

UKSSSC Syllabus 2022 (Workshop Instructor)

UKSSSC Exam Pattern 2022

Name Of Subject	Number Of Questions	Number Of Marks
Concerned Subjects	100	100
Time Duration: 2 Hours		
Objective Multiple Choice Questions		

UKSSSC Syllabus 2022 - (Subject Wise)

Unit-I

- System and their conversion, forces, work energy power, concept of heat and temperature, electricity, current, voltage, power, resistance, conductors, insulator, Ohm's Law, mensuration, volume and weight of simple solid bodies, perimeter, area, finding the capacity in liters of different vessels, finding lateral surface area of vessels, trigonometrical ratio, drawing instruments, letters, numbers and alphabets as per BIS, layout of drawing sheet- and title block, drawing of straight lines, geometrical constructions, rectangles, circles, polygons etc., use of different types of lines and symbols in drawing, importance and dimensioning technique as per BIS, isometric views with dimensions such as cube, rectangular block, cylinder etc., orthographic projection in first angle and third angle as per BIS

UNIT-II

- Plant layout, shop layout, safety precautions, Metals and non-metals, their alloys, properties like ductility, plasticity, hardness etc., testing and inspection of metals like iron, steel, aluminium, copper etc., heat treatment of metal and alloys, calculation of stress and strain, Hook's Law and modulus of elasticity, Hot and cold working, and other metal forming and forging operations. Terms used in limit system, fits, types of fits, basis of limit system, Indian standard system of limit and fit, calculation of fundamental deviation for shafts and holes, surface roughness and its measurement, Classification of measuring instrument, types of measuring instruments like steel rule, calipers, divider, depth gauge, telescopic gauge, micrometers, depth gauge micrometer, inside and outside micrometer, Vernier caliper, Vernier height gauge, Vernier depth gauge, Vernier gear tooth caliper, protector, adjustable bevel, combination set, universal bevel protector, slip gauges, sine bar, try square, surface plate, angle gauge blocks, autocollimator, surface gauge, ring gauge, plug gauge, snap gauge, thread gauge, feeler gauge, screw pitch gauge, radius or fillet gauge, dial indicator

UNIT-III

- Timber, seasoning of timber, defects in timber, carpentry marking measuring plammg, , boring, striking, holding and other tools used in carpentry , pattern materials, pattern making tools, pattern allowances, typos of pattern, core boxes, color coding for pattern. Cleaning of metals and wooden surface for preventive coating paint constituents, varnish,
- painting method, and equipment moulding materials, oJa,aifi"1iru,, prooporties, Moulding processes, Moulding methods, foundry tools, equipment and metal casting, smithy and forging, forgeable materials, heating devices (hearths and furnaces), forging processes, blacksmith's hand tool and appliances, smith forging operations, different forging process like upset forging, drop forging etc., defects in forging.

UNIT-IV

- Welded joints, edge preparation, welding symbols, welding positions, Gas welding, Gas cutting, gas welding tools and equipment, oxygen cylinder, acetylene cylinder, types of flames, filler rod, a.c and d.c arc welding, polarity, electrodes, arc welding equipment; metal inert gas welding (MIG), tungsten inert gas (TIG) arc welding, fluxes, welding technique, welding defects and testing, soldering, brazing. Fitting and plumbing holding tools, measuring, marking, testing and cutting tools, dies, different type of pipes, classification of pipes, Indian standard specification for pip.es, pipe fitting, taps and valves, symbols for pipe fitting and valves, pipe vice, wrenches, pipe cutting, pipe thread and thread cutting, pipe joints and bending of pipes. Metals used in sheet metal work, sheet metal tools, sheet metal operations e.g. marking, cutting, notching, folding edges, blocking etc., sheet metals machines, laying out a pattern. Rivets, material of rivets, types of rivets, method of riveting, tenns used in riveted joints, screw threads, different. type of threads, designation of screw threads, types of screw fastenings, locking device, types of nuts and bolts, keys and cotters, studs

UNIT-V

- Lathe machine, principal parts of lathe, size and specification of lathe, types of lathe, lathe accessories and attachments, lathe operations, cutting tools, drilling, types of drill machine,
- drilling operations, specification of drilling machine, reamers, counter boring, counter sinking, tapping, lapping, honing, cutting fluids, lubricants, maintenance of machine