

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI
DEPARTMENT OF MECHANICAL ENGINEERING, 2015/2016 RAIN SEMESTER EXAMINATIONS
COURSE: ENG 206 WORKSHOP PRACTICE IV TIME, 1 HOUR.

Instructions: Answer All Questions. Circle The Correct Answer On The Question And Submit Same At The End Of The Examination.

DEPARTMENT..... **SCHOOL**
NAME **REG.NO**

SECTION A

- 1 Which of the following is not a wood working machine (a) Mortise (b) Jig Saw (c) G-cramp (d) Wood Lathe
- 2 A porous and fibrous structural tissue found in the stems and roots of trees and other woody plant is known as (a) Ceramics (b) Wood (c) Adhesives (d) Resins (e) Wax
- 3 The part of wood working that involves joining together pieces of wood to produce more complex items is known as (a) Assembly (b) Gluing (c) Planning (d) Wood Joinery (e) Routing
- 4 Which of the following is not a hard wood (a) Iroko (b) Ebony (c) Cedar (d) Beech (e) Walnuts
- 5 Which of the following is an example of a softwood (a) Pine (b) Spruce (c) Cedar (d) Balsam (e) All of the above
- 6 Which of the following is a characteristics of good wood (a) it should be free from defects (b) it should be from heart of tree (c) it should be easily workable, strong and heavy (d) it should have high resistance to fire (e) All of the above
- 7 Which of the following is not a holding tool (a) Gimlet (b) Bench hook (c) Bend vice (d) G – Cramp
- 8 Which of the following is not a Boring and drilling tool (a) Auger (b) Wheel brace (c) Brace and bits (d) Chisels
- 9 Which of the following is a woodwork tool (a) Pencil (b) Bench stop (c) Mallet (d) None of the above (e) All of the above
- 10 Which of the following is not type of wood joint (a) Dovetail Joint (b) Mortise and tenon Joint (c) Staggered Joint (d) Tongue and Groove Joint (e) Rabbet Joint
- 11 Which of the following is not a characteristics of softwood (a) Light in colour and weight (b) Easy to be worked (c) its fibre are quite close and compact (d) all of the above (e) None of the above
- 12 The ability of a metal to flow and fill a mold is known as (a) Shrinkage (b) Fluidity (c) Liquidation (d) Pouring (e) Pattern
- 13 The top half of the mold is called (a) Riser (b) Cope (c) Drag (d) Gate (e) Runner
- 14 The box that contains the mold aggregate is known as (a) Pattern (b) Core (c) Flask (d) Cavity (e) None of the above
- 15 An extra void created in the mold that will also be filled with molten metal is called (a) Runner (b) Drag (c) Gate (d) Riser
- 16 The pieces of metals placed within the mold cavity to absorb heat and promote solidification of molten metal is known as (a) Internal Chills (b) Ingate (c) Chaplet (d) Powder (e) None of the above
- 17 Sand box usually inserted into the mold to produce the internal features of casting like holes is called (a) Core (b) Drag (c) Flask (d) Pattern (e) Mold Cavity
- 18 Which of the following is not a casting terminology (a) Pattern (b) Flask (c) Crank (d) Basin (e) Gating System
- 19 The pouring basin is located at ----- part of the mold (a) Middle (b) Bottom (c) Top (d) Outside
- 20 A pattern used to produce the main pattern for casting is (a) Model (b) Auxiliary pattern (c) Master pattern (d) Prototype
- 21 The spindle is available in all the machine tool except (a) Milling machine (b) Shaper (c) Lathe (d) Boring machine
- 22 The maximum diameter of workpiece that can be machined by the lathe is called (a) Swing of the lathe (b) Workpiece area (c) Lathe diameter (d) Range (e) None of the above
- 23 The metal removed during machining process is called (a) Feed (b) Flank (c) Tool post (d) Chip (e) Scrap
- 24 The type of shaving produced during machining operation depends on any of the following (a) The machine (b) The operator (c) The type of material (d) All of the above (e) None of the above
- 25 Plastic deformation of a tool can be checked by the following except (a) Proper selection of cutting tool material (b) Correct tool geometry (c) Good cutting condition (d) High depth of cut.
- 26 Which of these machine tools is not associated with multi-point cutting tool (a) Lathe (b) Shaping machine (c) Drill (d) Milling machine
- 27 Mechanical joining include the following except (a) Gluing (b) Fastening (c) Riveting (d) Folded joint
- 28 Advantages of welded joint includes the following except (a) High strength (b) Maximum efficiency (c) Possibility of distortion of members (d) Takes less time (e) Lighter in weight

- 29 Which of the following is not a type of welding process (a) Thermal (b) Mechanical (c) Structural (d) Chemical (e) Chemical plus thermal
- 30 The process of Joining two metal pieces by means of heat and filler metal whose melting point is lower than the melting point of the metals to be joined is known as (a) Soldering (b) Brazing (c) Welding (d) Forging (e) Casting
- 31 Which of the following operation cannot be carried out on a lathe machine (a) Facing (b) Threading (c) Casting (d) Reaming
- 32 _____ indicates the ease with which two similar or dissimilar metals are joined by fusion with or without the use of filler metal (a) Ductility (b) Weldability (c) Malleability (d) Toughness (e) Plasticity
- 33 The flame obtained by supplying an excess of acetylene is (a) Neutral Flame (b) Carbonizing flame (c) Oxidizing flame
- 34 The bed of a lathe is made of _____ (a) Cast iron (b) Copper (c) Aluminum (d) Nickel (e) Manganese
- 35 Surface finishing can be accomplished by the following except (a) Lapping (b) Buffing (c) Pitting (d) Grinding (e) Polishing
- 36 The type of welding in which the filler material used is different from the parent material is called (a) Chemical welding (b) Heterogeneous welding (c) Autogenous welding (d) Brazing (e) Homogenous welding
- 37 Which of the following is not a feature of a single point tool (a) Face (b) Flank (c) The corner (d) The wing (e) Cutting edge
- 38 Which of the following is not a type of machine tool (a) Lathe (b) Drill (c) Shaper (d) Welding Machine (e) Milling Machine
- 39 The highest speed of a lathe with swing of 400mm at cutting speed of 20m/min is (a) 320rpm (b) 300rpm (c) 400rpm (d) 280rpm
- 40 In machining, _____ is the rate at which the cutting tool penetrates the workpiece (a) Face (b) Feed (c) Removal (d) chip

SECTION B

- 41 Hardwoods are produced by the cone bearing trees (a) True (b) False
- 42 Preservation of wood is done in order to protect the timber from internal decay and attack of insects. (a) True (b) False
- 43 Evergreen trees keep their leaves all year round while deciduous trees lose their leaves in winter (a) True (b) False
- 44 Softwoods are produced by broad leaved trees whose seeds are enclosed in fruit (a) True (b) False
- 45 Softwoods are resinous and have good tensile resistance (a) True (b) False
- 46 Hardwoods are widely used for doors, furniture and joinery because they have both good tensile and shear resistance (a) True (b) False
- 47 Any chemical used for wood preservation must be inflammable and should not be poisonous for insects and fungi (a) True (b) False
- 48 In butt joint, the ends are left square while in mitered butt joint, the ends are left at 45 degree angle (a) True (b) False
- 49 The tenon is a square hole carved into the side of a board while the mortise is a protruding piece coming off the end of a second board (a) True (b) False
- 50 Shrinkage is an example of an allowance in casting process. (a) True (b) False
- 51 The pattern is a replica of the final casting. (a) True (b) False
- 52 The quantity of liquid metal contraction depends on the coefficient of thermal contraction of the metal being cast (a) True (b) False
- 53 The basin is a channel through which the molten metal is introduced to the mold. (a) True (b) False
- 54 The riser indicates when the mold cavity is full. (a) True (b) False
- 55 Casting involves melting of metal at an elevated temperature and pouring into a mold to form the desired shape (a) True (b) False
- 56 Complex shapes, parts with hollow section, internal cavities and irregular curved surfaces cannot be produced by casting (a) True (b) False
- 57 Arc welding is the process of joining two metal pieces by means of heat and filler metal whose melting point is lower than the melting point of metals to be joined. (a) True (b) False
- 58 Autogenous welding is one in which no filler material is added to the welded joint interface. (a) True (b) False
- 59 Gas welding is a type of fusion welding in which the heat is obtained by the combustion of a fuel. (a) True (b) False
- 60 A continuous chip is produced when ductile materials are machined with high cutting speed. (a) True (b) False