a variety of accounting documents to verify accuracy of computations and to ascertain that all transactions are properly supported, in accordance with prescribed policies and procedures, and are classified and recorded according to acceptable accounting standards.
STENOGRAPHER - TYPIST

Takes direct dictation of correspondence, reports and other papers by hand or machine, and transcribes dictated materials into typewritten form:

1) records in shorthand, by hand or shorthand-writing machine, dictated letters, memoranda, reports or other matter;

2) types matter from shorthand notes, written drafts, recordings on dictating machine or other sources and cuts stencils;

3) uses manual, electric or electronic typewriter, or word processor;

4) may perform limited clerical duties.
49. **CARD- AND TAPE-PUNCHING MACHINE OPERATOR**

Operates alphabetic or numeric key-punch machine, photocomposing perforating machines, special data-preparation equipment to prepare data-processing input materials, and other data-type machines similar in operation to an electric typewriter to convert data to machine readable data or to a screen with the help of a punch-card device, a punched paper tape recorder, a key-to-disc coder, magnetic tape/coder/screen/terminal, or to verify the correctness of punching:

1) loads machine with decks of cards or reels of magnetic or paper tapes;

2) sets machine for recording operation and moves switches to select appropriate functions;

3) sorts documents or listed items into chronological or other specified order where appropriate;

4) depresses keys to record data from source material in the form of perforations on card or tape or make magnetic impressions;

5) observes machine to detect faulty operation;

6) maintains record of work completed;

7) handles programme punching, which includes the correction of clerical errors.
50. **OFFICE CLERK, GENERAL**

Performs a variety of clerical tasks, such as those which follow, depending on nature and size of office in which employed:

1) examines incoming mail referred to him for attention and assembles information needed for preparation of reply;

2) composes letters in reply to correspondence or telephone inquiries, or to obtain information, and initiates other routine correspondence;

3) calculates and checks factors for costing, estimating, valuing or other purposes;

4) collates sales records and gives instructions for preparation of invoices and other documents in connection with sales and deliveries;

5) receives and interviews clients, employees, sales personnel or other callers, and arranges appointments and directs inquiries to appropriate persons or departments;

6) keeps and balances accounts of financial transactions and prepares statements of accounts;

7) computes time, output or other factors and calculates earnings or payments due;

8) receives payments of accounts and issues receipts;

9) receives, counts and pays out cash;

10) prepares loss or damage reports and insurance claims;

11) prepares, issues, receives or checks forms and documents in connection with the administration of national, regional or local government legislation or other matters; determines material and production requirements;

12) prepares operational scheduled orders or received orders for material and merchandise;

13) files vouchers, receipts, letters and other documents; arranges for the transport of freight and prepares relevant documents;
14) deals with complaints;
15) compiles statistical information;
16) records issues of stationery and equipment to staff and maintains records as required.
51. **FIRE-FIGHTER, GENERAL**

Fights fires as a member of a public fire-fighting force, and rescues people and property:

1) rides on special fire-fighting vehicle or boat equipped with fire-fighting equipment, water pumps, rescue material, etc. to scene of fire on receipt of fire information;

2) connects hose and directs jet of water or chemicals on fire, or uses portable fire-extinguisher in places not accessible with hose;

3) demolishes parts of buildings or other structures as necessary, to clear passage and prevent further spread of fire;

4) rescues trapped persons and administers artificial respiration and first aid to those overcome by heat or smoke;

5) performs other services during emergencies where necessary, for example, rescuing people in danger as a result of flood or storm, and extricating persons or animals from places not easily accessible;

6) maintains fire-fighting equipment in perfect working condition.
EDUCATION SERVICES

52. MATHEMATICS TEACHER (THIRD LEVEL)

Conducts courses of instruction at the third level of education (university or equivalent) in mathematics and related subjects [possesses at least a second-level university degree or equivalent in mathematics]:

1) prepares and delivers lectures to students in third-level courses in pure mathematics (including actuarial science, statistical theory, and similar academic subjects) and applied mathematics, as in design and functions of computers and operations-research analysis;

2) conducts student classes and seminar sessions, stimulating and guiding discussion of selected topics in their field of study;

3) illustrates lectures and other instruction, as appropriate, by means of demonstrations;

4) acts as tutor to individual students, including graduate students, guiding and supervising their studies;

5) advises students on academic and other matters;

6) supervises and/or marks written and practical exercises undertaken by students;

7) prepares or participates in preparing question papers for examinations and marks students' answers;

8) serves as faculty member, concerned with such matters as curriculum revision, academic planning and degree requirements.
53. **TEACHER IN LANGUAGES AND LITERATURE (THIRD LEVEL)**

Conducts courses of instruction at the third level of education (university or equivalent) in languages and literature [possesses at least second-level university degree or equivalent]:

1) prepares and delivers lectures to students in third-level courses in one or more subjects, such as one or more modern or ancient languages, literature, philology, journalism and related subjects;

2) conducts student classes and seminar sessions, stimulating and guiding discussion of selected topics in their field of study;

3) acts as tutor to individual students, including graduate students, guiding and supervising their studies and research;

4) advises students on academic and other matters;

5) supervises and/or marks written and oral exercises undertaken by students;

6) prepares or participates in preparing question papers for examinations and marks students' answers;

7) serves as faculty member, concerned with such matters as curriculum revision, academic planning and degree requirements.
54. TEACHER IN LANGUAGES AND LITERATURE (SECOND LEVEL)

Instructs pupils in an establishment of secondary education in the field of classical or modern languages and literature [possesses at least a first level university degree or equivalent in appropriate subjects and the necessary teacher training]:

1) prepares annual programmes of work in classical or modern languages and literatures within limitations of specified or standard curriculum, for classes in secondary education establishment;

2) gives instruction at the second level of education in the particular subject field, and conducts discussions;

3) maintains discipline in class;

4) illustrates instruction as appropriate;

5) prepares, assigns and corrects exercises undertaken by pupils;

6) sets, administers and marks tests and examinations;

7) keeps pupils' work performance, attendance and other records, and reports on their progress to, and discusses with, head teacher and parents.
EDUCATION SERVICES

55. MATHMATICS TEACHER (SECOND LEVEL)

Instructs pupils in an establishment of secondary education in the field of mathematics and related subjects [possesses at least a first level university degree or equivalent in appropriate subjects and the necessary teacher training]:

1) prepares annual programmes of work in the field of mathematics within limitations of specified or standard curriculum, for classes in secondary education establishment;

2) gives instruction at the second level of education in mathematics and related subjects, and conducts discussions;

3) maintains discipline in class;

4) illustrates instruction, as appropriate, by practical demonstrations;

5) prepares, assigns and corrects exercises undertaken by pupils;

6) sets, administers and marks tests and examinations;

7) keeps pupils' work performance, attendance and other records, and reports on their progress to, and discusses with, head teacher and parents.
EDUCATION SERVICES

56. TECHNICAL EDUCATION TEACHER (SECOND LEVEL)

Instructs pupils in an establishment of general or specialised secondary education, such as a technical, vocational or industrial school, in crafts, industrial arts and other technical subjects [possesses qualifications in appropriate subjects and necessary teacher training]:

1) prepares annual programme of work in the field of technical subjects, such as working in wood, metal, stone, leather or other material, technical drafting, graphic arts, photography, elementary mechanical and electrical engineering, and other industrial arts and crafts, within limitations of specified or standard curriculum, for classes in establishments of general or specialised secondary education;

2) gives instruction in basic theory underlying industrial arts and crafts, properties of materials, functions and proper use of tools and machines, safe practices and other aspects of these arts and crafts;

3) conducts discussions and supervises and guides pupils in their practical work;

4) maintains discipline in class;

5) illustrates instruction, as appropriate, by practical demonstrations;

6) prepares, assigns and marks exercises undertaken by pupils;

7) sets, administers and marks tests and examinations;

8) keeps pupils' work performance, attendance and other records, and reports on their progress to, and discusses with, head teacher and parents;

9) where appropriate, looks after stores, equipment and tools.
57. **FIRST-LEVEL EDUCATION TEACHER**

Teaches primary academic subjects and elementary principles of social behavior to children in an establishment of primary education [has at least completed secondary education and possesses necessary teacher training]:

1) prepares annual programme of work in reading, writing, arithmetic, history, geography, nature study and other primary academic subjects, within limitations of specified or standard curriculum, for class in establishment of primary education;

2) gives instruction in primary academic subjects, conducts discussions and supervises work in class;

3) maintains discipline in class and instructs pupils in elementary principles of social behaviour;

4) prepares, assigns and corrects exercises undertaken by pupils;

5) sets tests and marks pupils' work;

6) keeps children's work performance, attendance and other records, and reports on their academic progress and social adjustment to, and discusses with, head teacher and parents.
EDUCATION SERVICES

58. KINDERGARTEN TEACHER

Trains, organises and supervises activities of children (from the age of about two years up to the age at which they normally enter primary school) in kindergarten to promote their physical, mental and social development:

1) plans, organises and conducts such activities as plays, discussions, story-telling, games, singing, dancing, drawing, painting and modelling, to increase children’s understanding of their physical and social environment, stimulate and develop their self-confidence, encourage them in self-expression, foster their co-operative social behaviour and promote their healthy development;

2) looks after the physical needs of children;

3) trains children in cleanliness, obedience, patience, tolerance and other elements of social behaviour;

4) evaluates and discusses children’s progress with parents.
59. GENERAL PHYSICIAN

Conducts medical examinations, makes diagnoses, prescribes medicines, gives other forms of treatment for various kinds of diseases, disorders and injuries of the human body, and performs minor surgery according to scientific system of medicine; applies preventive medicine techniques to prevent diseases and promote good health; undertakes such other tasks as are required in general medical practice:

1) examines patients in surgery or in their own homes and makes or arranges for X-ray examinations or special tests if further information is required;

2) considers results of examinations and tests, consults specialists or other physicians as necessary and diagnoses nature of disorder;

3) prescribes or administers medicines or other remedial treatment, such as minor surgery;

4) arranges for hospital treatment when desirable;

5) advises patients on regimen necessary to maintain or restore health;

6) keeps records of patients examined, their disorders and the treatment given or prescribed;

7) certifies state of health of patients for such purposes as social security, insurance and employment;

8) advises expectant mothers during pregnancy and as required attends confinements and delivers babies.
MEDICAL, DENTAL AND OTHER HEALTH SERVICES

60. **DENTIST, GENERAL**

Performs diagnostic, preventive and curative services for a variety of dental and oral diseases and disorders, and oral surgery:

1) conducts examination to determine condition of mouth and teeth of patients, making, or arranging for, any necessary X-ray examinations or special tests;

2) notes conditions requiring treatment and decides on method of treatment;

3) administers local or general anaesthetics as necessary;

4) locates, drills, prepares and fills lesions produced by dental caries;

5) scales and polishes teeth;

6) extracts teeth which are harmful or which must be removed for other reasons;

7) takes impressions of gums, teeth and other parts of the mouth in wax or other materials, for use in making dental appliances such as artificial teeth, braces, crowns and inlays;

8) passes impressions to workshops together with all the details required by dental technicians to fabricate dentures and other appliances;

9) replaces portions of tooth crown by inlay or artificial crown, and lost teeth by bridgework and dentures fitting completed appliances;

10) provides root canal treatment;

11) treats periopical lesions and periodontal diseases;

12) carries out minor oral surgery and corrects malposition of teeth by orthodontic procedures, prescribes drugs or medicaments;

13) performs other duties such as advising patients on measures for the maintenance of oral and dental health;

14) arranges for hospital or specialist treatment where appropriate;

15) keeps case records and prepares necessary returns and reports.
MEDICAL, DENTAL AND OTHER HEALTH SERVICES

61. **PROFESSIONAL NURSE, GENERAL**

Provides professional nursing services and advice in hospitals, clinics and other establishments which provide medical care and treatment:

1) gives professional nursing care and advice to ill, injured, infirm and obstetric patients and new-born infants in hospitals, clinics and other establishments which provide medical care and treatment;

2) assists physicians and surgeons in examination and operation of patients and accompanies medical staff on rounds, noting changes in treatment prescribed and giving assistance as required;

3) administers medicines and drugs, applies surgical dressings and gives other forms of treatment prescribed by physicians and surgeons;

4) observes, evaluates and records symptoms, reactions and progress and general conditions of patients; and takes and records temperatures, pulse and respiration rates;

5) prepares patients for operations;

6) removes stitches, clips, etc.;

7) gives first-aid treatment in emergencies and attends seriously ill patients;

8) helps patients to become adjusted to place and methods of treatment;

9) washes and bathes patients and attends to their physical needs in general and makes beds;

10) helps to maintain healthy and hygienic environment for patient and takes preventive measures to check spread of communicable diseases in ward;

11) as appropriate, prepares, serves and distributes food and feeds helpless patients;

12) attends women in childbirth and cares for new-born infants;

13) gives instructions and advice regarding care of patients during convalescence;
14) assists charge nurse or sister in the organisation of work, the control of more junior nursing staff and non-medical staff, and the tuition of student and pupil nurses;

15) performs other professional nursing tasks, including supervision of rehabilitation exercises for patients or instruction in the use of orthopaedic aids.
62. AUXILIARY NURSE

Provides simple nursing services to patients, generally under the supervision of a physician or professional nurse, in a hospital or similar institution; performs a variety of simple nursing duties, such as:

1) prepares patients for examination and attends the examining physician;

2) takes patients' temperature, pulse and respiration rates;

3) gives prescribed medicines at fixed times;

4) changes dressings and gives other simple treatments;

5) feeds children and elderly patients;

6) makes beds and washes and bathes patients and attends to their physical needs and comfort in general;

7) otherwise assists nursing and medical staff as required.
63. **PHYSIOTHERAPIST**

Treats patients suffering from metabolic diseases, sprains and healing fractures and other body injuries, paralysis and circulatory and nervous disorders, etc., by massage, exercise, hydrotherapy and electrotherapy, usually as prescribed by a physician, to relieve pain and develop or restore functions:

1) ascertains from medical reports details of patients' condition and the result desired from physiotherapy;

2) plans therapy for each patient accordingly;

3) massages patients to stimulate blood circulation, relax muscles and prevent muscular wasting and relieve pain;

4) instructs patients in, and assists them with, exercises designed to improve the functioning and healing processes of the body and limbs;

5) administers treatment by heat, high-frequency, therapeutic baths or other water treatments, and by moist packs and compresses;

6) utilises mechanical devices such as vibrating and exercising machines;

7) instructs patients in correct posture and in exercises to be undertaken at home;

8) co-operates with others concerned with the rehabilitation and treatment of patients;

9) keeps case records, noting patients' progress and their reaction to therapy.
MEDICAL, DENTAL AND OTHER HEALTH SERVICES

64. MEDICAL X-RAY TECHNICIAN

Operates X-ray and other similar apparatus for medical diagnostic purposes or to give therapeutic treatment, under the direction of a radiologist, a radiotherapist or other specialist medical practitioner:

1) verifies identity of patient, procedure to be undertaken, such as radiography, fluoroscopy, cineradiography, and treatment to be given, such as by X-ray, linear accelerator or sealed radiation source;

2) checks that necessary preparations have been made for examination or treatment;

3) positions patient accurately and as comfortably as possible and ensures that adequate precautions are taken against radiation hazard to both patients and staff;

4) sets and operates equipment according to length and intensity of exposure required for X-ray photograph or treatment;

5) observes patients' condition before, during and after treatment;

6) develops, fixes, washes and dries X-ray film;

7) makes minor repairs to equipment;

8) keeps records of all radiodiagnostic work undertaken and of all radiotherapeutic treatment given;

9) otherwise assists radiotherapists or radiologists as required.
CHARWORKER

Cleans and keeps in orderly conditions the interiors of hospitals and other similar establishments; performs some or all of the following tasks:

1) scrubs, washes, mops, sweeps and polishes floors, corridors and stairs and disposes of waste or litter;

2) cleans carpets, rugs and mats with brush, beater or vacuum cleaner;

3) dusts and polishes furniture and office equipment, fixtures, fittings and other metal objects;

4) cleans kitchens, bathrooms and toilets; washes down walls and woodwork;

5) cleans inside windows.