| 403147                                                                                                           | Item Bank Name:- Switchgear & Protection (2015 course) |                             |                                  | e)                                  | T                              |
|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------|----------------------------------|-------------------------------------|--------------------------------|
| Item Text                                                                                                        |                                                        | Option Text 1               | Option Text 2                    | Option Text 3                       | Option Text 4                  |
| Fault diverters are basically                                                                                    |                                                        | Circuit breakers            | Fast switches                    | Fuses                               | Relays                         |
| Which of the following is an instantaneous relay?                                                                |                                                        | Induction type              | Shadded pole<br>type             | Thermocouple<br>type                | PMMC type                      |
| which of the following is not an instant-<br>neous relay?                                                        |                                                        | Polarized type              | Balance beam<br>type             | Hinged<br>armature type             | Induction disc<br>type         |
| Distance relay is the best example of                                                                            |                                                        | Unit protection scheme      | non unit<br>protection<br>scheme | independant<br>protection<br>scheme | backup<br>protection<br>scheme |
| The function of the auxiliary relay is a                                                                         |                                                        | To carry high fault current | To sense the inception of fault  | To provide<br>backup                | None of the above              |
| In order to preserve the information contained in a signal of frequency Wsignal, it must be sampled at frequency |                                                        | Wsignal                     | ≥ 2Wsignal                       | ≤ 2Wsignal                          | ≥ 3Wsignal                     |
| Which protection is used against Single phasing fault in three phase induction motor                             |                                                        | Earth fault relay           | Thermal<br>overlaod relay        | Single phase preventer              | 2 & 3                          |

| Thermal protection switch can protect against                                           | Short circuit               | Temperature                   | Overload                                      | Overvoltage                |
|-----------------------------------------------------------------------------------------|-----------------------------|-------------------------------|-----------------------------------------------|----------------------------|
| In three phase induction motor H. R. C. fuse provides the protection against            | Short circuit               | Short circuits<br>& Overloads | Reverse<br>currents                           | Open circuits              |
| Single phasing relays are used for the protection of                                    | Single phase<br>motors only | Two phase<br>motors only      | Two phase<br>motors<br>running in<br>parallel | Three phase<br>motors only |
| The phenomenon of given signal being lost in the process of digitization is known as    | Chopping                    | Sampling                      | Aliasing                                      | Modulation                 |
| For L.T. Induction Motors, overload protection used                                     | HRC Fuse                    | Thermal relay                 | Circuit breaker                               | All of these               |
| For L.T. Induction Motor, short circuit protection is provided by means of              | HRC Fuse                    | Thermal relay                 | Circuit breaker                               | All of these               |
| In DOL starter, control circuit carries current as compared to motor full load current. | Very small                  | Equal                         | Same                                          | None of these              |
| In DOL starter, control circuit consists of                                             | Start push button           | Stop push<br>button           | Control coil                                  | All of these               |

| Which protection is recommended for three phase induction motors               | Overfluxing protection  | Three stepped distance protection | Protection<br>against inrush<br>current | Single phasing protection |
|--------------------------------------------------------------------------------|-------------------------|-----------------------------------|-----------------------------------------|---------------------------|
| A short circuit in three phase induction motor is identified by                | No current flow         | Heavy current<br>flow             | Voltage drop                            | Voltage rise              |
| Which transducer is used in numerical relays?                                  | Current<br>transformer  | Voltage<br>transformer            | Both (1) & (2)                          | Temperature<br>transducer |
| Which of the following is internal fault in 3 phase induction motor            | Low frequency           | short circuit in supply cable     | melted fuse                             | Open circuits             |
| Overreaching of distance relay due to the decaying DC components is avoided by | Electromechanical relay | Solid state<br>relay              | Digital relay                           | None of the above         |