

JAMMU & KASHMIR BOARD OF TECHNICAL EDUCATION

MJ-22

Subject: Power Electronics

Branch: E&C / Med Eltx

M. Marks: 100

Roll No. 1604-22M4-17067

Semester: 4th

Scheme: New

Time: 03 Hours

Instructions:

1. Attempt any Five Questions.
 2. Figures to the right indicate marks

JAMMU & KASHMIR BOARD OF TECHNICAL EDUCATION

MJ-22

Subject: Microprocessors

Branch: E&C/Med Eltx

M. Marks: 100

Roll No. 17067

Semester: 4th

Scheme: New

Schedule: New
Times: 03 Hours

Instructions:

1. Attempt any Five Questions.
 2. Figures to the right indicate marks

M1-22

Subject: Electrical Machines

Branch: E&C / Med Eltx

M Marks: 100

Scheme: New
Time: 03 Hours

Instructions:

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- ✓ Q1. Draw the block diagram of AM Transmitter and explain the working of its each stage? 20
- ✓ Q2. With the help of block diagram explain the principle and working of Superheterodyne AM receiver. Draw the typical wave forms at the I/P and O/P of each block. S? 20
- Q3.(a) Describe the performance characteristics of a radio receiver? 10
(b) Draw and explain the Delayed AGC circuit? 10
- Q4.(a) What is Geo-stationary satellite? What is its need? 10
(b) Write a note on space wave propagation? 10
- Q5.(a) Describe the block diagram of FM receiver? 10
(b) Write short notes on splicing and lensing? 10
- Q6.(a) Draw the block diagram of satellite communication link and explain? 10
(b) Draw and explain the electromagnetic spectrum and explain its various ranges? 10
- ✓ Q7.(a) Write short notes on: 5+5=10
(i) polarization of electromagnetic waves
(ii) beam width
(b) Explain broad-side and end fire arrays? 10
- Q8.(a) Explain the principle of operation of Parabolic Dish. Why is parabola shape is used? What is its application? 10
(b) Describe the characteristics and applications of Yagi Antenna. 10
- Q9. Draw the block diagram of Optical communication link. 20
Explain the function of its each block. What are the limitations of fibre optics system.
- Q10(a) Discuss in detail sky wave propagation? 10
(b) Write short notes on: 5+5=10
(i) Multiple hop propagation (ii) Virtual height

JAMMU & KASHMIR BOARD OF TECHNICAL EDUCATION

MJ-22

Subject: Network Filters & Transmission Lines (NETL)

Branch: E&C

M. Marks: 100

Roll No 1604-22 M/s 17-67

Semester: 4th

Scheme: New

Time: 03 Hours

Instructions:

1. Attempt any Five Questions.
 2. Figures to the right indicate marks.