

**PHYSICS****ELECTROSTATICS**

21. (3)

At any point over the spherical Gaussian surface, net electric field is the vector sum of electric fields due to  $+q_1$ ,  $-q_1$  and  $q_2$ . Don't confuse with the electric flux which is zero (net) passing over the Gaussian surface as the net charge enclosing the surface is zero.

22. (2)

Electric potential at any point inside a hollow metallic sphere is constant. Therefore, if potential at surface is 10 V, potential at centre will also be 10 V.

23. (2)

24. (4)

Electric field lines never enter a metallic conductor ( $E = 0$ , inside a conductor) and they fall normally on the surface of a metallic conductor (because whole surface is at same potential and lines are perpendicular to equipotential surface).

25. (3)

26. (4)

27. (1)

28. (1)

29. (4)

30. (4)