

MODEL QUESTION PAPER

Polytechnic Diploma – Skill Assessment

(Branch-Specific | For Reference)

This Model Question Paper is provided to help candidates understand the assessment structure, format, and branches covered under the Polytechnic Diploma Skill Assessment. It is intended only for reference and does not represent the actual examination paper.

Assessment Snapshot

- **Assessment Type:** Model Question Paper
 - **Assessment Mode:** Online
 - **Question Format:** Objective Type (MCQs)
 - **Total Number of Questions:** 20
 - **Pass Criteria:** 75%
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Degree	Specialization
Polytechnic Diploma	Computer Science
Polytechnic Diploma	Electrical
Polytechnic Diploma	Civil
Polytechnic Diploma	Mechanical

Note for Candidates

This is a **model reference document** intended for **general understanding only**

MODEL QUESTION PAPER

Polytechnic Diploma – Computer Science

20 MCQs with Answers

1. A computer is an electronic device that:

- A. Only stores data
- B. Only processes data
- C. Accepts data, processes it, and produces output
- D. Only displays information

 **Answer: C**

2. Which of the following is the brain of the computer?

- A. RAM
- B. Hard Disk
- C. CPU
- D. Monitor

 **Answer: C**

3. Which memory is volatile?

- A. ROM
- B. Hard Disk
- C. RAM
- D. Pen Drive

 **Answer: C**

4. Which unit performs arithmetic and logical operations?

- A. Control Unit
- B. Memory Unit
- C. ALU
- D. Input Unit

 **Answer: C**

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5. Which number system is used by computers?

- A. Decimal
- B. Octal
- C. Binary
- D. Hexadecimal

 **Answer: C**

6. Which of the following is an input device?

- A. Printer
- B. Monitor
- C. Keyboard
- D. Plotter

 **Answer: C**

7. What does CPU stand for?

- A. Central Process Unit
- B. Control Processing Unit
- C. Central Processing Unit
- D. Computer Processing Unit

 **Answer: C**

8. Which software is used to manage computer hardware?

- A. Application software
- B. Utility software
- C. Operating system
- D. Programming software

 **Answer: C**

9. Which of the following is an operating system?

- A. MS Word
- B. Windows

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- C. Chrome
- D. Excel

 **Answer: B**

10. Which programming language is considered low-level?

- A. C
- B. Python
- C. Java
- D. Machine language

 **Answer: D**

11. What is the full form of HTML?

- A. Hyper Text Markup Language
- B. High Text Machine Language
- C. Hyper Tool Markup Language
- D. Hyperlinks and Text Markup Language

 **Answer: A**

12. Which data structure follows LIFO principle?

- A. Queue
- B. Stack
- C. Array
- D. Linked List

 **Answer: B**

13. Which symbol is used for single-line comments in C?

- A. /* */
- B. #
- C. //
- D. %%

 **Answer: C**

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14. Which of the following is a database?

- A. MS Word
- B. MS Excel
- C. MS Access
- D. Paint

 **Answer: C**

15. Which protocol is used for web browsing?

- A. FTP
- B. SMTP
- C. HTTP
- D. POP

 **Answer: C**

16. What does RAM stand for?

- A. Read Access Memory
- B. Random Access Memory
- C. Read Only Memory
- D. Rapid Access Memory

 **Answer: B**

17. Which device is used to connect a computer to the internet?

- A. Scanner
- B. Printer
- C. Modem
- D. Joystick

 **Answer: C**

18. Which storage device has the highest speed?

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- A. Hard Disk
- B. CD-ROM
- C. RAM
- D. Pen Drive

 **Answer: C**

19. Which software helps in virus protection?

- A. Compiler
- B. Antivirus
- C. Operating system
- D. Interpreter

 **Answer: B**

20. What is the extension of a C program file?

- A. .java
- B. .cpp
- C. .c
- D. .cs

 **Answer: C**

MODEL QUESTION PAPER

Polytechnic Diploma – Electrical Engineering

20 MCQs with Answers

1. Electricity is the flow of:

- A. Neutrons
- B. Protons
- C. Electrons
- D. Atoms

 **Answer: C**

2. The SI unit of electric current is:

- A. Volt
- B. Ampere
- C. Ohm
- D. Watt

 **Answer: B**

3. Ohm's Law is given by:

- A. $V = IR$
- B. $P = VI$
- C. $I = V + R$
- D. $R = VI$

 **Answer: A**

4. The unit of electrical resistance is:

- A. Ampere
- B. Volt
- C. Ohm
- D. Watt

 **Answer: C**

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5. Which instrument is used to measure electric current?

- A. Voltmeter
- B. Ammeter
- C. Wattmeter
- D. Energy meter

 **Answer: B**

6. Which material is a good conductor of electricity?

- A. Rubber
- B. Glass
- C. Copper
- D. Plastic

 **Answer: C**

7. The unit of electrical power is:

- A. Joule
- B. Watt
- C. Ohm
- D. Volt

 **Answer: B**

8. Which device converts electrical energy into mechanical energy?

- A. Generator
- B. Transformer
- C. Electric motor
- D. Battery

 **Answer: C**

9. Which type of current is supplied to homes?

- A. DC
- B. AC

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- C. Pulsating DC
- D. High frequency AC

 **Answer: B**

10. The frequency of AC supply in India is:

- A. 25 Hz
- B. 40 Hz
- C. 50 Hz
- D. 60 Hz

 **Answer: C**

11. Which device is used to step up or step down voltage?

- A. Motor
- B. Generator
- C. Transformer
- D. Rectifier

 **Answer: C**

12. Fuse is used to:

- A. Increase voltage
- B. Reduce current
- C. Protect circuit from overload
- D. Measure power

 **Answer: C**

13. The power factor of a purely resistive circuit is:

- A. 0
- B. 0.5
- C. 0.8
- D. 1

 **Answer: D**

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14. Which motor is commonly used in ceiling fans?

- A. DC motor
- B. Stepper motor
- C. Single-phase induction motor
- D. Synchronous motor

 **Answer: C**

15. Which law states that induced EMF opposes the cause producing it?

- A. Ohm's Law
- B. Faraday's Law
- C. Lenz's Law
- D. Kirchhoff's Law

 **Answer: C**

16. Which component stores electrical energy in an electric field?

- A. Resistor
- B. Inductor
- C. Capacitor
- D. Fuse

 **Answer: C**

17. Which instrument measures electrical energy consumption?

- A. Wattmeter
- B. Voltmeter
- C. Ammeter
- D. Energy meter

 **Answer: D**

18. Short circuit occurs when:

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- A. Load is high
- B. Resistance is very high
- C. Resistance is very low
- D. Voltage is low

 **Answer: C**

19. Which safety device protects from earth leakage?

- A. Fuse
- B. MCB
- C. ELCB
- D. Switch

 **Answer: C**

20. Which color wire is used for earthing?

- A. Red
- B. Black
- C. Green
- D. Blue

 **Answer: C**

MODEL QUESTION PAPER
Polytechnic Diploma – Civil Engineering
20 MCQs with Answers

1. Civil engineering mainly deals with:

- A. Machines
- B. Electrical systems
- C. Design and construction of structures
- D. Computer systems

 **Answer: C**

2. Which material is most commonly used in construction?

- A. Timber
- B. Steel
- C. Concrete
- D. Glass

 **Answer: C**

3. Cement is mainly used as:

- A. Filler material
- B. Binding material
- C. Finishing material
- D. Waterproofing material

 **Answer: B**

4. Which test is used to check the workability of concrete?

- A. Compression test
- B. Tensile test
- C. Slump test
- D. Flexural test

 **Answer: C**

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5. The standard unit of force is:

- A. Kg
- B. Newton
- C. Joule
- D. Pascal

 **Answer: B**

6. Which foundation is suitable for weak soil?

- A. Isolated footing
- B. Strip footing
- C. Raft foundation
- D. Stepped footing

 **Answer: C**

7. The process of measuring land is called:

- A. Levelling
- B. Surveying
- C. Excavation
- D. Mapping

 **Answer: B**

8. Which instrument is used to measure horizontal angles?

- A. Dumpy level
- B. Auto level
- C. Theodolite
- D. Measuring tape

 **Answer: C**

9. Bricks are usually tested for:

- A. Color
- B. Shape

Note for Candidates

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- C. Compressive strength
- D. Weight

 **Answer: C**

10. The standard size of a brick (India) is:

- A. $200 \times 100 \times 100$ mm
- B. $190 \times 90 \times 90$ mm
- C. $180 \times 80 \times 80$ mm
- D. $210 \times 110 \times 110$ mm

 **Answer: B**

11. Which steel is used for reinforcement in RCC?

- A. Mild steel
- B. HYSD bars
- C. Stainless steel
- D. Cast iron

 **Answer: B**

12. Curing of concrete is done to:

- A. Increase setting time
- B. Improve strength and durability
- C. Improve appearance
- D. Reduce weight

 **Answer: B**

13. Which structure resists lateral earth pressure?

- A. Column
- B. Beam
- C. Retaining wall
- D. Lintel

 **Answer: C**

Note for Candidates

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14. Which test determines soil bearing capacity?

- A. Proctor test
- B. Plate load test
- C. Permeability test
- D. Atterberg limits test

 **Answer: B**

15. The unit weight of water is approximately:

- A. 1 kN/m³
- B. 5 kN/m³
- C. 9.81 kN/m³
- D. 15 kN/m³

 **Answer: C**

16. Which component mainly resists tensile stress in RCC?

- A. Cement
- B. Aggregate
- C. Sand
- D. Steel

 **Answer: D**

17. Which road is designed for high-speed traffic?

- A. Village road
- B. District road
- C. State highway
- D. National highway

 **Answer: D**

18. The main function of a beam is to:

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- A. Support vertical loads
- B. Transfer load horizontally
- C. Resist bending
- D. Provide foundation

 **Answer: C**

19. Which paint is commonly used for steel structures?

- A. Emulsion paint
- B. Distemper
- C. Enamel paint
- D. Whitewash

 **Answer: C**

20. Which document shows the front view of a building?

- A. Plan
- B. Section
- C. Elevation
- D. Layout

 **Answer: C**

MODEL QUESTION PAPER

Polytechnic Diploma – Mechanical Engineering

20 MCQs with Answers

1. Mechanical engineering primarily deals with:

- A. Electrical circuits
- B. Machines and mechanical systems
- C. Computer programming
- D. Chemical processes

 **Answer: B**

2. Which simple machine is a lever?

- A. Pulley
- B. Inclined plane
- C. Crowbar
- D. Screw

 **Answer: C**

3. The SI unit of force is:

- A. Joule
- B. Newton
- C. Watt
- D. Pascal

 **Answer: B**

4. Which property indicates resistance to scratching?

- A. Toughness
- B. Ductility
- C. Hardness
- D. Elasticity

 **Answer: C**

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5. Which device converts mechanical energy into electrical energy?

- A. Motor
- B. Generator
- C. Compressor
- D. Pump

 **Answer: B**

6. Which type of stress is induced by torsion?

- A. Tensile stress
- B. Compressive stress
- C. Shear stress
- D. Bending stress

 **Answer: C**

7. Which machine part reduces friction between moving parts?

- A. Gear
- B. Shaft
- C. Bearing
- D. Pulley

 **Answer: C**

8. Which thermodynamic law is also known as the law of energy conservation?

- A. Zeroth law
- B. First law
- C. Second law
- D. Third law

 **Answer: B**

9. Which tool is used to measure internal diameter?

- A. Vernier caliper
- B. Micrometer

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- C. Screw gauge
- D. Steel rule

 **Answer: A**

10. Which type of welding uses electric arc?

- A. Gas welding
- B. Arc welding
- C. Resistance welding
- D. Forge welding

 **Answer: B**

11. The efficiency of a machine is defined as:

- A. Input / Output
- B. Output / Input
- C. Input \times Output
- D. Input – Output

 **Answer: B**

12. Which lubricant is used for high-speed machinery?

- A. Grease
- B. Oil
- C. Graphite
- D. Solid wax

 **Answer: B**

13. Which manufacturing process removes material?

- A. Casting
- B. Forging
- C. Machining
- D. Moulding

 **Answer: C**

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14. Which component stores rotational energy?

- A. Gear
- B. Shaft
- C. Flywheel
- D. Clutch

 **Answer: C**

15. Which IC engine uses spark ignition?

- A. Diesel engine
- B. Petrol engine
- C. Gas turbine
- D. Steam engine

 **Answer: B**

16. Which metal is most commonly used in machine parts?

- A. Aluminum
- B. Copper
- C. Cast iron
- D. Zinc

 **Answer: C**

17. Which brake works by friction?

- A. Hydraulic brake
- B. Disc brake
- C. Air brake
- D. Magnetic brake

 **Answer: B**

18. Which type of transmission uses friction?

Note for Candidates

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- A. Gear drive
- B. Chain drive
- C. Belt drive
- D. Shaft drive

 **Answer: C**

19. The purpose of a clutch is to:

- A. Increase speed
- B. Increase torque
- C. Engage and disengage power
- D. Reduce friction only

 **Answer: C**

20. Which heat treatment process increases hardness?

- A. Annealing
- B. Normalizing
- C. Quenching
- D. Tempering

 **Answer: C**
