**PATFIN HIGH SCHOOL, AKESAN, LAGOS STATE**

**THIRD TERM EXAMINATION [2018/2019]**

**SUBJECT: BASIC TECHNOLOGY CLASS: J. S. S. 2**

**SECTION A OBJECTIVES**

**Instruction: answer all questions in this section. DURATION: 1 hour 30 mins**

1. Hydraulic systems are also categorized under \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ systems.
2. Submarine b) Helicopter c) Caterpillar d) Pneumatic
3. Chains are made of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Wood b) Rubber c) Plastic d) Metal
5. The following professionals can be seen on a building construction site EXCEPT \_\_\_\_\_.
6. Plumber b) Bricklayer c) Caterer d) Electrician
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is harvested from trees.
8. Wood b) Table c) Ceiling d) Iron
9. A polygon with 8 sides is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. Pientygon b) Ninogon c) Octagon d) Hentagon
11. Friction is the force which \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
12. Opposes motion b) Causes movement c) Generates energy d) Increases motion
13. Gears drives are used o transmit \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
14. Force b) Energy c) Work d) Power
15. Site preparation includes the following EXCEPT \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
16. Cutting of grass b) Moulding of blocks c) Uprooting of trees d)Removal of top soil
17. Gear ratio can be used to determine the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
18. Speed of rotation b) Number of gears c) Location of gears d) Type of gear
19. Which of the following is not a woodwork machine?
20. Band saw b) Circular saw c) Centre lathe d) Surface planer
21. A good example of the use of belt drive is in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
22. Bicycle b) Motor cycle c) Printing machine d) Grinding machine
23. The following are disadvantages of friction except it causes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
24. Power loss b) Heating of the engine c) Decrease in efficiency d) Increase in speed
25. The process of transferring a building plan to the ground is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
26. Timbering b) Site preparation c) Surveying d) Setting-out
27. Which of the following devices is used for lifting a car when replacing the tyre?
28. Air compressor b) Hydraulic jack c) Vacuum pump d) Wheel spanner
29. The preliminary work done to keep the site ready for the construction of a building is called
30. Site preparation b) Excavation c) Setting-out d) Timbering
31. Which of the following is NOT a tool used for sit preparation?
32. Axe b) Trowel c) Cutlass d) Hoe
33. Ferrous metals contain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
34. Copper b) Iron c) Z inc d) Chrome
35. Which of the following is used in the transmission of motion in a bicycle?
36. Pedal b) Gear c) Tyre d) Chain
37. The fractional part of a circumference is \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
38. Diameter b) Arc c) Circumference d) Radius
39. When compressed air is used to transmit energy, it is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
40. Hydraulic b) Pneumatic c) Pump d) Turbine
41. Which of the following is not used for setting out?
42. Steel rule b) Theodelite c) Pegs d) Steel square
43. In drawing an arc, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is used.
44. Compass b) Protractor c) Ruler d) Divider
45. The following are examples of quadrilateral EXCEPT
46. Rhombus b) Kite c) Hexagon d) Square
47. Hacksaw is a tool used for cutting \_\_\_\_\_\_\_\_\_.
48. Wood b) Plastic c) Ceramic d) Metal
49. \_\_\_\_\_\_\_\_ produces beautifully turned wooden articles from long pieces of wood.
50. Surface planer b) Thickness sander c) Band saw d) Wood lathe

**SECTION B SUB-OBJECTIVE**

**FILL IN THE GAPS**

1. \_\_\_\_\_\_\_\_\_\_\_\_ quadrilateral has equal length on all sides.
2. Portable power tools are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Hacksaw is used to cut \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. \_\_\_\_\_\_\_\_\_ causes wearing away of the soles of our shoes.
5. \_\_\_\_\_\_\_\_\_ are used for changing direction of rational force from one axis to another.

**SECTION C THEORY**

**ANSWER THREE QUESTIONS. NUMBER ONE IS COMPULSORY.**

1. a) Define Gear ratio and Gear speed.
2. A gear has 100 teeth and speed of 5RPM. The gear provides drive for another gear with 20 teeth. Determine the speed of the second gear.
3. If the gear ratio of a particular gearing system is 10:1 and the number of teeth of driver gear is 50, what will be the number of teeth of driven gear?

2 a) Define Belt and Chain drive.

b) Give two examples each of 2a) above.

c) State 2 uses of both drives.

d) State 2 advantages and disadvantages of chain and belt drives.

3 a) Define Gear.

b) List 6 types of gear.

c) State 2 uses of gears.

4 a) Define Hydraulic and Pneumatic devices.

b) List 4 types of 4a) above.

c) State 4 uses of Hydraulic and Pneumatic machines.

5 a) Define Site preparation and Setting out.

b) List 2 two tools each in site preparation and setting out.

c) List and explain 2 techniques of site preparation.

d) List 2 fittings used to connect pipes.