Student's Name:

Roll no.:   **Total marks- 30**

Q-1 Give the answer of following   [16]

1) What will be the the magnitude of 2k-3k.

2) What will be the unite vector of I + j?

3) If the two vectors are Co-llinear then Ө =_____ or _____.

4) If vector product of two vector are perpendicular to each other than Ө = _____ and A×B =____

5) What will be the internal impedance of an ideal voltage sources.

6) Give the names of various types of capacitors.

7) Which type of component PN Junction diode.

8) What will be the resultant resistances 20Ω and 100Ω are series connected.

9) Draw the symbols of zener diode.

10) Write an example of scalar & vector.

11) If $\vec{A}$=5i and $\vec{B}$=3j, than $\vec{AB}$=_____.

12) For a vector $\vec{AB}$, $\vec{AB}$ = $\vec{BA}$ right or wrong.

13) Write a unit of Capacitor and Inductor.

14) Mica capacitors are having capacitance range from _____PF.

15) Generally which type of inductor are use?

16) If three electrodes, anode, cathode and grid are given then it is called _____valve.

Q-2 Give the answer of following   [14]

17) Define Scalar and Vector.

18) Find the unit vector of A= 3i+6j-2k

19) What is called active component? Give one example.

20) What is called passive component? Give one example.

21) Write the important results of scalar product of two vectors. (Any two)

22) What is condition for differential calculus as maxima and minima?

23) Define D.C. source and A.C. source.