

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI
DEPARTMENT OF MECHANICAL ENGINEERING, 2013/2014 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.....REG.NO.....

DEPT.....SCHOOL.....

- 1 Which of the following is an unsafe act in a workshop? (a) Poor illumination (b) Excessive noise (c) Negligence of warning signs
- 2 Yellow as a safety colour means (a) Prohibition (b) Safe condition (c) Danger
- 3 Porosity in a casting may be caused by (a) Shrinkage (b) Gases (c) All of the above
- 4 Which of the following is not a form of allowance made in a casting process? (a) Shrinkage (b) Porosity (c) Machining (d) Drain
- 5 Which of the following is not a casting defect? (a) metallic projections (b) cavities (c) inclusions (d) Shrinkage.
- 6 The channels that carry the molten metal from the sprue to the mold cavity is called (a) risers (b) runners (c) all of the above (d) none of the above
- 7 The following are properties of a core sand except (a) collapsibility (b) yieldability (c) shrinkability (d) refractoriness
- 8 Which of the following is not a type of inspection? (a) continuous inspection (b) sample inspection (c) 100% inspection
- 9 The casting box which contains the molding aggregate is called (a) flask (b) core (c) cope
- 10 The ingredient that has the highest effect on the grade of a steel is (a) iron (b) carbon (c) nickel
- 11 The ability of a metal to be rolled or hammered without breaking is called (a) toughness (b) ductility (c) malleability
- 12 According to Society of Automotive Engineers, Nickel steel is designated by (a) 34XX (b) 23XX (c) 24XX
- 13 The weldability of two metals depends on their (a) metallurgical composition (b) fracture strength (c) yield strength (d) all of the above
- 14 A filler material can be employed for this type of welding (a) autogeneous (b) heterogeneous (c) homogeneous (d) all of the above
- 15 An inclusive term covering processes such as welding, brazing, soldering and mechanical fastening is called (a) bonding (b) joining (c) broaching (d) all of the above
- 16 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 Welding is (a) a heat treatment (b) a hot forming process (c) a manufacturing process (d) all of the above
- 20 Welding utilizes all but one of the following forces (a) van der waals (b) metallic (c) electrostatic (d) ionic

- 21 The metallic charge to be melted in any furnace consists of the following except (a) copper (b) foundry (c) iron scraps (d) steel scraps and pig iron
- 22 Limestone in cupola melting is required to (a) fuel the furnace (b) improve the melting operation (c) reduce the metal static conditions (d) flux the ash in coke
- 23 The iron casting process used when high precision and good surface finish is required is (a) vacuum moulding (b) decasting (c) investment moulding (d) shell moulding
- 24 The cast iron produced which consists of metastatic carbide in a pearlitic matrix is (a) ductile (b) white iron (c) grey cast iron (d) malleable cast iron
- 25 The selection of a particular type of wood for a job will be influenced by the following qualities except (a) hardness (b) easy working properties (c) freedom from warp (d) compression strength
- 26 All but one is not a seasoning defect in lumber (a) decay (b) bow (c) crook (d) cup
- 27 Who mass produces wood products? (a) cabinet worker (b) mill worker (c) pattern maker (d) all wood workers
- 28 Which of the following is not a primary shaping process (a) forging (b) drawing (c) belt grinding
- 29 Machining a ductile material usually produces (a) continuous chips (b) discontinuous chips (c) continuous chips with built up edge
- 30 The drill is an example of (a) single point (b) multi point (c) continuous points, cutting tool
- 31 The lathe is a general purpose machine (a) true (b) false
- 32 Threading is a surface finishing process (a) true (b) false
- 33 A machine tool may be standard type or special purpose (a) true (b) false
- 34 A machine tool is a powered equipment designed to perform cutting operation (a) true (b) false
- 35 Oxygen promotes hardness and brittleness in welds (a) true (b) false
- 36 Electric resistance welding can not produce a lap weld (a) true (b) false
- 37 Welding excludes joining of non metals (a) true (b) false
- 38 Every standard workshop must have good booking procedure (a) true (b) false
- 39 The grinder grinds circular holes (a) true (b) false
- 40 Cutting fluid is a lubricant (a) true (b) false
- 41 The cutting speed is expressed in min/rev (a) true (b) false
- 42 Continuous chip formation occurs in low cutting speed (a) true (b) false
- 43 A shaper is a monocyclic cutter (a) true (b) false
- 44 The spindle is common to all basic machine tools (a) true (b) false
- 45 In milling operation work piece remains stationary while the cutter rotates (a) true (b) false
- 46 In lathe operations the cutter rotates while the work piece remains stationary (a) true (b) false
- 47 The lathe machining has only headstock and tailstock (a) true (b) false (a) true (b) false
- 49 Conifers are examples of endogenous trees (a) true (b) false
- 50 Hard wood is obtained from trees that have broad leaves (a) true (b) false