

Engineer's

Bangladesh Bank [AD] Written Batch Final Model Test-02

পূর্ণমানঃ 200

সময়ঃ 2 ঘণ্টা।

Exam Start@ 10: 00 PM**Stop Writing! @ 12: 00 AM****Last Time of Submission: 12: 15 AM****1. Read the passage and answer the questions (i-vi)****[5*6=30]**

The Fourth Industrial Revolution (4IR) marks a paradigm shift in the way we perceive and engage with technology, redefining the landscape of industries and societies worldwide. Building upon the foundations of its predecessors, the 4IR is characterized by the convergence of digital, physical, and biological technologies, heralding a new era of innovation and transformation. At the heart of the 4IR lies the unprecedented advancement of artificial intelligence (AI) and machine learning.

The Internet of Things (IoT) plays a pivotal role in the 4IR by connecting physical devices and enabling seamless data exchange. From smart homes and wearable to industrial sensors, the IoT creates interconnected ecosystems that facilitate real-time monitoring and control. The integration of robotics with AI is reshaping industries and the workforce alike. Robots are no longer confined to repetitive tasks on factory floors; they are increasingly becoming integral to healthcare, logistics, and customer service. Collaborative robots, or cobots, work alongside human counterparts, augmenting capabilities and improving overall productivity. The evolution of robotics in the 4IR is not just about automation but also about creating new opportunities for human-robot collaboration.

Biotechnology and genomics are driving scientific breakthroughs in the 4IR, offering solutions to healthcare and agriculture. Advances in gene editing technologies, such as CRISPR-Cas9, are paving the way for personalized medicine tailored to an individual's genetic makeup. In agriculture, genomics is enhancing crop yield and resilience, contributing to sustainable and efficient food production.

Renewable energy and sustainability are central to the 4IR's vision for a greener future. Technologies like solar power, wind energy, and energy storage solutions are reducing dependence on fossil fuels. Smart grids and energy-efficient technologies are optimizing energy distribution and consumption, aligning with global efforts to combat climate change.

The Fourth Industrial Revolution is a transformative force, reshaping industries and societies through the integration of advanced technologies. While presenting unprecedented opportunities for innovation and efficiency, the 4IR also brings forth challenges such as job displacement, ethical considerations, and the need for comprehensive regulatory frameworks.

Questions:

- What do you understand by 'fossil fuels'?
- What is the relationship between climate change and fossil fuels?
- How is artificial intelligence (AI) contributing to the Fourth Industrial Revolution, and which sectors are particularly affected by its advancements?
- In which ways does the Internet of Things (IoT) play a pivotal role in the 4IR, and how does it impact manufacturing processes, healthcare delivery, and urban infrastructure?
- What are the challenges of 4IR? What is your suggestion to harness the full potential of the 4IR?
- Choose a suitable title for the above comprehension.

2. Solve the following problems (i-v)

[6*5=30]

- i. If $x^2 + 4x + 3 = 0$, then find the value of $\frac{x^3}{x^6 + 27x^3 + 27}$
- ii. A milkman purchases the milk at Tk. x per litre and sells it at Tk. $2x$ per litre still he mixes 2 litres water with every 6 litres of pure milk. What is the profit percentage?
- iii. A can do a piece of work in 10 days, B in 15 days. They work together for 5 days; the rest of the work is finished by C in two more days. If they get Tk. 3000 as wages for the whole work, what are the daily wages of A, B and C respectively (in Tk.)?
- iv. Three pipes A, B and C can fill a tank in 6 hours. After working at it together for 2 hours, C is closed and A and B can fill the remaining part in 7 hours. Find the number of hours taken by C alone to fill the tank.
- v. A boat running upstream takes 8 hours 48 minutes to cover a certain distance, while it takes 4 hours to cover the same distance running downstream. What is the ratio between the speed of the boat and speed of the water current respectively?

3. Answer the following questions (i-xv)

[2*15=30]

- i. What are the names of Bangladesh's Fiscal Policy Authority and Monetary Policy Authority?
- ii. Write down the full forms of BICM and CEPA.
- iii. Name any three countries that are recently invited to be the new members of BRICS.
- iv. What are the different types of Universal Pension Schemes (UPSs)?
- v. What is the name of the capital city as well as the parliament of Israel?
- vi. What is the targeted GDP growth rate for the FY 23-24? How much did the government allocate to ADP in the 2023-24 Budget?
- vii. Who got the Nobel Peace Prize in 2023? Why?
- viii. In which country was the 18th G20 Summit held? How many member countries boycotted the G20 summit?
- ix. In which year NATO was established? Mention the name of the last member state of NATO.
- x. What are the SLR and CRR for the Islamic scheduled commercial banks in Bangladesh?
- xi. What is the name of 'National Debit Card' of Bangladesh? When was it launched?
- xii. Write down the full forms of 'BACH' and 'BACPS'.
- xiii. What is the pen name of Kazi Nazrul Islam? Mention the name of Nazrul's first published poem.
- xiv. Who won the International Booker Prize-2023? Mention the name of the literary work for which he/she won the prize.
- xv. Which country will host the 2024 T20 World Cup?

4. Translation [English to Bangla]

[10]

Numerous indicators confirm Bangladesh progressing ahead of Pakistan—especially on the social and economic fronts. As Bangladesh looks to the future, its inspirational targeted level of development achievement would most likely be nations like Thailand, Malaysia and Indonesia, and there is still a lot more to do in order to reach the level of development achieved by those nations. Where Bangladesh stands now, it is most often compared to India by many prominent economic analysts, publications and forums. India is not only Bangladesh's closest neighbour and its largest trading partner but now has possibly become the most comparable nation to Bangladesh. Although, this comparison is not so straightforward and has certain complexities and nuances.

5. **Focus Writing in Bangla** [35]
পর্যটন খাতের উন্নয়ন ও বিকাশে মেগা প্রকল্পের ভূমিকা ও ভবিষ্যৎ সম্ভাবনা।
6. **Focus Writing in English** [35]
Recent and Future Challenges of RMG Sector and Their Solutions.
7. **Argumental Writing in English** [30]
Caretaker government is/isn't a mandatory prerequisite for a free, fair and participatory electoral process.

খাতার প্রথম পেইজ এ টপ বরাবর User ID অবশ্যই লিখতে হবে।

User ID: Your Short Name-Last Two Digit of Your Phone Number. **Example:** Sabbir-34

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- খাতার ছবি তুলে >> PDF করে >> নিচের E-mail এ যথাযথভাবে সাবমিট করুন।

file_ebc@gmail.com

খাতা সাবমিশন এর পূর্বে আপনার E-mail এর Subject অংশে ব্যাচ এবং এক্সাম নং সংক্ষেপে যেমনঃ [AD Written: Test-02] অবশ্যই লিখতে হবে। বিশেষ কোন সমস্যা থাকলে **অনধিক ২৪ ঘণ্টা**র মধ্যে পরীক্ষা দেয়া যাবে।

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