

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI
DEPARTMENT OF MECHANICAL ENGINEERING, 2014/2015 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.

NAME.....
DEPT.....

REG.NO.....
SCHOOL.....

SECTION A

- 1 Working in hazardous locations without adequate protection is an (a) unsafe act (b) unsafe condition
- 2 Green as a safety colour means (a) Prohibition (b) Safe condition (c) Mandatory (d) Danger
- 3 Emphasis on production rather than safety is an example of (a) Basic cause (b) direct cause of accident,
- 4 Which of the following is not a designation of wrought copper (a) C10200 (b) C11600 (c) C11700.
- 5 The SAE designation for molybdenum-steel is (a) 14XX (b) 31XX (c) 40XX (d) 43XX
- 6 Which of these is not a type of heat treatment of metals (a) Annealing (b) Rolling (c) Tempering
- 7 The lathe machine cannot be used for (a) Drilling (b) Boring (c) Facing (d) Rolling
- 8 Which of the following is not a primary shaping process (a) Forging (b) Drawing (c) Belt grinding
- 9 Machining a ductile material usually produces (a) continuous chips (b) Discontinuous chips (c) Continuous chip with up edge.
- 10 In a shaping machine --- is usually stationary (a) work piece (b) cutter (c) boom
- 11 The suitable spindle speed for a lathe handling a work piece of 20mm with a cutting speed of 22m/min is (a) 100 rev (b) 35 rev/min (c) 20 rev/min.
- 12 The drill is an example of---- cutting tool (a) single point (b) multi-point (c) continuous points
- 13 The odd term in the group of working tools is (a) Try-square (b) Tee-square (c) Hack saw (d) Twist drill
- 14 An inclusive term covering processes such as welding, brazing, soldering and mechanical fastening is called (a) Joining (b) joining (c)broaching (d) all of the above
- 15 For a good weld, failure will occur at (a) welded joint (b) outside the joint (c) all of the above (d) none of the above
- 17 In welding, the choice of the filler material is guided by parent material (a) thickness (b) tensile strength (c) geometry (d) metallurgical structure
- 18 Which is the most friendly welding environment (a) Northern hemisphere (b) Southern hemisphere (c) outer space (d) none of the above
- 19 One of these is not a property of moulding sand (a) plasticity (b) Flowability (c) Bulkiness (d) permeability
- 20 Which of the following is not a wood working machine (a) wood shaper (b) mortise (c) G-cramp

SECTION E

- 21 Cope is not a casting terminology (a) True (b) False
- 22 Treating to modify the chemical composition of the cast material is not a casting process (a) True (b) False
- 23 The best way to reproduce complex irregular and curved surfaces is usually not by casting (a) True (b) False
- 24 Photographing is an advanced casting while photocopying is not True (b) False
- 25 High temperature ranges is a compulsory ingredient for every casting operation (a) True (b) False
- 26 Molten metals are not usually unprotected using fluxes during welding (a) True (b) False
- 27 Who mass produces wood products? (a) cabinet worker (b) mill worker (c) pattern maker (d) all wood workers
- 28 Defects in casting cannot be caused by the reaction between oxygen and the surroundings (a) True (b) False
- 29 Soft woods are usually not products of coniferous trees (a) True (b) False
- 30 The rate of moisture loss in lumber is dependent on wind velocity (a) True (b) False
- 31 The lathe is a general purpose machine (a) true (b) false
- 32 Correct tool geometry is one of the ways to avoiding cutting tool failure (a) True (b) False
- 33 Coolants used in machining also acts as lubricants (a) True (b) False
- 34 There only five basic machine tools in any standard workshop (a) True (b) False
- 35 The milling machine is best for producing cylindrical surfaces (a) True (b) False
- 36 Every machine tool has a headstock, tailstock and bed (a) True (b) False
- 37 The grinder is good for circular holes (a) True (b) False
- 38 In lathe operations, the tool rotates while the work piece remain stationary (a) True (b) False
- 39 Continuous chip formation occurs in low cutting speed (a) True (b) False
- 40 There are only five types of chips (a) True (b) False
- 41 Cutting speed is expressed in mm/rev True (b) False
- 42 Threading is a surface finishing process (a) True (b) False
- 43 The shaper is multi-cyclic (a) True (b) False
- 45 Cutting fluids is used for decolourising the cutting bed (a) True (b) False
- 46 Welding of two parts can be achieved solely mechanically
- 47 Welding exclude joining of non-metals (a) True (b) False
- 48 Thermal energy from oxy-acetylene flame cannot be used for weld similar metals (a) True (b) False
- 49 Electric resistances welding cannot produce a lap weld (a) True (b) False
- 50 Welding is a manufacturing process (a) True (b) False
- 51 Covalent forces are stronger bonding forces than molecular forces (a) True (b) False
- 52 In welding, it is required that crystalline planes of adjacent crystals be of the same orientation (a) True (b) False
- 53 Oxygen does not promote hardness and brittleness in welds (a) True (b) False
- 54 Hard woods readily catches fire (a) True (b) False
- 55 Foundry technologies is an aspect of material processing (a) True (b) False
- 56 Slow filling and high heat loss during casting can lead to cold shuts (a) True (b) False
- 57 Risers are designed to conserve materials (a) True (b) False
- 58 Unsafe acts and unsafe conditions are primary causes of accidents (a) True (b) False
- 59 The use of protective equipment in workshops is an example of safe condition (a) True (b) False
- 60 Safety is the judgment of the acceptability of danger (a) True (b) False