**السؤال الأول**:  **(18 علامة)**

أ) حلل كل من المقاديرالآتية: (10علامات)

1) ص2-25.......................................................................................................................................................................................

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2) س2 +8س+15 ..................................................................................................................................................................

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3) 27- س3..................................................................................................................................................................................

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5) 5س3- س2................................................................................................................................................................................

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العامل المشترك الأكبر(ع.م.أ) للمقادير الآتية: جد(ب

ص2 – 9

ص+3

ص2+5ص+6 (4علامات)

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ج) حل المعادلة الكسرية الآتية: (4علامات)

س2-7س = 5

7- س

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**السؤال الثاني**:  **(9 علامة)**

جد مجموعة حل المتباينة مع تمثيلها على خط الأعداد:

1) - 5 س + 2 ≥ - 8 ..........................................................................................................................................................

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14........................................................................................................................................> 2 س – 2 > - 14(2

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3) 2س ≥ 6س+7 > 2س-3

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**السؤال الثالث**:  **(20 علامات)**

لديك الاقتران ق (س) = س2 – 2س - 3

1) ما اتجاه منحنى الاقتران؟ ....................................................................................................................................................

2) جد معادلة محور التماثل؟ ...............................................................................................................................................

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3) هل للاقتران قيمة صغرى أم عظمى؟ وما هي؟ ....................................................................................................

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4) جد المدى؟ .....................................................................................................................................................................................

5) جد المجال؟ ..................................................................................................................................................................................

6) جد إحداثيات رأس المنحنى؟..............................................................................................................................................

7) جد أصفار الاقتران بيانيًا؟...................................................................................................................................................

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**السؤال الرابع**:  **(12 علامات)**

جد مجموعة حل المعادلات الآتية وفق الطريقة المبينة جانبًا.

1) س2-2س=24 (التحليل)

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2) س2-10س+9=0 (إكمال المربع)

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3) س2 – 3 س – 4=0 (بالقانون العام)

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**السؤال الخامس**:  **(13 علامة)**

أ) في تجربة إلقاء حجر نرد ثم إلقاء قطعة نقد وملاحظة عدد النقاط على الوجه العلوي لحجر النرد والوجه الظاهر لقطعة النقد اكتب الفضاء العيني للتجربة العشوائية السابقة؟ (5 علامات)

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ب) كم عددًا مكونًا من منزلتين مختلفتين يمكن تكوينه من مجموعة الأرقام الآتية: {5،4،3،2،1}؟ (3 علامات)

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ج) في تجربة اختيار عدد واحد من مجموعة الأعداد { 7،8،5،9،2،4،3،1 } عشوائيًا ، إذا كان:

ح1: العدد المختار أكبر من أو يساوي 5

ح2: العدد المختار عدد فردي (5 علامات)

فجد الآتي:

ح1 ................................................................................................................................................................................................................

ح2 ..............................................................................................................................................................................................................

ح1U ح2..................................................................................................................................................................................................

ل(ح1)..........................................................................................................................................................................................................

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**السؤال السادس**:  **(8 علامة)**

أ) أكمل الفراغ: (5 علامات)

1) طول الفترة ف =(-6 ، 2 ] هو.......................................................................................................................................................

2) تمثيل الفترة ف = [ -5، ٣ ) على خط الأعداد هو ............................................................................................................

3) إشارة مميز المعادلة التربيعية المرافقة للاقتران ق(س)= 1- س – س 2هي ....................................................

4) قيمة المميز للمعادلة التربيعية ذات الحل الوحيد هي ........................................................................................................

5) الحادث الذي يحتوي على جميع عناصر الفضاء العيني يسمى.....................................................................................

ب) عددين موجبين، مجموعهما 10، ومجموع مربعيهما 58،ما هما؟ (3 علامات)

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**انتهت الأسئلة**