PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2017
(Fourth Semester)

Branch - **PHYSICS**

ELCTRONIC INSTRUMENTATION & COMMUNICATION SYSTEMS

Time : Three Hours Maximum : 75 Marks

SECTION-A (20 Marks)
Answer **AIJ** questions
ALL questions carry **EQUAL** marks (1 0 x 2 = 20)

1 What is a bridge circuit? Write its types.
2 Write the advantages and disadvantage of Kelvin bridge.
3 . What is ammeter and voltmeter?
4 Write about Iron vane Voltmeter.
5 What is pollution? Write its types.
6 Define PH value.
7 Write the equation for effective area and effective length of an antenna.
8 What is antenna? Write its types.
9 Write a note on geostationary satellite.
10 Name the components included in television signal.

SECTION - B (25 Marks!
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

11 a Write short note on DC null measurement.
OR
b With neat diagram, explain Anderson bridge.

12 a Explain briefly about Analog electronic AC voltmeter.
OR
b Discuss about AC amplifier.

13 a Discuss Bio-metric measurements in detail.
OR
b Write note on specific gravity monitoring.

14 a Discuss in detail about effective length and effective area of an antenna.
OR
b Explain the propagation in free space.

15 a Write note on
(i) Keplers law (ii) orbit (iii) Geostationary orbit.
OR
b Discuss about transponders in satellite communication.

SECTION - C (30 Marks)
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16 With heat diagram explain the operation of Anderson Bridge . Write its advantages and disadvantages.

17 Discuss briefly about
(i) Electro mechanical DC voltmeter (ii) Electro mechanical AC voltmeter

18 Explain the fibre optic transducer with diagram.

19 Discuss about Ionospheric propagation in detail.

20 With neat diagram explain colour TV transmitter and receiver in detail.

Z-Z-Z END