

Engineer's

**Bangladesh Bank [AD] Written Batch
Final Model Test-01**

**::: Analysis Report ::: Question & Topic Based Guidelines ::: Question's
Solution :::**

প্রশ্ন-০১

প্যাসেজ সলভিং-৩০

এই Type প্রশ্নে ভালো নম্বর পেতে করণীয়...

- Engineer's BCS Care এর প্যাসেজ সলভিং শিট, উত্তর কৌশল, ফর্মেট...ফলো করুন(১/২ বার রিডিং দিন।)

নমুনা উত্তর/Answer Hints/প্রশ্ন সংশ্লিষ্ট সম্পূরক কিছু তথ্য জেনে নিই।

(একই প্রশ্নের ভিন্ন ভিন্ন উত্তর/উপস্থাপনা হতে পারে। কিওয়ার্ড একই/কাছাকাছি থাকতে হবে।)

- Space junk, or space debris, is any piece of machinery or debris left by humans in space
- The benefits of the rapid growth in satellite launching are the wide spread role of it in many areas like telecommunications, remote sensing, space science and national security
- Current and future missions face an increasing risk of possible collisions is the main threat mentioned in the passage.
- The Space Sustainability Rating (SSR) will provide a new, innovative way of addressing the orbital challenge by encouraging responsible behaviour in space through increasing the transparency of organizations' debris mitigation efforts.
- The Key lesson from the text is the space junk is increasing day by day which also increases the collision risk. Necessary Steps such as Space Sustainability Rating is essential for addressing the orbital challenge.
- "Junk Free Sustainable Space for Sustainable Development" may be a suitable title of the concerned comprehension.

প্রশ্ন-০২

Solve the following problems (i-v)

গণিত-৩০

এই Type প্রশ্নে ভালো নম্বর পেতে করণীয়...

- ছোটখাটো সহজ ক্যালকুলেশনে মিস্টেক হয়।(বিশেষ করে এক্সাম হলে) এটা খেয়াল রাখবেন। (ক্রসচেক দিয়ে নিবেন)
- গণিত সমাধানে প্রথমে প্রশ্নে কি কি ভ্যালু দেয়া আছে? কি বের করতে বলেছে? ঐ টা বের করতে আর কি এক্সট্রা তথ্য লাগবে কি/না? প্রশ্ন পড়ে এটা আগে ফিক্সড করে তারপর সূত্র বা প্রসেসিং এ যাবেন।
- কোন ম্যাথ না পারলে স্কিপ করে দ্রুত পরের প্রশ্নে যাবেন। [যদিও BIBM সহজ ম্যাথ দিয়ে থাকে।]

- A man borrow Tk. 4000 at 15%, compound rate of interest. At the end of each year he pays back Tk. 1500. How much amount should be pay at the end of the third year to clear all his dues?

Amount after 1st year = Tk. $[4000(1+15/100)-1500]$ = Tk. $[(4000 \times 23/20)-1500]$ =
Tk. $(4600-1500)$ = Tk. 3100

Amount after 2nd year = Tk. $[3100(1+15/100)-1500]$ = Tk. $[(3100 \times 23/20)-1500]$ =
Tk. $(3565-1500)$ = Tk. 2065

Amount after 3rd year = Tk. $[2065(1+15/100)-1500]=$ Tk. $[(2065 \times 23/20)-1500]=$
 Tk. $(2374.75-1500)=$ **Tk. 874.75**

- ii. The profit percentage on three articles A, B and C is 10%, 20%, and 25% and the ratio of the cost price is 1 : 2 : 4. Also the ratio of number of articles sold of A, B and C is 2 : 5 : 2, Calculate the overall profit percentage.

Ratio of CP given as 1 : 2 : 4

Let cost of,

$$A = x$$

$$B = 2x$$

$$C = 4x$$

Ratio of Number of sell is given as 2 : 5 : 2

Let number of items sold be,

$$A = 2y$$

$$B = 5y$$

$$C = 2y$$

Total cost (A + B + C),

$$= (2xy + 10xy + 8xy)$$

$$= 20xy$$

Profit of A = 0.2xy

Profit of B = 2xy

Profit of C = 2xy

Total profit = 4.2xy

% Profit =

$$4.2xy \times 100 / 20xy = \mathbf{21\%}$$

- iii. A, B, C started a business with their investments in the ratio 1 : 3 : 5. After 4 months, A invested the same amount as before and B as well as C withdrew half of their investments. What is the ratio of their profits at the end of the year?

Let their initial investments be x, 3x and 5x respectively

Then, According to the Question,

=A:B:C

$$=(x \times 4 + 2x \times 8) : (3x \times 4 + 3x \times 2 \times 8) : (5x \times 4 + 5x \times 2 \times 8)$$

$$=20x:24x:40x = \mathbf{5:6:10}$$

- iv. If x is chosen at random from the set {1, 2, 3, 4} and y is to be chosen at random from the set {5, 6, 7}, what is the probability that xy will be even?

$$S = \{(1, 5), (1, 6), (1, 7), (2, 5), (2, 6), (2, 7), (3, 5), (3, 6), (3, 7), (4, 5), (4, 6), (4, 7)\}$$

Total element n(S) = 12

xy will be even when even x or y or both will be even.

Events of x, y being even is E.

$$E = \{(1, 6), (2, 5), (2, 6), (2, 7), (3, 6), (4, 5), (4, 6), (4, 7)\}$$

n(E) = 8

So, Probability

$$P = n(E) / n(S), P = 8 / 12, \mathbf{P = 2/3}$$

- v. A square and an equilateral triangle have equal perimeters. If the diagonal of the square is $12\sqrt{2}$ cm, then what is the area of the triangle?

In square ABCD, we assume that the adjacent sides of square be a.

By using Pythagorean Theorem

$$a^2 + b^2 = (12\sqrt{2})^2$$

$$a^2 + a^2 = 288$$

$$2a^2 = 288$$

$$a^2 = \frac{288}{2}$$

$$a = \sqrt{144}$$

$$a = 12 \text{ cm}$$

Therefore, side of the square is 12 cm.

Perimeter of the square ABCD say P is given by

$$P = 4 \times \text{side}$$

$$\text{Side} = 12 \text{ cm}$$

$$P = 4 \times 12$$

$$P = 48 \text{ cm}$$

Perimeter of the equilateral triangle PQR say P_1 is given by

$$P_1 = 3 \times \text{side}$$

$$P = P_1$$

$$P = 3 \times \text{side}$$

$$48 = 3 \times \text{side}$$

$$\text{side} = \frac{48}{3}$$

$$\text{side} = 16 \text{ cm}$$

The side of equilateral triangle PQR is equal to 16 cm.

Area of an equilateral triangle say A, having each side a cm is given by

$$A = \frac{\sqrt{3}}{4} a^2$$

Area of the given equilateral triangle having each equal side equal to 16 cm is given by

$$a = 16 \text{ cm}$$

$$A = \frac{\sqrt{3}}{4} (16)^2$$

$$A = \frac{\sqrt{3}}{4} \times 256$$

$$A = 64\sqrt{3} \text{ cm}^2$$

প্রশ্ন-৩৩

General Knowledge-৩৩

এই Type প্রশ্নে ভালো নম্বর পেতে করণীয়...

- Engineer's BCS Care এর জিকে শিট এর নির্দেশনা... ফলো করুন। বানানের দিকে খেয়াল রাখবেন।
- সম্ভব হলে পূর্ণ বাক্যে উত্তর লিখবেন (যদি ২/৩ নম্বর করে নম্বর ও সময় থাকে।) অথবা শুধু কিওয়ার্ড লিখবেন।

নমুনা উত্তর/Answer Hints/প্রশ্ন সংশ্লিষ্ট সম্পূরক কিছু তথ্য জেনে নিই।

(একই প্রশ্নের ভিন্ন ভিন্ন উত্তর/উপস্থাপনা হতে পারে।)

- i. Patenga and Anwara
- ii. NFIS= National Financial Inclusion Strategy, BFIU=Bangladesh Financial Intelligence Unit
- iii. Netherlands, 6
- iv. Rangamati, 1997
- v. 1949, to guarantee the freedom and security of its members through political and military means.
- vi. 15%, 2
- vii. 2011, Bank Asia
- viii. Bangladesh Bank, CDBL=Central Depository Bangladesh Limited
- ix. 1945, Washington DC
- x. NPSB=National Payment Switch Bangladesh, Bangladesh Electronic Funds Transfer Network
- xi. Dubai, USA
- xii. TRIPS: The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is an international legal agreement between all the member nations of the World Trade Organization (WTO). It establishes minimum standards for the regulation by national governments of different forms of intellectual property (IP) as applied to nationals of other WTO member nations.
 - a. SDR(Special Drawing Rights)= The SDR is an international reserve asset created by the IMF. A basket of currencies defines the SDR: the US dollar, Euro, Chinese Yuan, Japanese Yen, and the British Pound.
- xiii. SDG 17 Goals, LDC Exit at 2026
- xiv. No of Digital Banks-2, Nagad Digital Bank & Kori Digital Bank
- xv. Seshher Kabita, Gora, Jogajog, Chokher Bali (সাহিত্য জিকে আসলেও বাংলায় লিখবেন নাহ।)

প্রশ্ন-4

Translation(E2B)-5

এই Type প্রশ্নে ভালো নম্বর পেতে করণীয়...

- ✚ পরীক্ষায় পুরো প্যাসেজটা অল্প সময়ের মাঝে পড়ে টপিকটা বুঝার চেষ্টা করুন। তারপর ট্রান্সলেশন শুরু করুন।
- ✚ প্রথম বাক্য ও শেষ বাক্যে দ্বিগুণ সময়!! দিন। একটু ভেবে চিন্তে লিখুন। অনেকেরই-ই বাক্য সাজানোতে কমন প্রবলেম হয়েছে/হচ্ছে হবে!!!!
- ✚ ট্রান্সলেশন একবারে মেইন খাতায় ডিরেক্ট না লিখে একটা একটা বাক্য নিয়ে পেন্সিল দিয়ে রাফ করে নেয়া যেতে পারে। তারপর ফাইনালি মেইন খাতায় উঠানো যেতে পারে।
- ✚ ট্রান্সলেশন এ Appropriate Tense ব্যবহার করুন। শিক্ষকরা খাতা কাটার সময় টেন্স খোঁজেন!
- ✚ বাংলা অনুবাদের ক্ষেত্রে খেয়াল রাখবেন শব্দ চয়নটা যেন সুন্দর হয়। **Standard Word** বসিয়ে/রিপ্লেস করে করে ট্রান্সলেশন এর মান (Level/Layer of Translation) বাড়ানো যেতে পারে।

✚ প্যাসেজ বেশি কঠিন মনে হলে ভাবানুবাদ করুন। দুই একটা ওয়ার্ড এর অর্থ জানা না থাকলে বাক্য পড়ে অর্থ অনুধাবন/অর্থ উদ্ধার/করতে হবে। বানানের দিকে খেয়াল রাখিয়েন।

E to B & B to E করার সময় **Translation:/অনুবাদঃ**

জাস্ট এই অংশটুকু ভিন্ন কালিতে লিখা যেতে পারে।

Translation: ----- **অনুবাদঃ** -----

খাতায় প্যাসেজ আকারে লিখতে হয়। ভুলেও মেইন খাতায় ভেঙ্গে ভেঙ্গে অনুবাদ লিখবেন না। একটানা প্যারাগ্রাফ এর মত লিখবেন। মাঝখানে নো প্যারা, নো স্পেস।

পরীক্ষায় আসা ট্রান্সলেশনটির সমাধান [বি দ্রঃ একই বাক্যের একাধিক/ভিন্ন রকম ট্রান্সলেশন হতে পারে]

Identifying the pitfalls of the social protection system and realising the importance of improving it to meet certain objectives, Bangladesh adopted the National Social Security Strategy (NSSS) in 2015.

সামাজিক সুরক্ষা ব্যবস্থার ত্রুটিগুলি চিহ্নিত করে এবং নির্দিষ্ট লক্ষ্য পূরণের জন্য এটিকে উন্নত করার গুরুত্ব উপলব্ধি করে বাংলাদেশ ২০১৫ সালে জাতীয় সামাজিক নিরাপত্তা কৌশল (এনএসএসএস) গ্রহণ করে।

Thereafter, it was agreed that the recommendations of the NSSS will be implemented through medium-term five-year plans and annual economic plans, such as the national budget.

তারপরে, এনএসএসএসএস-এর সুপারিশগুলি মধ্যমেয়াদী পঞ্চবার্ষিক পরিকল্পনা এবং জাতীয় বাজেটের মতো বার্ষিক অর্থনৈতিক পরিকল্পনার মাধ্যমে বাস্তবায়ন করা হবে বলে একমত হয়েছিল।

Based on this, the analysis for the social protection budget should ideally be carried out in line with the NSSS.

এর ভিত্তিতে, সামাজিক সুরক্ষা বাজেটের বিশ্লেষণ আদর্শভাবে এনএসএসএসএস (NSSS) এর সাথে সামঞ্জস্যপূর্ণ করা উচিত।

The proposal to cover 50-60 percent of vulnerable citizens, increase social protection expenditure to three percent of GDP originate from equity perspective.

৫০-৬০ শতাংশ ঝুঁকিপূর্ণ নাগরিকদের অন্তর্ভুক্ত করার প্রস্তাব এবং সামাজিক সুরক্ষা ব্যয় জিডিপির তিন শতাংশে বাড়ানোর প্রস্তাবটি সমতার দৃষ্টিকোণ থেকে উদ্ভূত।

The government has allocated Tk 126,272 crore, around 7.4 percent more than last year's social protection allocation of Tk 113,576 crore.

সরকার ১২৬,২৭২ কোটি টাকা বরাদ্দ করেছে, যা গত বছরের ১১৩,৫৭৬ কোটি টাকার সামাজিক সুরক্ষা বরাদ্দের চেয়ে প্রায় ৭.৪ শতাংশ বেশি।

However, in terms of GDP, the allocation in FY2023-24 is 2.52 percent – which falls short of the NSSS target of three percent of GDP which indicates that the social protection system is not keeping pace with development.

যাইহোক, জিডিপির পরিপ্রেক্ষিতে, ২০২৩-২৪ অর্থবছরে বরাদ্দ ২.৫২ শতাংশ-যা এনএসএসএসএস লক্ষ্যমাত্রা জিডিপির তিন শতাংশের থেকে কম যা এটা নির্দেশ করে সামাজিক সুরক্ষা ব্যবস্থা উন্নয়নের সাথে তাল মিলিয়ে চলছে না।

প্রশ্ন-5

Focus Writing

35+35=70

এই Type প্রশ্নে ভালো নম্বর পেতে করনীয়...

Engineer's BCS Care এর ৩২* ফোকাস শিট, কোটেশন শিট, ইনফরমেটিভ রাইটিং শিট... ফলো করুন।

প্রশ্ন-7

Argument

30

এই Type প্রশ্নে ভালো নম্বর পেতে করনীয়...

❖ Engineer's BCS Care এর Argument রাইটিং শিট, আরগুমেন্ট ফর্মেট... ফলো করুন। (১/২ বার রিডিং দিন।)

'No Exam Policy' Based New School Curriculum: A great opportunity or a looming disaster

টপিকটি বহুল আলোচিত সমালোচিত ও গুরুত্বপূর্ণ। আসেন সম্পূরক কিছু তথ্য জেনে নিন।

[EBC'র ফর্মেট ফলো করবেন।]

The 'No Exam Policy' in the new school curriculum has sparked quite a debate, hasn't it? On one hand, it's being hailed as a great opportunity to foster a more holistic approach to education, while on the other, critics argue that it might be a looming disaster waiting to happen.

Proponents of the 'No Exam Policy' argue that it allows students to focus on a broader range of skills beyond rote memorization. This shift towards continuous assessment, projects, and practical application of knowledge aims to better prepare students for real-world challenges. After all, life doesn't come with multiple-choice questions, does it? This change in approach emphasizes critical thinking, problem-solving, and creativity—skills that are often overlooked in the traditional examination system.

However, skeptics fear that the absence of exams might lead to a lack of academic rigor and discipline among students. Exams, they argue, serve as a crucial benchmark, a standardized measure of a student's understanding and proficiency in a subject. Without this, there's a concern that the educational system might produce graduates who lack the depth of knowledge and the ability to handle high-pressure situations, skills that are essential in many professional fields.

Furthermore, critics worry about the potential for grade inflation. With a continuous assessment model, there might be a temptation to be lenient in evaluating students, leading to inflated grades that do not accurately reflect their true capabilities. This could have serious consequences when these students enter the job market or pursue higher education, where a more accurate assessment of their abilities is essential.

In conclusion, while the 'No Exam Policy' in the new school curriculum offers an exciting prospect of a more well-rounded education, it also poses the risk of diluting academic standards. Striking the right balance between continuous assessment and maintaining the integrity of academic evaluation is crucial. The success of this policy depends on how effectively it can nurture critical thinking and practical skills without compromising the core principles of education. The debate rages on, but one thing is for sure—the future of education is undergoing a significant transformation.

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সংযুক্তিঃ (অতিরিক্ত একটা রিডিং দিতে পারেন।)

New Curriculum of Education: Skill based curriculum adopted for 'Smart Bangladesh'

Bangladesh has formally adopted a new skill-based curriculum for secondary and higher secondary levels beginning with the academic year 2023, marking a significant step towards revolutionising the educational system and preparing students for the challenges of the 21st century. This brave move by honourable Prime Minister Sheikh Hasina represents a substantial departure from the conventional rote learning approach and aims to encourage students' creativity, critical thinking, and practical skills and prepare our future workforce to fully benefit from the 4th Industrial Revolution (4IR) to build up smart Bangladesh. **Some people spreading propaganda over new curriculum: Dipu Moni**

The four pillars of smart (Sustainable, Modern, Aspirational, Resilient, and Technology-driven) Bangladesh are smart citizen, smart society, smart economy, and smart governance. The advanced machine learning and Artificial Intelligence (AI) are revolutionizing the job market. There is a clear mismatch between the educational curriculum and the demand of the job market. The knowledge and skills we are learning at institutions can be irrelevant to future demands. Therefore, curriculum of the present age should be flexible and adaptive. It is also evident that there is a shift from knowledge-based education to skill-based education. Keeping this in mind, an up-to-date education curriculum for secondary and higher secondary levels has recently been introduced by the government of Bangladesh to build up a smart Bangladesh. The new curriculum is being implemented in several phases. The revised curriculum has been adopted for classes 1 and 2, as well as classes 6 and 7, in the first phase, which started in 2023. The second phase, which will start in 2024, will see the introduction of the new curriculum for classes 3 and 4, as well as classes 8 and 9. By 2027, the new curriculum will have been fully adopted at both secondary and higher secondary levels. Some of the essential features of this new curriculum are:

Through practical activities, learning by doing is an effective pedagogical strategy that enables students to acquire skills and experience. This strategy promotes critical thinking, and active engagement, making it the perfect way to get learners ready for the challenging demands of the future global economy. With this method, students learn how to learn while having fun and develop a natural curiosity for learning new things. Learners work on real-world projects, experiments, and simulations rather than just memorising knowledge.

Rote memorization will become less important in the new curriculum as it moves its emphasis to Problem-based Learning (PBL), which fosters critical thinking and creativity.

The curriculum includes the most recent developments in a number of fields. To promote digital literacy, learners will be introduced to coding, AI, data analytics, digital security and other relevant technologies.

Through the inclusion of extracurricular activities, sports, and the arts, the curriculum attempts to develop well-rounded individuals. There is a 'no exam policy' for up to class three in primary school and class six and seven in the secondary level. Any sort of public examination before Secondary School Certificate has been cancelled. The 'no-exam policy' aims to lessen the tension and worry that many young learners feel in the pressure of tests.

Bangladesh hopes to develop a tech-savvy young generation who can actively participate in the digital economy by including ICT-related subjects in the curriculum

STEAM (Science, Technology, Engineering, Arts, and Mathematics) education is a multidisciplinary approach to learning that integrates various subjects and promotes learners' critical thinking, creativity, problem-solving abilities, and adaptability.

The success of Bangladesh's skill-based curriculum can be aided by STEAM education because both fields share similar goals and ideals. Finally, the new curriculum, according to the government, will aid in preparing learners for the demands of the global economy of the 21st century. The creation of an Innovative Education Ecosystem (IEE) that supports lifelong learning, fosters innovation, and equips the youth to become prepared for technologically advanced Bangladesh is imperative as the government continues to implement the new education curriculum. With a collective effort, Bangladesh is on the path to building a strong economy, enhancing digital literacy, and securing a brighter future for smart Bangladesh. Implementing 'blended teaching' method would be a game changer to promote the targets of this new educational curriculum.