

খ সেট

জুনিয়র স্কুল সার্টিফিকেট পরীক্ষা,  
বণিক (সৃজনশীল + বহুনির্বাচনি অঙ্গীকরণ)

বিষয় কোড : 

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সময়—৩ ঘণ্টা

পূর্ণমান—৭০+৩০=১০০

সৃজনশীল অংশ

মান—৭০

দ্রষ্টব্য :—কোন পাশের সংখ্যা প্রশ্নের পূর্ণমান জ্ঞাপক। প্রদত্ত উদাহরণগুলো মনোযোগসহকারে পড় এবং সংশ্লিষ্ট প্রশ্নের উত্তর দাও।  
ক, খ ও গ বিভাগ থেকে দুইটি করে এবং ঘ বিভাগ থেকে একটিসহ মোট সাতটি প্রশ্নের উত্তর দিতে হবে।

ক বিভাগ—পাঠিপণিত

- |    |   | মাত্র |
|----|---|-------|
| ১। | ৭, ১৬, ২৫, ৩৪, ৪৩, .....  |       |
|    | (ক) ২৫ এবং ৩৪কে দুইটি বর্গের সমষ্টিরূপে প্রকাশ কর।  | ২     |
|    | (খ) তালিকার ২০তম সংখ্যাটি নির্ণয় কর।   | ৪     |
|    | (গ) তালিকার ১ম ৬০টি সংখ্যার সমষ্টি নির্ণয় কর।  | ৪     |
| ২। | এক ব্যক্তি বার্ষিক শতকরা ১০ টাকা মুদাকার ৬০০০ টাকা ৩ বছরের জন্য ব্যাংকে জমা রাখলেন।                                   |       |
|    | (ক) ১ম বছরান্তে মুদাকার-আসল নির্ণয় কর।   | ২     |
|    | (খ) সরল মুদাকার ও চক্রবৃদ্ধি মুদাকার পার্থক্য নির্ণয় কর।   | ৪     |
|    | (গ) একই হার সরল মুদাকার উক্ত আসল কত বছরে মুদাকার-আসলে দেড়গুণ হবে?  | ৪     |
| ৩। | একটি ঘরের সৈর্য প্রশ্নের ৪ কণ। প্রতি বর্গমিটার ১২-৫০ টাকা মরে ঘরটির মেঝে কার্পেট নিয়ে ঢাকতে মোট ৩২০০ টাকা ব্যয় হয়। |       |
|    | (ক) ঘরটির ক্ষেত্রফল নির্ণয় কর।   | ২     |
|    | (খ) ঘরটির সৈর্য ও প্রস্থ নির্ণয় কর।  | ৪     |
|    | (গ) ঘরটির উচ্চতা ৩ মিটার এবং এর দেওয়ালগুলো ২০ সে. মি. পুরু হলে চার দেওয়ালের আয়তন নির্ণয় কর।                       | ৪     |

খ বিভাগ—বীজপণিত

- |    |  |   |
|----|--|---|
| ৪। | $x^2 - \sqrt{5}x + 1 = 0$  |   |
|    | (ক) $x + \frac{1}{x}$ এর মান নির্ণয় কর।   | ২ |
|    | (খ) প্রমাণ কর যে, $x^3 - \frac{1}{x^3} = 4$  | ৪ |
|    | (গ) $x^6 - \frac{1}{x^6}$ এর মান নির্ণয় কর।   | ৪ |
| ৫। | $A = x^2 - 5x + 6$ , $B = x^2 - 9$ , $C = x^2 + 4x + 3$  |   |
|    | (ক) $\frac{C}{x^2 + x}$ কে লঘিষ্ঠ আকারে প্রকাশ কর।   | ২ |
|    | (খ) সরল কর : $\frac{1}{A} + \frac{1}{B}$   | ৪ |
|    | (গ) $\frac{1}{A} \cdot \frac{1}{B} \cdot \frac{1}{C}$ কে সাধারণ হরবিশিষ্ট ভগ্নাংশে প্রকাশ কর।        | ৪ |
| ৬। | কোন ভগ্নাংশের লবের সাথে ৩ যোগ করলে এর মান 1 হয়। আবার হরের সাথে ২ যোগ করলে এর মান $\frac{1}{2}$ হয়। |   |
|    | (ক) ভগ্নাংশটিকে $\frac{x}{y}$ ধরে সমীকরণ জোড়ি গঠন কর।   | ২ |
|    | (খ) ভগ্নাংশটি নির্ণয় কর।  | ৪ |
|    | (গ) লেখচিত্রের সাহায্যে সমীকরণ জোড়ির সমাধান কর।   | ৪ |

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