TYPICAL QUESTIONS

1. POINTS & CROSSINGS

- Q.1 What is the difference between loose heel switches & Fixed switches?
- Q.2 Draw sketch of acute crossing & label various parts.
- Q.3 Give brief description on following:
 - (a) Over Riding switch.
 - (b) Throw of Switch.
 - (c) Heel Divergence.
- Q.4 What are CMS crossings & how they are different from built up crossings?
- Q.5 Draw sketch of Diamond crossing with double slip.
- Q.6 What are scissor cross-overs? Explain with diagram.
- Q.7 Give important points for inspection of Points & Crossings.
- Q.8 What are the schedules of Inspections of points & Crossings by various P.Way officials.

2. TRACK MAINTENANCE

- Q.1 What is the necessity of track maintenance?
- Q.2 Write procedure of through packing.
- Q.3 Write note in systematic over hauling of track.
- Q.4 Make out chart of Annual Programming for regular track maintenance.
- Q.5 Write short notes on following:
 - (a) Picking up slacks.
 - (b) Lubrication of rail joint.
 - (c) Hogged joint.
 - (d) Blowing & pumping joint.
- Q.6 Describe in detail, the procedure of deep screening of ballast.
- Q.7 What special precautions are necessary for maintenance of track in track circuited lengths?

3. TRACK RENEWALS

- Q.1 What is the criteria of complete rail renewal?
- Q.2 What is the difference between Primary & Secondary rail renewals?
- Q.3 Describe in details, methods of carrying track renewals?
- Q.4 When the renewal of point & crossings become due?
- Q.5 What are the track laying standards' floating conditions?

4. LEVEL CROSSINGS

- Q.1 Give classification of Railway Level crossings.
- Q.2 Define following.
 - (a) Class-1 Roads
 - (b) Stop Board at un-manned level crossing.
- Q.3 Give list of equipments of level crossings.
- Q.4 How protection of level crossings in done in case of an accidents on the level crossing.

5. DUTIES OF PERMANT WAY OFFICIAL

- Q.1 Give list of duties of a Mate.
- Q.2 What are the duties of Permanent Way Inspector?
- Q.3 Describe in details the duties of Assistant Engineer?
- Q.4 Write briefly on duties of Keyman?
- Q.5 What equipments tools & plants which are necessary for a gang?

6. INSPECTION OF TRACK

- Q.1 Why track inspection is necessary?
- Q.2 What are various methods of track inspections?
- Q.3 Give frequency of various track inspection by PWI & AEN.
- Q.4 Describe briefly RDSO; Track Recording Car?
- Q.5 Write short notes on:
 - (a) Oscillograph Cars
 - (b) OMS Recording
- Q.6 What parameters of track are recorded by track recording cum research car.

7. MISCELLANEOUS TYPES OF QUESTIONS

- Q.1 (a) What is the heel of switch and what are different types of heel of switches?
 - (b) Explain the purpose of providing check rails in points & crossing.
- Q.2 (a) Describe schedule of inspection of point and crossing by various officials.
 - (b) Explain when a tongue rail may be classified as badly worn out of damaged.
- Q.3 (a) Explain the essential of good track maintenance.
 - (b) Explain brief systematic over hauling of track.
- Q.4 (a) Explain in detail Hogging of joints in railway tracks.
 - (b) What is meant by high joints and how they effect the running of track.
- Q.5 Explain in detail the criteria for Rail Renewal.
- Q.6 (a) What are the special precautions for Pts. & xing renewal?
 - (b) What are the track laying standard prescribed for track renewal.
- Q.7 (a) Give Classification of level crossing.
 - (b) Where are the level crossing indicators and stop Boards provided?
- Q.8 (a) What is inspected during push trolley inspection?
 - (b) What are various tools and equipments taken by P.Way gang at the site of work?
- Q.9 (a) Why is track inspection necessary?
 - (b) Describe briefly the purpose of 'Amsler Track Recording Car'.
- Q.10 (a) Describe in detail maintenance of track in track circuited length.
 - (b) What are the common type of insulated joints?
- Q.11. What are the duties of permanent way inspector? Explain briefly.

BIBLIOGRAPHY

- 1. Indian Railways Permanent Way Manual.
- 2. Chief Engineer Circulars Issued by N.Rly.
- 3. Technical diary issued by institute of P.Way Engineers.
- 4. Technical Bullition of IRICEN-Pune