

**DIP-C-166**

**DMPS-1**

**DIPLOMA EXAMINATION  
DECEMBER, 2020.**

**Mobile Phone Servicing  
BASIC ELECTRONICS**

Time : 3 hours

Maximum marks : 75

1. Section A – Consist of 20 multiple choice question Each question carries one mark.
2. Section B – Consists of eight short answer question. Five questions are to be answered. Each question should be 100 words, Each question carries five marks.
3. Section C – Consists of five long answer questions. Three Questions are to be answered. Each question should be 250 words, each question carries ten marks.

SECTION A — (20 × 1 = 20 marks)

Answer ALL questions.

Choose the correct answer :

1. In most metals are good conductors, The number of electrons in the outermost orbits is
  - (a) One
  - (b) Two
  - (c) Three
  - (d) None of the above

2. The unit of current is
- (a) Ampere                      (b) Henry  
(c) Farad                        (d) Volts
3. Valency electrons have the \_\_\_\_\_ energy
- (a) Maximum                    (b) Minimum  
(c) Average                      (d) None of the above
4. A P-Type as well as N- type semiconductor is electrically \_\_\_\_\_
- (a) Positive                      (b) Negative  
(c) Neutral                        (d) None of the above
5. In a transistor, base is very \_\_\_\_\_
- (a) Thin  
(b) Thick  
(c) Both thin and thick  
(d) None of the above
6. A single diode operates as a \_\_\_\_\_
- (a) Half-wave rectifier  
(b) Full-wave rectifier  
(c) Both  
(d) None of the above

7. Transformer is \_\_\_\_\_ in a full-wave rectifier
- (a) Not essential
  - (b) Essential
  - (c) Partly essential
  - (d) None of the above
8. Zenor diode is used as a \_\_\_\_\_
- (a) Forward characteristic region
  - (b) Break down region
  - (c) Both region
  - (d) None of the above
9. The input resistance of VTVM is generally \_\_\_\_\_ ohms
- (a) 20M
  - (b) 10M
  - (c) 5M
  - (d) 3M
10. This symbol indicates



- (a) Capacitor
- (b) Diode
- (c) Resistor
- (d) None of the above

11. ICs are generally made of \_\_\_\_\_
- (a) Silicon and germanium
  - (b) Wood
  - (c) Steel
  - (d) All the above
12. The Electrons in the conduction band are known as \_\_\_\_\_
- (a) Valency Electron
  - (b) Free Electron
  - (c) No Electron
  - (d) None of the above
13. Ammeters is used to measure
- (a) Voltage
  - (b) Current
  - (c) Charge
  - (d) Energy
14. The Collector is \_\_\_\_\_ than emitter
- (a) Smaller
  - (b) Larger
  - (c) Both
  - (d) None of the above
15. Resistance Value for the resistor - Brown, Black and Brown
- (a) 100
  - (b) 110
  - (c) 150
  - (d) 250

16. A switch has \_\_\_\_\_ states
- (a) One                      (b) Two  
(c) Three                    (d) Four
17. A VTVM has \_\_\_\_\_ input resistance than that of multimeter
- (a) Higher                  (b) Lower  
(c) Equal                    (d) None of the above
18. Which of the following is one of the functions performed by Diode?
- (a) Filter                    (b) Amplifier  
(c) Rectifier                (d) Inverter
19. The outmost orbit of an atom can have a maximum of electrons
- (a) 8                          (b) 6  
(c) 4                          (d) 12
20. Resistor 2000 ohms = \_\_\_\_\_
- (a) 2 Kilo ohm              (b) 2 Mega ohm  
(c) 2 Gega ohm              (d) All the above

SECTION B — ( $5 \times 5 = 25$  marks)

Short Answer Questions

Answer any FIVE questions

21. Describe briefly the structure of atom.
22. What do you understand by a semi conductor and discuss some important properties of semi-conductors?
23. Define resistance and list out the resistor material.
24. What is light Emitting Diode?
25. Write the various types of transistor.
26. Define Switch.
27. Define Ohmmeter.
28. Define power supply.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

29. Write the type of Capacitor and explain it.
30. Explain the types of diodes.

31. Explain PNP and NPN transistor.
  32. Write about the instrument and equipment used for Measuring various electrical quantities.
  33. What is electronics? Mention some important application for electronics?
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**DIPLOMA EXAMINATION  
DECEMBER 2020**

Mobile Phone Servicing

**MOBILE PHONE AND ITS TECHNOLOGY**

Time : 3 hours

Maximum marks : 75

**PART A — (20 × 1 = 20 marks)**

Choose the correct answer :

1. SMS is abbreviated as \_\_\_\_\_.
  - (a) Short Message Service
  - (b) Stop Message Service
  - (c) Start Message Service
  - (d) None of the above
  
2. \_\_\_\_\_ is a mobile technology.
  - (a) ASM
  - (b) GSM
  - (c) QSM
  - (d) ISM



3. \_\_\_\_\_ and \_\_\_\_\_ technology  
sim cards available in reliance network.
- (a) GSM & CDMA
  - (b) TDMA & ASM
  - (c) FDMA & ISM
  - (d) None of the above
4. \_\_\_\_\_ type of battery is used in mobiles.
- (a) Li
  - (b) Cd
  - (c) Ni
  - (d) Mn
5. \_\_\_\_\_ soldering paste is essential for  
soldering process.
- (a) BGA
  - (b) VGA
  - (c) CGA
  - (d) None of the above
6. Light Emitting Diode is also known as
- (a) LED
  - (b) LCD
  - (c) LMD
  - (d) None of the above
7. 1000 Hz = \_\_\_\_\_.
- (a) 1 KHz
  - (b) 1 GHz
  - (c) 1 MHz
  - (d) None of the above

8. In Mobile phone \_\_\_\_\_ communication system is used to made contact with each other.
- (a) Blue tooth            (b) Wire  
(c) CDMA                (d) GSM
9. WAP abbreviated as
- (a) Wire Auto Process  
(b) Well Automatic Press  
(c) Wireless Application Protocol  
(d) Wireless Auto Press
10. The Battery Voltage of a mobile phone is
- (a) 4.5 V                (b) 3.6 V  
(c) 4.2 V                (d) 5 V
11. Spliting the Network in a Mobile Area is
- (a) cell                (b) hell  
(c) heal                (d) all the above
12. Mostly used component in mobile is
- (a) Diode                (b) Transistor  
(c) IC                (d) TRIAC
13. \_\_\_\_\_ is used for indoor communication.
- (a) GSM                (b) CDMA  
(c) IR                (d) letter

14. Enhanced Data rates for global evolution is known as \_\_\_\_\_.
- (a) EDRFGE                      (b) EDFGE  
(c) EDGE                         (d) None of the above
15. Wireless Fidelity stands for \_\_\_\_\_.
- (a) Wi – Fi                      (b) WF  
(c) WWF                         (d) None of the above
16. The coverage area under any wireless network apart from the home network (area) is
- (a) Roaming                      (b) No network  
(c) Local network                (d) None of the above
17. In mobile a small card reader/writer used to put
- (a) sim card                      (b) digital card  
(c) media card                    (d) none of the above
18. CDMA is abbreviated as
- (a) Code Division Multiple Access  
(b) Code Divide Multi Access  
(c) Coded Draw Margin Accept  
(d) None of the above

19. 3G Mobiles has \_\_\_\_\_ bands.
- (a) 4                              (b) 2  
(c) 3                              (d) 1
20. \_\_\_\_\_ is the third generation network.
- (a) 3G                              (b) 2G  
(c) Both (a) and (b)      (d) None of the above

PART B — (5 × 5 = 25 marks)

Answer any FIVE questions.

21. Define roaming.
22. Define bluetooth.
23. What is meant by GPRS?
24. Write a short note on WAP.
25. Define the term CDMA.
26. What is meant by MTSO?
27. Discuss the various types of batteries.
28. What is meant by GSM?

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

29. Explain the mobile hand set unit in detail.
  30. Compare the GSM and CDMA communication system.
  31. Discuss the detailed history of wireless communication.
  32. Explain the cellular mobile telephone services.
  33. Describe the various frequency spectrum used in mobile communication.
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**DIPLOMA EXAMINATION —  
DECEMBER 2020**

**Mobile Phone Servicing**

**SERVICING OF MOBILE PHONES**

Time : 3 hours

Maximum marks : 75

**PART A — (20 × 1 = 20 marks)**

**Answer ALL questions.**

1. GPS is abbreviated as
  - (a) Global position system
  - (b) Guiding pointer system
  - (c) Global pointer service
  - (d) None of these
  
2. GPS required to receive the signals
  - (a) Antenna
  - (b) Pen drive
  - (c) Laptop
  - (d) All the above

3. The three layer bond contain two fiber sheets and
  - (a) 1 copper sheet
  - (b) copper sheet
  - (c) 3 copper sheet
  - (d) no copper sheets
4. Draw the symbol of loud speaker.
5. Draw the symbol of chassis earth.
6. Power amplifier needs to distributes current among all components
  - (a) regulator
  - (b) power IC
  - (c) signal amplifier
  - (d) all the above
7. PCB is abbreviated as
  - (a) printed circuit book
  - (b) pin current board
  - (c) printed circuit board
  - (d) none of these
8. Power button is used in mobile phones to
  - (a) turn ON and OFF
  - (b) to decrease volume
  - (c) to sent message
  - (d) none of these

9. Battery is also known as
- (a) Charge                      (b) Cell
- (c) Volt                          (d) All the above
10. Draw the symbol of a ammeter.
11. A component which is used to fixed the operating frequency.
- (a) Crystal oscillator
- (b) Ceramic
- (c) Transistor
- (d) Operational amplifier
12. The signal are received to the mobile phones through its
- (a) Transistor                  (b) Diode
- (c) Antenna                      (d) Voltmeter
13. Poorly formed joint is called
- (a) Dry joint                      (b) Perfect joint
- (c) Good joint                    (d) None of the above



14. An OR gate has inputs
- (a) 1                      (b) 2
- (c) 3                      (d) None of the above
15. A walkie-Talkie is an example for system
- (a) Simple
- (b) Half duplex
- (c) Full duplex
- (d) All the above
16. Which of the following term is not related with mobile phone?
- (a) PIN                      (b) SIM
- (c) PUK                      (d) RIM
17. Draw the symbol for AND gate.
18. ROM is a memory
- (a) Temporary              (b) Permanent
- (c) Erasable                (d) None of these

19. Memory contents are specified in terms of
- (a) Hertz
  - (b) Volts
  - (c) Bits
  - (d) Ampere
20. The term KB stands for
- (a) Kilo byte
  - (b) Kilo bit
  - (c) Kilo bundle
  - (d) All the above

PART B — ( $5 \times 5 = 25$  marks)

Answer any FIVE of the following.

- 21. Discuss the need for PUK code.
- 22. Mention the uses of mobile jammer.
- 23. Explain the working operation of a router.
- 24. What are the different types of mobile phone technology?
- 25. What is meant by jumpering.
- 26. What is the role of an IMEI number.
- 27. Discuss the different types of battery.
- 28. Discuss the concept for discharging the batteries.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE of the following.

29. Explain the working operation of GPS.
  30. Describe the mobile phone assembling procedure with a neat diagram.
  31. Explain the working principle of GSM technology.
  32. Explain the different types of mobile phone software?
  33. Explain any two problem solving techniques in mobile phones.
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