Time : 3 Hours

Max. Marks : 70

SECTION – A

1. Answer **any seven** questions out of ten. **Each** question carries **two** marks. **(7×2=14)**

   a) What is Turing Test ?

   b) Define AI.

   c) What is knowledge representation ?

   d) What is structural knowledge ?

   e) What is linear regression in AI ?

   f) Define intelligent system.

   g) Give the meaning of intelligence cycle.

   h) What is business intelligence ?

   i) What is big data ?

   j) What is competitive intelligence ?

SECTION – B

Answer **any four** questions out of six. **Each** question carries **five** marks. **(4×5=20)**

2. What are the goals of Artificial Intelligence ?

3. How Artificial Intelligence in Robotics are beneficial ?

4. Differentiate between knowledge and skills with examples.

5. Explain types of Intelligence with examples.

6. How to avoid analysis pitfalls in AI ?

7. Highlight recent trends in Business Intelligence.

P.T.O.

SECTION – C

Answer **any two** questions out of four. **Each** question carries **twelve** marks. **(2×12=24)**

8. What are the AI domains ? Elaborate and explain.

9. How can knowledge creation be done using AI ? Elucidate.

10. Elucidate Benchmarking analysis.

11. Explain BI capabilities in Business Solution.

SECTION – D

12. Answer the following questions. **(1×12=12)**

ShopX is a mid-sized retail chain in Europe struggling with stockouts and inefficient shelf management. In 2024, they implemented SmartShelf, an AI-powered inventory and customer behavior tracking system. SmartShelf uses computer vision and machine learning to monitor shelf stock levels, analyze which products customers interact with and send restocking alerts to staff in real time.

The AI also collects and analyzes data on foot traffic patterns and customer preferences, enabling the store to optimize product placement and promotions.

Results after 6 months :

- Stockouts reduced by 40%
- Revenue increased by 18%
- Customer satisfaction scores improved by 22%
- However, there were concerns about customer privacy and the cost of AI system maintenance.

Questions :

a) Evaluate the benefits ShopX gained from using SmartShelf. Were these benefits more operational, customer-facing or both ?

b) If you were a competitor of ShopX, how might you respond to their AI implementation ?