S@ifur's

BBA

Admission Guide

Saifur Rahman Khan

B.Sc. Engg. (EEE, BUET); MBA, IUJ, Japan. Ex-lecturer, IBA, University of Dhaka. Ex-faculty member, BIBM.

Md. Mujibur Rahman

Head of R & D Section E-mail: saifurs.rnd@gmail.com

Md. Haseeb Kabir

MA (English), MA (ELT) BRAC Univ. Content Developer & Writer

&

Md. Maniruzzaman Manir

Research Associate & Writer

BBA Admission Test 1997-98

30 Questions

Section I: Mathematics

30 marks

Direction: Solve each of the following problems and mark the correct answer on your answer sheet. DO NOT USE CALCULATIOR. Figures are not drawn to scale.

The mid-point of a line joining (-3, 5) to (-3, -1) is:

$$(B) -3, 1$$

$$(D) -3, 2$$

$$(E) 1, -4$$

সমাধান দুটো বিন্দু যাদের co-ordinates হলো $(x_1, y_1) \not \bowtie_2, y_2)$ তাদের মধ্যবিন্দু হলোঃ

$$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right) = \frac{-3 + (-3)}{2}, \frac{5 + (-1)}{2} = (-3, 2)$$
 ∴ Answer $\stackrel{\text{Ref}}{=}$ (D)

A cake weighing 750 g has three ingredients: flour, sugar, and fruits. There is twice as much flour as sugar and one and a half times as much sugar as fruits. What is the quantity of sugar (in gram) in the cake?

(B)
$$250g$$

(E) none of these

মনে করি, quantity of sugar = s gms; : quantity of flour (ফ্লাওয়ার্-ময়দা) = 2s gms

আর, সুগারের পরিমাণ = $\frac{3}{2}$ × (quantity of fruits) \Rightarrow quantity of fruits = $\frac{2s}{2}$

$$\therefore s + 2s + \frac{2s}{3} = 750 \implies 3s + 6s + 2s = 2250 \implies 11s = 2250$$

$$\Rightarrow s = \frac{2250}{11} = 204.5 \text{m}$$

∴ Answer হল (E)।

Which of following information is alone sufficient to find out the value $4x^2$ + 3. $12xy + 9y^2?$

(A)
$$x = 4$$

(B)
$$v = 9$$

(C)
$$2x = 3v$$

(B)
$$y = 9$$
 (C) $2x = 3y$ (D) $2x + 3y = 2$ (E) none of these

সমাধান $4x^2 + 12xy + 9y^2 = (2x)^2 + 2.2x.3y + (3y)^2 = (2x + 3y)^2$ । এখন, D-থেকে (2x + 3y) = 2 বসালে

∴ Answer হল (D)।

- 4. Karim bought a ticket to a cricket match for Tk.25 and later sold the ticket to Rahim for Tk.75. What was the percent increase in the price of the ticket?
 - (A) 400%
- (B) 300%
- (C) 200%
- (D) 100%
- (E) 50%

সমাধান Percent increase = $\frac{\text{increase}}{\text{original}} = \frac{75}{25} = \frac{50}{25} \times 100 = 200 \%$

- ∴ Answer হল (c)।
- 5. In the expression of $(x y)^3$, the coefficient of y^2 is:
 - (A) 1
- (B) 3
- (C) 3a
- (D) $-3a^2$
- (E) none of these

সমাধান $(x-y)^3 = x^3 - 3x^2y + 3xy^2 - y^3$; y^2 -এর coefficient হলো 3x. ∴ Answer হল (E) ।

- 6. In a concert, 100 tickets were sold in two unequal lots at two different rates. First lot was sold at Tk.5 per ticket and the second lot was sold at Tk.3.50 per ticket. If the total sales proceeds was Tk. 410, how many people got the cheaper tickets?
 - (A) 30
- (B) 40
- (C) 50
- (D) 60
- (E) 75

সমাধান মনে করি, cheaper tickets পোলো x জন; $\therefore 5(100-x) + 3.5x = 410$ $\Rightarrow 500 - 5x + 3.5x = 410 \Rightarrow 1.5x = 90 \Rightarrow x = 60$ \therefore Answer হল **(D)**।

- 7. Find the value of K if (x + 1) is a factor of $x^3 + Kx + 3x^2 2$
 - (A) 3.5
- (B) 4
- (C) 4.5
- (D)5
- (E) none of these

সমাধান $\{x^3 + kx + 3x^2 - 2\}$ -কে ভেঙে factor আকারে লেখতে হবে, (x+1) factor হওয়াতে (x+1)-এর সাথে প্রথমে এমন একটা সংখ্যা গুণ করতে হবে যাতে গুণফল থেকে x^3 পাওয়া যায়।

 \therefore \bigcirc দিয়ে গুণ দিলে হয় $x^2(x+1)=x^3+x^2$. শু x^2 পেতে হলে (x+1)-এর সাথে গুণ দিতে হবে 2x, কেননা তখন হয় $2x(x+1)=2x^2+2x$ । $\bigcirc x^2+2x$ আগের (x^3+x^2) -এর সাথে যোগ হয়ে দাঁড়ায়, x^3+3x^2+2x ।

এভাবে আগালে পাওয়া যায়ঃ $x^3 + 3x^2 + kx - 2 = x^3 + x^2 + 2x^2 + 2x - 2x - 2$ = $x^2(x+1) + 2x(x+1) - 2(x+1)$, অর্থাৎ k-এর value 0,

∴ Answer হল (E)।

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Four children aged 11, 9, 7, and 4 share a sum of money in the ratio of ages. If 8. the youngest child receives Tk. 1,200, what is the sum of money?

(A) 9,600

(B) 9,300

(C) 9,000

(D) 8,600

(E) 8,400

সমাধান

যার যত বয়স সে তত ভাগ পাবে।

∴ মোট কত ভাগ হবে, তা প্রথমে বের করতে হবে = 11 + 9 + 7 + 4 = 31;

মনে করি, total = $x : \frac{x}{31} \times 4 = 1200 \implies x = 300 \times 31 = 9300$

- ∴ Answer হল (B)।
- 9. A company employs 15 men working 44 hours a week. If 4 men are ill, how many hours a week would the rest have to work to make up the time lost?

(A) 60

(B) 55

(C) 50

(D) 48

(E) 45

সমাধান | 15 জনে মোট কাজ করে = $15 \times 44 = 660$ hours;

- ∴ (15-4)=11 জনকে কাজ করতে হবে $=\frac{660}{11}=60$ hours.
- ∴ Answer হল (A)।
- 10. Three workers can do a job in 12 days. Two of the workers work twice as fast as the third. How long would it take one of the faster workers to do the job himself? (A) 24(B) 30 (C) 32(D) 36(E) none of these

সমাধান

মনে করি. faster worker-দ্বয়ের প্রত্যেকে কাজটি করতে পারে x দিনে;

 \therefore third worker কাজটা করতে পারে 2x দিনে;

∴তিন জন একত্রে প্রতিদিন করে $\frac{1}{x} + \frac{1}{x} + \frac{1}{2x} + \frac{5}{2x}$ অংশ

 $\therefore \frac{.5}{2}$ অংশ করে 1 দিনে ; 1 অংশ করে $\frac{2x}{5}$ দিনে $\therefore \frac{2x}{5} = 12 \Rightarrow x = 30$

- ∴ Answer হল (B)।
- 11. If a typist can type 125 pages, 36 lines each, 11 words to each line in 5 days, how many pages of 30 lines each and 12 works to each line can he type in 6 days?

(A) 145

(B) 155

(C) 160

(D) 165

(E) none of these

সমাধান 5 দিনে করে প্রতি লাইনে 11 word, প্রতি page-এ 36 line বিশিষ্ট 15 pages

12. A man travels a distance at a rate of 20 miles/hour & returns at the rate of 30 miles/hour. What is his average speed?

(A) 24

(B) 25.5

(D) 26

(E) none of these

সমাধান মনে করি, সে x miles গেল। ∴ total time = $\frac{x}{20} + \frac{x}{30} = \frac{5x}{60} = \frac{x}{12}$; total distance = 2x

 $\therefore \text{ Av. speed} = \frac{2x}{x} = 24.$

∴ Answer হল (A)।

13. During a cricket match, Akram scored a century in just 40 deliveries. The number of boundaries he hit was twice that of over-boundaries. He couldn't score from 6 deliveries and he could take singles from rest of the deliveries. How many boundaries did he score?

(A) 10

(B) 12

(C) 14

(D) 16

(E) none of these

সমাধান মনে করি, boundaries-এর সংখ্যা = x ... over boundaries-এর সংখ্যা = $\frac{x}{2}$

$$\therefore 4x + \frac{6x}{2} + \left(40 - 6 - x - \frac{x}{2}\right) \times 1 = 100 \Rightarrow 7x + 34 - \frac{3x}{2} = 100$$
$$\Rightarrow \frac{11x}{2} = 66 \therefore x = 12 \therefore \text{Answer } \mathbb{R} \setminus \mathbb{R} \setminus \mathbb{R}$$

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- 14. The price of sugar in the year 1995 increased by 10% from that of the previous year. In 1996 the price decreased by 5%. In 1996, what was the increase in price with respect to that of 1994?
 - (A) 4%
- (B) 4.5%
- (C) 5%
- (D) 5.5%
- (E) none of these

মনে করি, 1994-এ price = 100; 1995-এ price = 110;

- \therefore 1996-a price = 110 5% of 110 = 110 5.5 = 104.5;
- \therefore increase = 104.5 100 = 4.5
- ∴ percentage increase = $\frac{\text{increase}}{\text{original}} = \frac{4.5}{100} \times 100\% = 4.5\%$ ∴ Answer रहा (B) ।
- 15. Due to booming business, a company increased its staff salary by 25%. By what percent must it now decrease the salary to return to the original amount?
 - (A) 15
- (B) 18
- (C) 20
- (D) 22.5
- (E) none of these

সমাধান মনে করি, original salary = 100 টাকা; : বৃদ্ধির পর salary = 125 টাকা;

- \therefore original পরিমাণে নিয়ে আসতে হলে (125-100)=25 টাকা কমাতে হবে।
- ∴ percentage decrease = $\frac{\text{change}}{\text{original}} = \frac{25}{125} \times 100 \% = 20\%$ ∴ Answer হল (C) ।
- 16. A man buys some pen & pencil. The pen costs Tk. 7 each & the pencil costs Tk. 3 each. If he spends exactly Tk. 81 and buys the maximum number of pen possible under these conditions, find the ratio of pen to pencil.
 - (A) 5:3
- (B) 4:3
- (C) 5:2
- (D) 3:2
- (E) none of these

সমাধান লোকটা maximum $\frac{81}{7}=11$ -টা pen কিনতে পারে। কিন্তু, তখন বাকী থাকে 81-7 imes11= 4 টাকা, যেটা দিয়ে একটা pencil কেনার পরও কিছু টাকা বাকী থেকে যায়। অথচ

exactly 81 টাকাই খরচ করা হয়েছে। :: correct উত্তর হবে সেই সংখ্যক pen, যেগুলোর মূল্য 81 থেকে বাদ দেওয়ার পর অবশিষ্টটা 3 দিয়ে বিভাজ্য হয়। একটু চিন্তা করলেই দেখা যায়, 9-টা pen-এর দাম $7 \times 9 = 63$ -কে 81

থেকে বাদ দিলে থাকে 81 - 63 = 18, যেটা 3 দিয়ে বিভাজ্য $\frac{18}{3} = 6$ -টা pencil;

:. pen : pencil = 9 : 6 = 3 : 2

∴ Answer হল (D)।

- 17. A certain triangle has sides that are respectively 6, 8, and 10 inches long. A rectangle equal in area to that of the triangle has a width of 3 inches. What is the perimeter of the rectangle?
 - (A) 11
- (B) 16
- (C) 22
- (D) 24
- (E) none of these

সমাধান 6 : 8 : 10 = 3 : 4 : 5 হওয়াতে triangle-টা একটা right (সমকোণী) triangle.

$$\therefore$$
 area = $\frac{1}{2} \times 6 \times 8 = 24$. \therefore length of rectangle = $\frac{24}{3} = 8$.

 \therefore perimeter of rectangle = 2(8 + 3) = 22

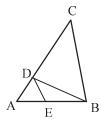
- ∴ Answer হল (C)।
- 18. A certain pole casts a shadow 24 ft. long. At the same time another pole which is 3 feet high casts a shadow 4 feet long. How high is the first pole, given that the heights and shadows are in proportion?
 - (A) 18
- (B) 19
- (C) 20
- (D) 21
- (E) none of these

সমাধান মনে করি, first pole-এর height = x ft. $\therefore \frac{x}{24} = \frac{3}{4} \implies x = 18$

- ∴ Answer হল (A)।
- 19. Two train running on the same route travel at the rate of 25 and 30 miles per hour. If the first train starts out an hour earlier, how long will it take the second train to catch up with it?
 - (A) 2 hrs
- (B) 3 hrs
- (C) 4 hrs
- (D) 5 hrs
- (E) none of these

সমাধান মনে করি, প্রথম train-টা নাগাল পেতে 2^{nd} train-এর x ঘন্টা লাগবে। $\therefore 25(x+1) = 30x \implies x = 5 \text{ hours}$; \therefore Answer হল **(D)**।

20. Triangle ADE is an equilateral triangle. If DC = AB + BE, and AC = 3 inches, what is the value of AB?



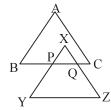
- (A) 1
- (B) 1.5
- (C)2
- (D) 2.5
- (E) none of these

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সমাধান
$$DC = AB + BE \Rightarrow AB = DC - BE = (AC - AD) - (AB - AE) = AC - AD - AB + AE$$

$$\Rightarrow$$
 AB = 3 − AB (: AD = AE) \Rightarrow 2AB = 3; : AB = $\frac{3}{2}$: Answer ₹ (B)

- 21. In the figure below, triangle ABC & XYZ are equilateral triangles. YZ is parallel to BC, BC = 4, QC = 1 & BP = 2 unit. The perimeter of the triangle XPQ is:
 - (A)5
- (B) 4 (C)3
- (D) 2
- (E) none of these



সমাধান
$$PQ = BC - BP - QC = 4 - 2 - 1 = 4$$
; $\angle YXZ = 60^\circ$; $BC \parallel YZ$ হওয়াতে $\angle XPQ = \angle PYZ = 60^\circ$ এবং $\angle XCP = \angle XZY = 60^\circ$ [\because কোণগুলি অনুরূপ কোণ] $\therefore \Delta XPQ$ একটি সমবাহু ত্রিভুজ।

∴
$$\Delta XPQ$$
-এর perimeter = $PQ + QX + XP = 1 + 1 + 1 = 3$ ∴ Answer হল (C) ।

- 22. In the figure, BD = 2DC and AD = DB. What is the value of AB?
 - (A) $\sqrt{(BD^2 + DC^2)}$
- (B) $\sqrt{3}$ BD
- (C) 3 BC + DC

(D) 2BC

(E) none of these



সমাধান
$$BD = 2DC$$
 হওয়াতে $\triangle BCD$ একটি $30^{\circ}-60^{\circ}-90^{\circ}$ ত্রিভুজ, যার $\angle CBD = 30^{\circ}$; $\angle BDC = 60^{\circ}$ ও $BC = \sqrt{3} DC$ \dot{p} . $\angle BDA = 180^{\circ}-60^{\circ}=120^{\circ}$;

∴∠DBA = ∠DAB =
$$\frac{180^{\circ} - 120^{\circ}}{2}$$
 = 30°;

$$\therefore$$
 \angle CBA = \angle CBD + \angle DBA = 30° + 30° = 60° \dot{p}

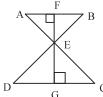
$$\therefore$$
 ACB হলো একটা $30^{\circ} - 60^{\circ} - 90^{\circ}$ গ্রিভুজ। এখন, $AB^2 = BC^2 + AC^2 = BC^2 + (CD + AD)^2 = BC^2 + CD^2 + AD^2 + 2.CD$. AD $= BD^2 + BD^2 + BD$. BD = $3.BD^2$ \therefore AB = $\sqrt{3}$ BD \therefore Answer হল **(B)**।

- 23. In the figure CD = 2AB and AB is parallel to CD. If the area of ABE is 3, what is the area of CED?

 A \longrightarrow B
 - (A) 2
- (B) 6
- (C) 9

- (D) 12
- (E) none of these

সমাধান ছবিটা আঁকা যাক , যেখানে GF হলো AB এবং CD -এর উপর লম্ব;



- এখন, $\Delta ext{AEF}$ ও $\Delta ext{EGC}$ -এর মধ্যে $\angle ext{AFE} = \angle ext{EGC} = 90^\circ$; $\angle ext{FAE} = \angle ext{GCE} =$ একান্তর
- ∴ ত্রিভুজদ্বয় সদৃশ। ∴ $\frac{EG}{EF} = \frac{EC}{EF} = \frac{EC}{EA}$ (i);

একইভাবে দেখানো যাবে, ΔABE ও ΔECD সদৃশ।

- $\therefore \frac{\mathrm{CD}}{\mathrm{AB}} = \frac{\mathrm{EC}}{\mathrm{EA}}$ (ii); আবার , দেয়া আছে , $\frac{\mathrm{CD}}{\mathrm{AB}} = 2$(iii)
- \therefore (i), (ii) ও (iii) থেকে, $\frac{EG}{EF}$ 2 $\Rightarrow \frac{EG}{2}$ = EF;

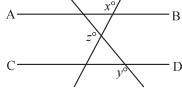
আবার, সহজেই বোঝা যায়, Δ AEB-এ EF হলো EC থেকে ভূমি AB-এর উপর আঁকা উচ্চতা এবং তদ্রুপ, EG হলো ΔDCE -এ ভূমি DC-এর উপর উচ্চতা।

এখন, দেয়া আছে, $\frac{1}{2} \times AB \times EF = 3 \Rightarrow EF \times AB = 6$

এখন, \triangle CED-এর area = $\frac{1}{2} \times EG \times CD = \frac{EG}{2} \times 2AB = 2 \times EF \times AB = 2 \times 6 = 12$ \therefore Answer হল (**D**) |

- 24. In the figure, AB is parallel to CD. $\angle x$ is 130° and $\angle y$ is 150°. What is the value of $\angle z$?
 - (A) 60
- (B) 90
- (C) 100

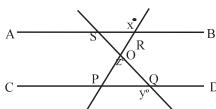
- (B) (D) 110
- (E) none of these



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সমাধান

ছবি এঁকে নিনঃ



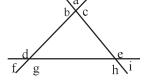
∠PQO = 180° – y° = 180° – 150° = 30°; ∠OPQ = ∠ORS [∵ একান্তর];

আবার, $\angle ORS = 180^{\circ} - x^{\circ} = 180^{\circ} - 130^{\circ} = 50^{\circ}$

এখন, $\angle z + \angle OQP + \angle ORS = 180^{\circ} \Rightarrow \angle z = 180^{\circ} - 30^{\circ} - 50^{\circ} = 100^{\circ}$

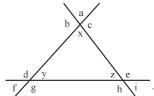
- ∴ Answer হল (C)।
- 25. In the figure, what is the sum of the nine angles labeled with letters?
 - (A) 720°
- (B) 840°
- (C) 900°

- (D) 990°
- (E) indeterminate



সমাধান

ছবি এঁকে নিনঃ



 $a + b + x + c = 360^{\circ}$; $d + f + g + y = 360^{\circ}$; $z + h + i + e = 360^{\circ}$

 $\therefore (a+b+c+d+e+f+g+h+i)+(x+y+z)=360^{\circ}\times 3=1080^{\circ}$

 $\therefore (a+b+c+d+e+f+g+h+i) = 1080^{\circ} - (x+y+z) = 1080^{\circ} - 180^{\circ} = 900^{\circ}$

- ∴ Answer হল (C)।
- 26. In figure, point A is the center of the larger circle. Find ratio of the area of the large to the area of the small circle?
 - (A) 4
- (B) 3.25
- (C) 3

- (D) 2.25
- (E) 5

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08 .	BBA Admission Test Question (2004 – 2005)-এর প্রশ্ন ও সমাধান
09 .	BBA Admission Test Question (2005 – 2006)-এর প্রশ্ন ও সমাধান
10 .	BBA Admission Test Question (2006 – 2007)-এর প্রশ্ন ও সমাধান
11.	BBA Admission Test Question (2007 – 2008)-এর প্রশ্ন ও সমাধান
12 .	BBA Admission Test Question (2008 – 2009)-এর প্রশ্ন ও সমাধান
13 .	BBA Admission Test Question (2009 – 2010)-এর প্রশ্ন ও সমাধান
14 .	BBA Admission Test Question (2010 – 2011)-এর প্রশ্ন ও সমাধান
15 .	BBA Admission Test Question (2011 – 2012)-এর প্রশ্ন ও সমাধান
16 .	BBA Admission Test Question (2012 – 2013)-এর প্রশ্ন ও সমাধান
17 .	BBA Admission Test Question (2013 – 2014)-এর প্রশ্ন ও সমাধান
18 .	BBA Admission Test Question (2014 – 2015)-এর প্রশ্ন ও সমাধান
19 .	BBA Admission Test Question (2015 – 2016)-এর প্রশ্ন ও সমাধান 553
20 .	BBA Admission Test Question (2016 – 2017)-এর প্রশ্ন
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21.	BBA Admission Test Question (2017 – 2018)-এর প্রশ্ন 621
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IBA-BBA-তে ভর্তি পরীক্ষা দেওয়ার যোগ্যতা

The minimum qualifying point is five for all applicants (কমপক্ষে 5 Points লাগবে). The point determination is laid out in the table below:

SSC GPA/Div	HSC GPA/Div	O-Level GPA*	A-Level GPA*	Qualifying Points
>= 4.5/1 st	>= 4.0/1st	>= 3.0	>= 2.5	3
>= 3.5/2 nd	>= 3.0/2nd	>= 2.5	>= 2.0	2

* Letter grades of O - Level and A - Level subjects are converted to grade points (A = 4, B = 3, C = 2, D = 1). Grade Point Average (GPA) is calculated by averaging the grade points of the five best grades for O-level and the two best grades for A-Level.

For all other certificates, equivalence will be determined by the Equivalence Committee of IBA.

IBA BBA পরীক্ষায় চান্স পেতে পড়ুন

S@ifur's » BBA Admission Guide

S@ifur's » Passport to Grammar

S@ifur's » 4G Newest গ্রামার

S@ifur's » One word Substitution

S@ifur's » Comprehension

S@ifur's » অনুবাদপিডিয়া (Fill-in-the Blanks)

S@ifur's » Competitive Vocabulary = পানি

S@ifur's » Student Vocabulary